NLN PHARMACOLOGY PRACTICE EXAM (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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

1. Warfarin works by inhibiting which of the following?

A. Inhibition of vitamin K–dependent clotting factors

B. Direct blockade of thrombin

C. Inhibition of factor Xa

D. Inhibition of platelet aggregation via COX-1

2. A nurse should administer theophylline (Slo-Bid) on which basis?

A. On a pm basis

B. On an empty stomach

C. With antacids

D. Every 4 hours

3. A client receiving methylprednisolone sodium succinate (Solu-Medrol) should be instructed to report which adverse effect?

A. Sort throat

B. Fatigue

C. Diarrhea

D. Weight loss

4. Which electrolyte abnormality increases the risk of digoxin toxicity?

A. Hyperkalemia

B. Hyponatremia

C. Hypokalemia

D. Hypercalcemia

5. An intravenous infusion of 1 liter at 60 mL/hour will take which duration to complete?

A. 16 hours 40 minutes

B. 16 hours 0 minutes

C. 17 hours 0 minutes

D. 15 hours 40 minutes

6. A medication is available as a 0.5gm/5mL suspension. How many mL should a nurse administer to provide a 200mg dose?

A. 0.5

B. 2

C. 4

D. 2.5

7. In the context of fetal risk assessment, what is the recommended approach?

A. Use detailed labeling and clinical judgment in conjunction with current guidelines.

B. Rely on old pregnancy category letters only.

C. Assume all medications are unsafe during pregnancy.

D. Only consider maternal outcomes.

8. What is serotonin syndrome and which drug combinations commonly cause it?

A. A mild allergic reaction.

B. Serotonin syndrome is a mood disorder.

C. Potentially life-threatening hyperthermia, agitation, hyperreflexia; due to combinations of SSRIs with MAO inhibitors or SNRIs or tricyclics; discontinue and provide supportive care.

D. A withdrawal syndrome.

9. A physician orders 40 mg of a medication IVPB to be diluted in 100 mL of D5W and administered over 2 hours. If the tubing delivers 60 drops/mL, a nurse should regulate the infusion to run at how many drops/minute?

A. 20

B. 50

C. 100

D. 120

10. A nurse administers an intravenous fluid order for 1,000 mL over 12 hours. If the infusion is continuous, how many milliliters should be left after 7 hours?

A. 417

B. 250

C. 500

D. 583

Answers

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

Explanations

1. Warfarin works by inhibiting which of the following?

A. Inhibition of vitamin K–dependent clotting factors

B. Direct blockade of thrombin

C. Inhibition of factor Xa

D. Inhibition of platelet aggregation via COX-1

Warfarin's action is to reduce the production of vitamin K–dependent clotting factors in the liver by inhibiting vitamin K epoxide reductase. This prevents regeneration of reduced vitamin K, so factors II, VII, IX, and X (and proteins C and S) cannot undergo gamma-carboxylation and become functional. With fewer active factors available, the blood's ability to form clots is diminished, producing anticoagulation. This differs from direct thrombin inhibitors, which block thrombin itself; and from direct Xa inhibitors, which inhibit factor Xa directly. It also isn't an antiplatelet drug that blocks platelet aggregation via COX-1, like aspirin. Warfarin's effect is on the synthesis of clotting factors, not on platelets or on direct enzymatic activity of thrombin or factor Xa.

2. A nurse should administer theophylline (Slo-Bid) on which basis?

A. On a pm basis

B. On an empty stomach

C. With antacids

D. Every 4 hours

The main idea is that theophylline absorption is affected by whether the stomach is empty, and it has a narrow therapeutic window, so predictable absorption is crucial. Taking theophylline on an empty stomach helps ensure more consistent and faster absorption, leading to stable serum levels and reducing the risk of fluctuations that could cause toxicity or subtherapeutic effect. If taken with food or with antacids, absorption can be delayed or altered, making levels harder to predict. The other options don't address this absorption issue or the need for predictable drug levels.

3. A client receiving methylprednisolone sodium succinate (Solu-Medrol) should be instructed to report which adverse effect?

A. Sort throat

B. Fatigue

C. Diarrhea

D. Weight loss

Systemic corticosteroids suppress the immune system, so patients on methylprednisolone should be vigilant for signs of infection. A sore throat is an important early warning sign of possible infection (pharyngitis or other throat/systemic infections) that requires prompt evaluation, because infections can progress more quickly in someone taking steroids and may be masked by the medication. Early reporting allows timely treatment and reduces complications. Other symptoms like fatigue, diarrhea, or weight loss can occur with steroids but are nonspecific and can have many causes; they don't point as clearly to an infectious process needing immediate assessment.

4. Which electrolyte abnormality increases the risk of digoxin toxicity?

A. Hyperkalemia

B. Hyponatremia

C. Hypokalemia

D. Hypercalcemia

Digoxin works by inhibiting the Na+/K+-ATPase pump in heart muscle. Potassium competes with digoxin for the same binding site on this pump. When potassium is low, there's less competition, so more digoxin can bind and inhibit the pump. That stronger inhibition raises intracellular calcium via the Na+/Ca2+ exchanger, which enhances both the drug's effect and the risk of toxic effects such as arrhythmias, nausea, and vision changes. So the electrolyte abnormality that most increases the risk of digoxin toxicity is low potassium. Hyperkalemia, by contrast, reduces digoxin binding to the pump and thus lowers the toxicity risk (though toxicity can still occur if levels are very high). Hyponatremia isn't the primary determinant, and hypercalcemia can contribute to toxicity but isn't the main factor influencing digoxin binding in the same way potassium is.

