# New South Wales Ambulance Pharmacology Practice Exam (Sample)

## Study Guide


**Everything you need from our exam experts!**

# Table of Contents


**Copyright** ..... **1**

**Table of Contents** ..... **2**

**Introduction** ..... **3**

**How to Use This Guide** ..... **4**

**Questions** ..... **5**

**Answers** ..... **8**

**Explanations** ..... **10**

**Next Steps** ..... **16**

# 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. What type of medication is Metoclopramide?**

**A. Pain reliever**

**B. Anti-nauseant and anti-emetic**

**C. Antibiotic**

**D. Stimulant**

**2. What is one of the actions of oxytocin?**

**A. It induces muscle relaxation**

**B. It stimulates uterine muscle contractions**

**C. It decreases heart rate**

**D. It enhances oxygen transport**

**3. What effect does Naloxone primarily reverse in patients?**

**A. Increased heart rate**

**B. Respiratory depression**

**C. Fever and chills**

**D. Muscle spasms**

**4. Which of the following statements about Oxygen is correct?**

**A. It is a colored and odorous gas**

**B. It is an essential nutrient**

**C. It is a natural colorless and odorless gas**

**D. It is primarily produced by animal respiration**

**5. What are the contraindications for using Fentanyl?**

**A. Patients over 65 years old**

**B. Altered level of consciousness**

**C. History of diabetes**

**D. Previous surgery**

**6. Sodium Bicarbonate can cause which of the following acute conditions?**

**A. Hyperkalemia**

**B. Hypotension**

**C. Dysrhythmias**

**D. Respiratory failure**

**7. What type of drug is Morphine?**

**A. Anticonvulsant**

**B. Non-opioid analgesic**

**C. Opioid analgesic**

**D. Antipsychotic**

**8. What type of drug is Frusemide?**

**A. Diuretic**

**B. Analgesic**

**C. Antibiotic**

**D. Beta-blocker**

**9. Which of the following is a possible adverse effect of Benzylpenicillin?**

**A. Nausea and vomiting**

**B. Urticaria and angio-oedema**

**C. Diarrhea**

**D. Increased appetite**

**10. What is a contraindication for Glucose Gel?**

**A. High blood sugar**

**B. Decreased level of consciousness or altered gag reflex**

**C. Gastrointestinal bleeding**

**D. Severe head trauma**

# Answers

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

# Explanations

## 1. What type of medication is Metoclopramide?

**A. Pain reliever**

**B. Anti-nauseant and anti-emetic**

**C. Antibiotic**

**D. Stimulant**

**Metoclopramide is classified as an anti-nauseant and anti-emetic medication. It primarily affects the gastrointestinal tract and the central nervous system. By blocking dopamine receptors in the brain, Metoclopramide helps to reduce feelings of nausea and prevent vomiting. It is commonly used in situations where patients are experiencing nausea due to various causes, including chemotherapy, surgery, or gastrointestinal disorders. In addition to its anti-nausea effects, Metoclopramide also has prokinetic properties, meaning it can help stimulate movements in the stomach and intestines, which aids in the treatment of gastroparesis and helps with the management of conditions where gastric emptying is delayed. Other types of medications listed do not provide the same functions as Metoclopramide. Pain relievers are designed specifically to alleviate pain, antibiotics are used to combat bacterial infections, and stimulants increase alertness and energy levels but do not exhibit anti-nauseant properties. Thus, Metoclopramide's classification as an anti-nauseant and anti-emetic is accurate.**

## 2. What is one of the actions of oxytocin?

**A. It induces muscle relaxation**

**B. It stimulates uterine muscle contractions**

**C. It decreases heart rate**

**D. It enhances oxygen transport**

**One of the actions of oxytocin is that it stimulates uterine muscle contractions. Oxytocin is a hormone produced in the hypothalamus and released by the posterior pituitary gland. It plays a crucial role in childbirth by increasing the frequency and intensity of uterine contractions during labor, facilitating the delivery process. This action is vital for the progression of labor, as stronger and more frequent contractions help to push the fetus down the birth canal. The other options do not accurately reflect the primary actions of oxytocin. For example, oxytocin does not induce muscle relaxation; instead, it promotes contraction. Similarly, while heart rate can be influenced by various hormones, oxytocin is not primarily known for decreasing heart rate, and its effects on vital signs are minimal compared to other hormones. Lastly, oxytocin is not involved in enhancing oxygen transport; that function is more closely associated with hemoglobin in red blood cells rather than with any direct action of oxytocin.**

