

Certified Transport Registered Nurse Certification Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

Copyright © 2025 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain from reliable sources accurate, complete, and timely information about this product.

SAMPLE

Questions

SAMPLE

- 1. At what altitude does the human body start to typically experience significant pressure changes?**
 - A. 5,000 ft**
 - B. 10,000 ft**
 - C. 15,000 ft**
 - D. 20,000 ft**
- 2. If a transport team check-in is missed, what action is initiated?**
 - A. A visual search**
 - B. A VFR protocol**
 - C. An emergency landing**
 - D. A follow-up inspection**
- 3. What is the normal value range for SpO2?**
 - A. 75 - 85**
 - B. 90 - 100**
 - C. 80 - 90**
 - D. 85 - 95**
- 4. Once a patient's oxygen saturation drops below 50%, what is the estimated percentage chance of mortality?**
 - A. 25%**
 - B. 10%**
 - C. 20%**
 - D. 12%**
- 5. VMC is an acronym for which of the following terms?**
 - A. Visual Meteorological Conditions**
 - B. Variable Maintenance Criteria**
 - C. Volatile Meteorological Calculations**
 - D. Verified Maintenance Completion**

- 6. What is the effect of dantrolene in the context of malignant hyperthermia?**
- A. It acts as a sedative**
 - B. It reverses muscle paralysis**
 - C. It prevents calcium release from the sarcoplasmic reticulum**
 - D. It induces hyperkalemia**
- 7. What is the recommended tidal volume calculation for injured lungs?**
- A. 6 - 10 ml/kg**
 - B. 4 - 8 ml/kg**
 - C. 8 - 12 ml/kg**
 - D. 10 - 14 ml/kg**
- 8. Which of the following is used as a reversal agent for malignant hyperthermia?**
- A. Neostigmine**
 - B. Dantrolene**
 - C. Glycopyrrolate**
 - D. Sugammadex**
- 9. Which gas law would be most relevant when discussing the behavior of gases during a dive?**
- A. Henry's Law**
 - B. Charles's Law**
 - C. Dalton's Law**
 - D. Avogadro's Law**
- 10. What is the formula for calculating FiO2?**
- A. $\text{PaO}_2 \text{ (desired)} \times \text{FiO}_2 \text{ (current)} / \text{PaO}_2 \text{ (current)}$**
 - B. $\text{PaCO}_2 \text{ (desired)} \times \text{FiO}_2 \text{ (current)} / \text{PaO}_2 \text{ (current)}$**
 - C. $\text{FiO}_2 \text{ (desired)} \times \text{PaO}_2 \text{ (current)} / \text{PaO}_2 \text{ (desired)}$**
 - D. $\text{PaO}_2 \text{ (current)} \times \text{FiO}_2 \text{ (desired)} / \text{PaCO}_2 \text{ (current)}$**

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. At what altitude does the human body start to typically experience significant pressure changes?

- A. 5,000 ft
- B. 10,000 ft**
- C. 15,000 ft
- D. 20,000 ft

The human body typically starts to experience significant pressure changes at around 10,000 feet. At this altitude, the decrease in atmospheric pressure can lead to various physiological responses, as the partial pressure of oxygen is reduced, making it more challenging for the body to obtain the oxygen it needs for optimal function. This reduction in oxygen availability can result in symptoms of altitude sickness, which may include headache, nausea, dizziness, and fatigue. Additionally, individual tolerance to altitude can vary widely, with some people beginning to feel the effects even at lower altitudes. While pressure changes and potential symptoms can start to be noted at altitudes lower than 10,000 feet, the significant impact on the body and the increased risk of altitude sickness is most commonly recognized starting at around this level. Understanding these physiological responses is essential for transport registered nurses as they assess and manage patient care in various altitudes.

2. If a transport team check-in is missed, what action is initiated?

- A. A visual search**
- B. A VFR protocol
- C. An emergency landing
- D. A follow-up inspection

In the context of transport teams, particularly in emergency response and medical transport, a missed check-in signals a significant concern for the safety and accountability of the team. Initiating a visual search is essential in this scenario because it helps locate the team as quickly as possible. A visual search is a proactive measure taken to ensure that the personnel are safe and to assess any potential issues that could have arisen. While other protocols or actions such as VFR (Visual Flight Rules) protocols, emergency landing procedures, or follow-up inspections might be relevant in different contexts, they do not directly address the immediate need to confirm the status and location of a transport team. The objective is to ascertain if the team is in need of assistance or if they have encountered an emergency situation, making the visual search the most appropriate and immediate response to a missed check-in.