5. An intravenous infusion of 1 liter at 60 mL/hour will take which duration to complete?

A. 16 hours 40 minutes

B. 16 hours 0 minutes

C. 17 hours 0 minutes

D. 15 hours 40 minutes

The duration of an IV infusion is found by dividing the total volume to be infused by the infusion rate. Here, 1 liter equals 1000 mL, and the rate is 60 mL per hour. So 1000 mL ÷ 60 mL/hour = 16.666... hours. The fractional part converts to minutes: 0.666... hours × 60 minutes/hour ≈ 40 minutes. This makes the total time 16 hours and 40 minutes. Another quick check: a rate of 60 mL/hour equals 1 mL per minute, so 1000 mL at 1 mL/min takes 1000 minutes, which is 16 hours and 40 minutes.

6. A medication is available as a 0.5gm/5mL suspension. How many mL should a nurse administer to provide a 200mg dose?

A. 0.5

B. 2

C. 4

D. 2.5

Start by converting the suspension's strength to an amount per milliliter. 0.5 g equals 500 mg, and that 500 mg is in 5 mL, so the concentration is 500 mg / 5 mL = 100 mg per mL. To deliver a 200 mg dose, calculate the volume needed: 200 mg ÷ 100 mg/mL = 2 mL. Therefore, administering 2 mL provides 200 mg (2 mL × 100 mg/mL = 200 mg). A quick check confirms the calculation and keeps units consistent (mg and mL).

7. In the context of fetal risk assessment, what is the recommended approach?

A. Use detailed labeling and clinical judgment in conjunction with current guidelines.

B. Rely on old pregnancy category letters only.

C. Assume all medications are unsafe during pregnancy.

D. Only consider maternal outcomes.

In fetal risk assessment, use up-to-date drug labeling together with current guidelines and your clinical judgment to balance maternal benefits against fetal risks. The old pregnancy category letters are too simplistic and don't capture the nuance of how risk varies by drug, dose, timing in pregnancy, or the strength of the available evidence. Modern labeling provides specific information on pregnancy exposure, potential fetal risks, data from human and animal studies, and guidance for use in different trimesters plus alternatives and dosing considerations. Clinically, you weigh the mother's medical needs, the severity of the condition being treated, available safer options, and how timing of exposure might affect fetal outcomes, then tailor therapy accordingly. This integrated approach goes beyond labeling alone and avoids assuming all medications are unsafe or only focusing on maternal outcomes, by considering fetal safety as part of a comprehensive risk-benefit decision.

8. What is serotonin syndrome and which drug combinations commonly cause it?

A. A mild allergic reaction.

B. Serotonin syndrome is a mood disorder.

C. Potentially life-threatening hyperthermia, agitation, hyperreflexia; due to combinations of SSRIs with MAO inhibitors or SNRIs or tricyclics; discontinue and provide supportive care.

D. A withdrawal syndrome.

Serotonin syndrome is a potentially life-threatening reaction caused by too much serotonin activity in the brain and body. It usually happens when drugs that raise serotonin levels are combined, such as an SSRI with a monoamine oxidase inhibitor, or when an SSRI is taken along with other serotonergic meds like SNRIs or TCAs. The onset is rapid after starting or changing a medication. The warning signs span three areas: mental status changes (anxiety, agitation, confusion), autonomic symptoms (high heart rate, high blood pressure, fever, sweating), and neuromuscular abnormalities (tremor, hyperreflexia, clonus). Because the risk of serious complications is real, the primary step is to stop the offending drugs and provide supportive care. This can include cooling measures and IV fluids, with benzodiazepines for agitation or tremor. In more severe cases, a serotonin receptor antagonist such as cyproheptadine may be used. This syndrome is distinct from withdrawal and from other conditions like neuroleptic malignant syndrome, and prompt recognition and management are key.

9. A physician orders 40 mg of a medication IVPB to be diluted in 100 mL of D5W and administered over 2 hours. If the tubing delivers 60 drops/mL, a nurse should regulate the infusion to run at how many drops/minute?

A. 20

B. 50

C. 100

D. 120

Infusion rate is determined by how much fluid is delivered per unit time, then converted to drops per minute using the tubing's drop factor. The total volume is 100 mL to be infused over 2 hours, so the flow is 100 mL / 2 h = 50 mL per hour. With a drop factor of 60 drops per mL, the rate becomes 50 mL/hr × 60 drops/mL = 3000 drops per hour. Converting to minutes: 3000 drops/hr ÷ 60 min/hr = 50 drops per minute. The dose amount (40 mg) isn't needed to calculate the infusion rate here. Therefore, set the infusion to 50 drops per minute.

10. A nurse administers an intravenous fluid order for 1,000 mL over 12 hours. If the infusion is continuous, how many milliliters should be left after 7 hours?

A. 417

B. 250

C. 500

D. 583

When an IV fluid is given continuously, the amount infused at any time is proportional to the time that has passed. Here, 1000 mL are to be delivered over 12 hours, so the infusion rate is 1000/12 ≈ 83.3 mL per hour. After 7 hours, the amount infused is (1000/12) × 7 = 7000/12 ≈ 583.3 mL. The remaining volume is the total minus what's already infused: 1000 − 583.3 ≈ 416.7 mL. Rounding to the nearest milliliter gives about 417 mL left.

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://nlnpharmacology.examzify.com

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