## 3. What effect does Naloxone primarily reverse in patients?

**A. Increased heart rate**

**B. Respiratory depression**

**C. Fever and chills**

**D. Muscle spasms**

**Naloxone primarily reverses respiratory depression, which is a critical effect of opioid overdose. Opioids bind to specific receptors in the brain that not only provide pain relief but also suppress the respiratory centers. When someone experiences an overdose, their respiratory function can become severely impaired, leading to shallow or halted breathing. Naloxone is an opioid antagonist, meaning it competes with opioids for the same receptor sites and effectively displaces them. By doing so, it restores normal respiratory function. Administering Naloxone can rapidly improve the patient's breathing and oxygenation, which are vital for survival in cases of opioid overdose. This makes it an essential drug in pre-hospital settings where quick intervention can save lives. The other options, while relevant to different medical conditions, are not primarily influenced by Naloxone. For instance, increased heart rate can occur for various reasons not solely related to opioid action. Fever and chills are typically indicative of infections or other systemic responses, and muscle spasms may relate to different neurological or musculoskeletal issues. None of these conditions are reversed through the action of Naloxone as effectively as respiratory depression is addressed.**

## 4. Which of the following statements about Oxygen is correct?

**A. It is a colored and odorous gas**

**B. It is an essential nutrient**

**C. It is a natural colorless and odorless gas**

**D. It is primarily produced by animal respiration**

**Oxygen is correctly described as a natural colorless and odorless gas. In its gaseous state at room temperature and under standard atmospheric pressure, oxygen does not possess any color or smell, making it undetectable to the human senses in its pure form. This characteristic is important because it aligns with its behavior in biological and environmental contexts, where it plays a critical role in respiration and combustion processes. The other options contain inaccuracies that do not align with the properties and roles of oxygen. For instance, oxygen being described as a colored and odorous gas misrepresents its physical properties. Additionally, while oxygen is essential for various biological processes, it is not classified as a nutrient like carbohydrates, proteins, or fats. Lastly, the statement regarding oxygen being primarily produced by animal respiration is misleading, as oxygen is mainly produced through photosynthesis by plants, algae, and certain bacteria, while animals utilize oxygen during respiration.**

## 5. What are the contraindications for using Fentanyl?

**A. Patients over 65 years old**

**B. Altered level of consciousness**

**C. History of diabetes**

**D. Previous surgery**

**Using Fentanyl has specific contraindications, and altered levels of consciousness is a key concern. Fentanyl is a potent opioid analgesic that can significantly depress the central nervous system, leading to increased risks of respiratory depression, sedation, and complications in patients who are already experiencing cognitive impairment or reduced responsiveness. In patients with an altered level of consciousness, there is a greater potential for respiratory distress or failure, making it unsafe to administer Fentanyl in these situations. Other factors, while they may influence treatment decisions, do not serve as strict contraindications for Fentanyl use. For instance, while patients over 65 years old may be at a higher risk for side effects due to age-related changes and potential polypharmacy issues, age alone does not preclude the use of Fentanyl as long as careful monitoring is in place. Similarly, a history of diabetes or previous surgeries doesn't inherently restrict the use of this medication unless there are specific complications or conditions associated with those histories that would further complicate the opioid's effects. However, for a patient with an altered level of consciousness, the risks of administering Fentanyl outweigh the benefits, making this condition a critical contraindication.**

## 6. Sodium Bicarbonate can cause which of the following acute conditions?

**A. Hyperkalemia**

**B. Hypotension**

**C. Dysrhythmias**

**D. Respiratory failure**

**Sodium Bicarbonate can lead to dysrhythmias, particularly in certain clinical contexts. When administered, it can influence the pH balance of the blood, and the rapid change in pH may affect the myocardium, leading to alterations in cardiac conduction and potentially triggering dysrhythmias. This is especially significant in patients with pre-existing heart conditions or those experiencing metabolic acidosis, where the heart's electrical stability might already be compromised. In addition, the effect of Sodium Bicarbonate on potassium levels can contribute to arrhythmogenic conditions. In treating conditions such as hyperkalemia, Sodium Bicarbonate shifts potassium into cells, which can lead to changes in cardiac rhythm and increase the risk of dysrhythmias. Thus, the administration of Sodium Bicarbonate has to be carefully monitored, particularly in emergency settings, to avoid worsening cardiac conditions and to manage any induced dysrhythmias efficiently.**

