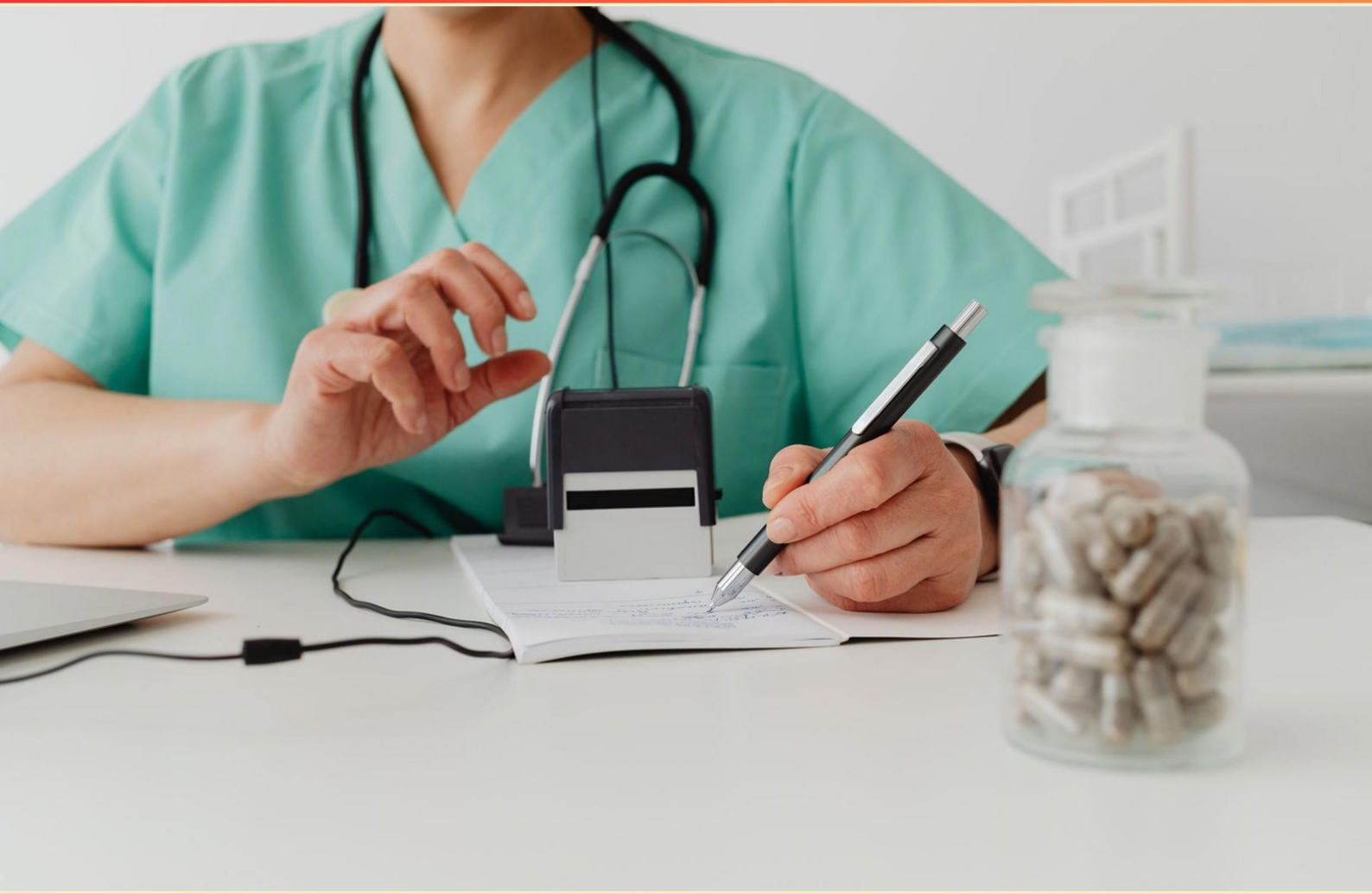


NBRC THERAPIST MULTIPLE-CHOICE (TMC) PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