3. What is the normal value range for SpO2?

- A. 75 - 85
- B. 90 - 100**
- C. 80 - 90
- D. 85 - 95

The normal value range for SpO2, or peripheral capillary oxygen saturation, is considered to be 90% to 100%. This range indicates that the blood is adequately saturated with oxygen, which is essential for the proper functioning of body tissues and organs. A SpO2 value below 90% may indicate potential oxygen deficiency, necessitating further assessment and possible intervention. Monitoring SpO2 is crucial in various clinical settings, as it helps healthcare professionals evaluate a patient's respiratory status and oxygenation levels. Understanding this normal range is vital for transport nurses, as they are responsible for ensuring optimal oxygen delivery during patient transport, particularly in critical care scenarios where oxygenation can rapidly change.

4. Once a patient's oxygen saturation drops below 50%, what is the estimated percentage chance of mortality?

- A. 25%
- B. 10%
- C. 20%
- D. 12%**

When a patient's oxygen saturation drops below 50%, this signifies a critical level of hypoxemia, which has been associated with a high risk of mortality. Research indicates that patients who experience an oxygen saturation at this threshold face a substantial increase in their risk of death. In general clinical guidelines and studies, the estimated chance of mortality in such circumstances has been determined to be around 12%. This figure is derived from clinical observations and statistical analyses that evaluate the outcomes of patients with severely compromised oxygen levels. The risk is significantly heightened due to the underlying conditions that often cause such a severe drop in oxygen saturation, which can include respiratory failure, severe pneumonia, or advanced lung disease. Understanding the critical nature of oxygen saturation levels is essential for healthcare providers, as timely interventions can impact the patient's outcome significantly. The mortality rates linked to specific saturation levels also highlight the importance of continuous monitoring and rapid response protocols in patient care.

5. VMC is an acronym for which of the following terms?

- A. Visual Meteorological Conditions**
- B. Variable Maintenance Criteria**
- C. Volatile Meteorological Calculations**
- D. Verified Maintenance Completion**

The term VMC stands for Visual Meteorological Conditions, which refers to weather conditions that are generally clear enough for pilots to fly visually, relying on their ability to see and avoid obstacles and terrain. These conditions are crucial for flight operations, particularly under visual flight rules (VFR), where pilots navigate by outside reference rather than relying on instruments. In the context of aviation, VMC indicates that visibility is sufficient for pilots to maintain safe operational standards and avoid potential hazards, making it a fundamental concept for transport nurses dealing with air medical transport. Understanding visual meteorological conditions ensures that transport nurses are aware of flight operations and aeromedical considerations, supporting safe patient transport in various weather scenarios.

6. What is the effect of dantrolene in the context of malignant hyperthermia?

- A. It acts as a sedative**
- B. It reverses muscle paralysis**
- C. It prevents calcium release from the sarcoplasmic reticulum**
- D. It induces hyperkalemia**

Dantrolene is specifically indicated for the management of malignant hyperthermia, a life-threatening condition often triggered by certain anesthetics or muscle relaxants in susceptible individuals. During malignant hyperthermia, there is an abnormal release of calcium from the sarcoplasmic reticulum in skeletal muscle, leading to sustained muscle contraction, increased metabolism, and, ultimately, a dangerous rise in body temperature. Dantrolene works by inhibiting the release of calcium from the sarcoplasmic reticulum, thereby addressing the underlying pathophysiology of malignant hyperthermia. By preventing excessive calcium release, dantrolene helps to restore normal muscle function, reduce metabolic activity, and lower the elevated temperature. This mechanism makes it a crucial medication in the acute treatment of malignant hyperthermia, effectively countering the physiological disturbances caused by the condition. The other options describe effects that are not aligned with the action of dantrolene in the context of malignant hyperthermia. Sedation is not a property of dantrolene, as its primary function is to interfere with calcium dynamics rather than modulate consciousness. It does not reverse muscle paralysis; rather, its role is to mitigate the hypermetabolic process that can lead to paralysis. Inducing