## 7. What type of drug is Morphine?

**A. Anticonvulsant**

**B. Non-opioid analgesic**

**C. Opioid analgesic**

**D. Antipsychotic**

**Morphine is classified as an opioid analgesic, which means it is a powerful medication specifically designed to relieve pain. This drug interacts primarily with the body's opioid receptors, which are found in the brain, spinal cord, and other areas of the body to reduce the perception of pain. Opioid analgesics like morphine are commonly used for managing moderate to severe pain, particularly after surgery or injury, as well as in chronic pain conditions. The effectiveness of morphine in relieving pain is attributed to its ability to alter the way the brain and nervous system respond to pain signals. In clinical practice, it is crucial for medical practitioners to understand and utilize opioid analgesics appropriately due to their potent effects and potential for side effects, including respiratory depression and the risk of dependency. Understanding morphine as an opioid analgesic helps delineate its role in pain management from that of other classes of drugs, such as anticonvulsants, non-opioid analgesics, or antipsychotics, which serve different medical purposes and operate through different mechanisms in the body.**

## 8. What type of drug is Frusemide?

**A. Diuretic**

**B. Analgesic**

**C. Antibiotic**

**D. Beta-blocker**

**Frusemide, commonly known as furosemide, is classified as a diuretic. Specifically, it is a loop diuretic, which works by inhibiting the reabsorption of sodium and chloride in the ascending loop of Henle within the nephron of the kidney. This action results in increased diuresis, meaning it promotes the excretion of urine, which is particularly useful in managing conditions such as heart failure, edema, and hypertension. The mechanism of action is crucial in understanding its therapeutic benefits; by eliminating excess fluid from the body, it helps reduce swelling and lower blood pressure. This makes Frusemide an essential medication in emergency and chronic care settings where fluid management is vital. In contrast, analgesics are primarily used for pain relief, antibiotics combat bacterial infections, and beta-blockers lower blood pressure and reduce heart rate; none of these categories perform the diuretic function that Frusemide does.**

## 9. Which of the following is a possible adverse effect of Benzylpenicillin?

**A. Nausea and vomiting**

**B. Urticaria and angio-oedema**

**C. Diarrhea**

**D. Increased appetite**

**Benzylpenicillin is a type of penicillin antibiotic that can, in some cases, lead to hypersensitivity reactions. Urticaria, commonly known as hives, and angio-oedema are both potential manifestations of such allergic responses. Urticaria presents as raised, itchy welts on the skin, while angio-oedema involves swelling of the deeper layers of the skin, often around the eyes and lips, and may also affect the throat. These reactions can be serious and may require immediate medical attention. While nausea and vomiting, diarrhea, and increased appetite can occur with other medications, they are not the typical adverse effects specifically associated with Benzylpenicillin. Nausea and diarrhea may arise from gastrointestinal irritation but are less specific to this antibiotic compared to the allergic manifestations. Increased appetite is not a recognized side effect of Benzylpenicillin. Therefore, urticaria and angio-oedema represent the most significant adverse effects of this antibiotic, highlighting the importance of monitoring for allergic reactions during treatment.**

## 10. What is a contraindication for Glucose Gel?

**A. High blood sugar**

**B. Decreased level of consciousness or altered gag reflex**

**C. Gastrointestinal bleeding**

**D. Severe head trauma**

**In the context of administering glucose gel, a contraindication refers to a situation or condition that makes the treatment inadvisable. One significant contraindication for using glucose gel is a decreased level of consciousness or an altered gag reflex. When a patient presents with either of these conditions, there is an increased risk of aspiration, as the patient may not be able to protect their airway effectively. This makes the administration of any oral medication, including glucose gel, potentially dangerous because the gel could obstruct the airway or be inhaled into the lungs rather than being swallowed properly. While other conditions, such as high blood sugar, gastrointestinal bleeding, or severe head trauma, may warrant caution or a reevaluation of treatment strategies, they do not pose the same immediate and severe risk to patient safety associated with impaired consciousness or gag reflex. Thus, recognizing the importance of maintaining airway protection is critical in emergency care when considering the use of glucose gel.**

# 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://nswambpharmacology.examzify.com**

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