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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. Which medication is recommended for promoting bronchodilation when a patient is unresponsive to beta-agonist treatments?**
 - A. Pirbuterol (Maxair)
 - B. Salmeterol (Serevent)
 - C. Aminophylline
 - D. Xopenex
- 2. What adjustment should be made to a ventilator if the rate appears to be lagging behind the set rate?**
 - A. Check the circuit for obstructions
 - B. Increase tidal volume settings
 - C. Reassess the oxygen level
 - D. Examine the ventilator's power source
- 3. In which situation might you choose non-invasive ventilation as a treatment modality?**
 - A. Patient in respiratory arrest
 - B. Patient with acute exacerbation of COPD
 - C. Patient with obstructive sleep apnea
 - D. Patient suffering from a cardiovascular incident
- 4. What is the appropriate cuff pressure for a tracheostomy tube immediately following insertion?**
 - A. A. Pressurize the cuff to 20 cm H2O.
 - B. B. Make the pilot balloon taut.
 - C. C. Disable vocal speech.
 - D. D. Prevent air passage around the cuff at peak inspiration.
- 5. Upon receiving a low-volume alarm on a ventilator, what should the therapist examine first?**
 - A. Drain condensate from the expiratory limb
 - B. Remove kinks in the inspiratory pressure line
 - C. Examine the ET tube for kinks or occlusions
 - D. Examine the function of the exhalation valve

- 6. In patients experiencing hypoxia, what is the primary goal of treatment?**
- A. Reduce airway resistance
 - B. Increase oxygenation
 - C. Stabilize blood pressure
 - D. Minimize respiratory effort
- 7. Which condition would a thoracentesis be most appropriate for?**
- A. atelectasis
 - B. complete opacification of the right lung
 - C. small pneumothorax
 - D. pericardial contusion
- 8. A mechanically ventilated patient on an FIO₂ of 1.0 has an A-a gradient of 275 mmHg. What does this finding indicate?**
- A. PEEP is indicated
 - B. Hyperbaric therapy is indicated
 - C. IPPB is indicated
 - D. The patient has a shunt
- 9. What is the maximum negative pressure recommended for suctioning a 4-year-old patient with a 5.0 mm endotracheal tube?**
- A. -100 mm Hg
 - B. -80 mm Hg
 - C. -110 mm Hg
 - D. -120 mm Hg
- 10. For an adult patient with asthma having adverse reactions to Albuterol treatments, what modification should be considered?**
- A. increase dosage to 1.0 mL
 - B. decrease dosage to 0.15 mL
 - C. switch to Xopenex 0.63 mg
 - D. switch to Mucomyst 20%

Answers

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

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Explanations

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1. Which medication is recommended for promoting bronchodilation when a patient is unresponsive to beta-agonist treatments?

- A. Pirbuterol (Maxair)
- B. Salmeterol (Serevent)
- C. Aminophylline**
- D. Xopenex

Aminophylline is a xanthine derivative that acts as a bronchodilator and is often used in cases where patients show insufficient response to beta-agonist treatments. When beta-agonists, which stimulate the sympathetic nervous system to relax bronchial smooth muscles, fail to provide adequate bronchodilation, aminophylline can be employed as an alternative. It works through phosphodiesterase inhibition, leading to increased levels of cyclic AMP, which further promotes bronchodilation. This option offers a different mechanism of action than beta-agonists, which can be crucial for patients whose condition is unresponsive to conventional therapy. In those situations, aminophylline may help improve airflow and alleviate symptoms by relaxing the bronchial smooth muscles, thus providing an additional tool in the management of acute bronchospasm. Other medications listed, while all having important roles in respiratory therapy, are primarily beta-agonists or bronchodilators with different characteristics. Therefore, they may not provide the necessary alternative therapy when beta-agonists alone are ineffective.

2. What adjustment should be made to a ventilator if the rate appears to be lagging behind the set rate?

- A. Check the circuit for obstructions**
- B. Increase tidal volume settings
- C. Reassess the oxygen level
- D. Examine the ventilator's power source

When the ventilator's rate appears to be lagging behind the set rate, checking the circuit for obstructions is crucial. An obstruction can lead to inadequate airflow, causing a delay in delivering breaths as prescribed by the ventilator settings. This can result in hypoventilation and decreased patient ventilation efficiency, potentially affecting gas exchange and patient safety. Identifying and resolving obstructions, such as kinks, secretions, or water accumulation in the circuit, ensures that the ventilator can effectively deliver the set breaths without delay. Once the circuit is clear and functioning properly, the ventilator will be able to maintain the desired rate of ventilation, thus supporting the patient's respiratory needs more effectively.