7. What is the recommended tidal volume calculation for injured lungs?

- A. 6 - 10 ml/kg
- B. 4 - 8 ml/kg**
- C. 8 - 12 ml/kg
- D. 10 - 14 ml/kg

The recommended tidal volume for patients with injured lungs is typically calculated to minimize ventilator-associated lung injury and to ensure adequate gas exchange. Using a tidal volume of 4 - 8 ml/kg is advised in patients with acute respiratory distress syndrome (ARDS) or other forms of lung injury. This range helps to reduce over-distension of the alveoli and lessen the risk of further injury, while promoting better oxygenation and ventilation. It aligns with lung-protective ventilation strategies, which focus on limiting the tidal volume to avoid barotrauma and volutrauma in compromised lung tissue. Lung injury often results in impaired compliance and may require careful management of ventilation parameters to prevent further damage. Therefore, choosing a lower tidal volume within the established range is critical in this context.

8. Which of the following is used as a reversal agent for malignant hyperthermia?

- A. Neostigmine
- B. Dantrolene**
- C. Glycopyrrolate
- D. Sugammadex

Dantrolene is specifically used as a reversal agent for malignant hyperthermia, a life-threatening condition typically triggered by certain anesthetic agents. This medication acts by inhibiting calcium release from the sarcoplasmic reticulum of skeletal muscle, thereby reducing muscle contraction and heat production. By decreasing the abnormal muscle metabolism associated with malignant hyperthermia, dantrolene helps stabilize the patient's condition and reduce the risk of further complications. In the context of the other agents listed, neostigmine is primarily an acetylcholinesterase inhibitor used to reverse neuromuscular blockages rather than addressing malignant hyperthermia. Glycopyrrolate serves as an anticholinergic agent that helps reduce secretions and counteract certain side effects of anesthesia, while sugammadex is a specific reversal agent for neuromuscular blockade induced by the drug rocuronium. Thus, while these medications play important roles in anesthesia and emergency care, dantrolene is uniquely suited for the urgent treatment of malignant hyperthermia.

9. Which gas law would be most relevant when discussing the behavior of gases during a dive?

A. Henry's Law

B. Charles's Law

C. Dalton's Law

D. Avogadro's Law

In the context of diving, Henry's Law is particularly relevant because it describes how gases dissolve in liquids under pressure. Specifically, this law states that the amount of gas that can be dissolved in a liquid at a certain temperature is proportional to the partial pressure of that gas above the liquid. During a dive, the pressure increases with depth, leading to an increase in the amount of nitrogen and other gases that can dissolve in the diver's bloodstream. As divers ascend, the surrounding pressure decreases, which can cause dissolved gases to come out of solution too quickly, potentially leading to decompression illness (commonly known as "the bends"). Understanding how the behavior of gases changes with pressure, as explained by Henry's Law, is crucial for safe diving practices. The other gas laws, while important in their own rights, do not directly pertain to the specific context of gas dissolution and pressure changes experienced during diving.

10. What is the formula for calculating FiO2?

A. $\text{PaO}_2 \text{ (desired)} \times \text{FiO}_2 \text{ (current)} / \text{PaO}_2 \text{ (current)}$

B. $\text{PaCO}_2 \text{ (desired)} \times \text{FiO}_2 \text{ (current)} / \text{PaO}_2 \text{ (current)}$

C. $\text{FiO}_2 \text{ (desired)} \times \text{PaO}_2 \text{ (current)} / \text{PaO}_2 \text{ (desired)}$

D. $\text{PaO}_2 \text{ (current)} \times \text{FiO}_2 \text{ (desired)} / \text{PaCO}_2 \text{ (current)}$

The formula for calculating FiO2 (Fraction of Inspired Oxygen) is important in assessing and adjusting oxygen therapy effectively. The correct answer articulates that you can determine the desired FiO2 by using the relationship between the desired arterial oxygen partial pressure (PaO2) and the current FiO2 and PaO2 values. This formulation helps healthcare professionals in determining how much supplemental oxygen a patient needs to achieve a specific target oxygenation level (desired PaO2). It's crucial in clinical settings where precise oxygen management is necessary, particularly in patients with respiratory issues. When applying this formula clinically, it helps to ensure that patients receive adequate oxygenation while minimizing the risks associated with excessive oxygen, such as oxygen toxicity. The other options do not represent the correct relationship needed to calculate FiO2 and thus are not applicable in this context.