3. In which situation might you choose non-invasive ventilation as a treatment modality?

- A. Patient in respiratory arrest
- B. Patient with acute exacerbation of COPD**
- C. Patient with obstructive sleep apnea
- D. Patient suffering from a cardiovascular incident

Choosing non-invasive ventilation (NIV) as a treatment modality is particularly appropriate for a patient experiencing an acute exacerbation of chronic obstructive pulmonary disease (COPD). In this situation, NIV can help improve ventilation and alleviate respiratory distress without the need for intubation and invasive mechanical ventilation. By providing positive pressure to assist with breathing, NIV can enhance gas exchange and reduce the work of breathing, which is crucial during an acute exacerbation when the patient may struggle with increased airway resistance and inadequate airflow. NIV is an effective option in chronic respiratory conditions and is often used in COPD management because it can reduce hospital admissions, improve patient comfort, and lower the risk of further complications associated with invasively managing respiratory failure.

4. What is the appropriate cuff pressure for a tracheostomy tube immediately following insertion?

- A. A. Pressurize the cuff to 20 cm H2O.**
- B. B. Make the pilot balloon taut.
- C. C. Disable vocal speech.
- D. D. Prevent air passage around the cuff at peak inspiration.

The appropriate cuff pressure for a tracheostomy tube immediately following insertion is typically around 20 cm H2O. This level of pressure is important for ensuring that the cuff effectively isolates the airway, which helps prevent aspiration of secretions and allows for controlled ventilation. Maintaining the cuff pressure at this level is crucial, as it strikes a balance between producing a seal to prevent air leakage and minimizing the risk of injury to the tracheal mucosa. Pressures that are too high can lead to ischemia of the tracheal tissue, while pressures that are too low may not adequately prevent air escape during mechanical ventilation or spontaneous breathing. The other options provided do not sufficiently address the immediate postoperative requirements associated with cuff inflation. Making the pilot balloon taut does not indicate a specific and safe cuff pressure, and disabling vocal speech is not an immediate concern following insertion. Additionally, while preventing air passage around the cuff is necessary, it does not specify the actual cuff pressure needed to achieve that goal. Proper cuff management post-insertion is crucial for patient safety and effective ventilation.

5. Upon receiving a low-volume alarm on a ventilator, what should the therapist examine first?

- A. Drain condensate from the expiratory limb
- B. Remove kinks in the inspiratory pressure line
- C. Examine the ET tube for kinks or occlusions
- D. Examine the function of the exhalation valve**

When confronted with a low-volume alarm on a ventilator, examining the function of the exhalation valve is critical because this component plays a vital role in maintaining proper ventilation. The exhalation valve allows for the release of exhaled air from the patient back into the ventilator circuit. If the exhalation valve is not functioning correctly or is stuck, it can lead to incomplete exhalation, resulting in insufficient tidal volumes being detected by the ventilator, thereby triggering a low-volume alarm. Addressing the exhalation valve first allows the therapist to rule out one of the most likely causes of the alarm condition. If the exhalation valve is operating correctly, the therapist can then proceed to investigate other potential issues, such as checking the endotracheal tube for kinks or occlusions or looking for kinks in the pressure lines. However, the exhalation valve is often the most immediate area of concern when dealing with an alarm related to volume delivery.

6. In patients experiencing hypoxia, what is the primary goal of treatment?

- A. Reduce airway resistance
- B. Increase oxygenation**
- C. Stabilize blood pressure
- D. Minimize respiratory effort

The primary goal of treatment in patients experiencing hypoxia is to increase oxygenation. Hypoxia refers to a deficiency in the amount of oxygen reaching the tissues, which can lead to various complications and can affect organ function. Therefore, the immediate focus in managing hypoxia is to ensure that the patient receives adequate oxygen, either through supplemental oxygen therapy, mechanical ventilation, or other interventions aimed at enhancing oxygen delivery to the body. Increasing oxygenation addresses the root cause of hypoxia, which is insufficient oxygen levels in the blood. This can involve methods such as providing supplemental oxygen through different delivery systems or optimizing ventilation strategies to improve gas exchange in the lungs. Ensuring adequate oxygen levels is crucial for maintaining cellular metabolism and preventing further complications associated with prolonged hypoxia. While other options may play supportive roles in managing a patient's condition, such as reducing airway resistance or stabilizing blood pressure, they do not directly target the primary issue of insufficient oxygenation. Addressing these supportive measures is essential but secondary to the fundamental need to augment oxygen levels in patients facing hypoxic conditions.

7. Which condition would a thoracentesis be most appropriate for?

- A. atelectasis
- B. complete opacification of the right lung
- C. small pneumothorax**
- D. pericardial contusion

A thoracentesis is a medical procedure used to remove fluid from the pleural space, which is the area between the lungs and the chest wall. This procedure is particularly indicated when there is an accumulation of excess fluid due to conditions such as pleural effusion, which can impair breathing and lead to respiratory distress. In the context of the choices provided, a small pneumothorax involves the presence of air in the pleural space, which can also be associated with respiratory difficulty. While a thoracentesis is not the primary treatment for a pneumothorax (where instead a needle decompression or chest tube may be used), the fluid that can accumulate alongside or due to a pneumothorax can sometimes warrant this procedure. Therefore, among the options available, a small pneumothorax is the closest condition for which a thoracentesis might be considered appropriate, especially if there is a need to address associated issues in the pleural space. Conversely, atelectasis primarily involves lung collapse without pleural fluid needing removal, complete opacification indicates full lung involvement likely due to pathological processes, and a pericardial contusion relates to injury around the heart rather than the pleural space.

8. A mechanically ventilated patient on an FIO₂ of 1.0 has an A-a gradient of 275 mmHg. What does this finding indicate?

- A. PEEP is indicated**
- B. Hyperbaric therapy is indicated
- C. IPPB is indicated
- D. The patient has a shunt

The finding of a high A-a gradient, particularly at a FIO₂ of 1.0, is indicative of a significant impairment in oxygenation, often due to a shunting of blood. A shunt refers to a portion of blood that bypasses the alveoli where gas exchange occurs, resulting in hypoxemia that cannot be corrected by simply increasing the FIO₂. In this context, the A-a gradient of 275 mmHg is markedly elevated, suggesting that despite administering pure oxygen, there is still inadequate oxygenation occurring. This is typically reflective of either intrapulmonary or extrapulmonary shunting. PEEP (Positive End-Expiratory Pressure) can be an effective intervention for such scenarios, as it helps open collapsed alveoli and improves ventilation-perfusion matching, ultimately enhancing oxygenation. Thus, the correct choice highlights the need for PEEP to better manage the patient's respiratory status in light of the shunting. The other options, while potentially relevant in other circumstances, do not directly address the specific pathophysiology indicated by such a high A-a gradient under high FIO₂ conditions.

9. What is the maximum negative pressure recommended for suctioning a 4-year-old patient with a 5.0 mm endotracheal tube?

- A. -100 mm Hg**
- B. -80 mm Hg
- C. -110 mm Hg
- D. -120 mm Hg

The maximum negative pressure recommended for suctioning a pediatric patient, such as a 4-year-old with a 5.0 mm endotracheal tube, is generally set to provide effective suctioning without causing trauma to the airways or other complications. The use of -80 mm Hg is generally considered safe and effective for children in this age group and with this size of endotracheal tube. Suctioning at higher pressures, such as -100 mm Hg or beyond, can increase the risk of damaging the mucosa of the trachea and cause irritation or bleeding. The guidelines emphasize maintaining a lower suction pressure to ensure patient safety while still being effective in clearing secretions. Therefore, employing a maximum negative pressure of -80 mm Hg aligns with the recommended practice for pediatric suctioning. This approach helps avoid unnecessary complications while effectively managing airway clearance.

10. For an adult patient with asthma having adverse reactions to Albuterol treatments, what modification should be considered?

- A. increase dosage to 1.0 mL
- B. decrease dosage to 0.15 mL
- C. switch to Xopenex 0.63 mg**
- D. switch to Mucomyst 20%

In the scenario presented, the correct approach is to switch the patient from Albuterol to Xopenex, specifically at a dose of 0.63 mg. Xopenex, or levalbuterol, is a selective beta-2 adrenergic agonist that is often prescribed for patients who experience adverse reactions or increased side effects from Albuterol. The reason for this switch is based on Xopenex's pharmacological properties, which can provide effective bronchodilation while minimizing side effects. Patients may respond better to Xopenex due to its different composition, as it is the R-enantiomer of Albuterol, which primarily provides the desired therapeutic effects while potentially reducing side effects such as increased heart rate or nervousness. This makes it a suitable alternative for managing asthma symptoms when Albuterol leads to unwanted effects. Increasing the dosage of Albuterol may risk exacerbating the adverse reactions, and decreasing the dosage might not provide adequate symptom relief. Switching to Mucomyst (acetylcysteine) is not appropriate in this context, as Mucomyst is a mucolytic agent used for breaking down mucus, not as a bronchodilator for asthma management. Therefore, switching to Xopenex is a strategic modification that addresses both the patient's

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://nbrctmc.examzify.com>

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

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