# Dosage Calculation RN Fundamentals Assessment 3.0 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. Don't worry about getting everything right, 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, and take breaks to retain information better.**

### 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.**

### 7. Use Other Tools

**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. If a health professional must calculate the infusion rate of 500 mL in 4 hours, what is the rate in mL/hour?**

**A. 100 mL/hour**

**B. 125 mL/hour**

**C. 150 mL/hour**

**D. 175 mL/hour**

**2. To prepare a 3% solution, how many grams of solute are needed in 100 mL of solution?**

**A. 1 gram**

**B. 3 grams**

**C. 5 grams**

**D. 10 grams**

**3. The prescribed dose of ibuprofen is 600 mg. If it comes in 200 mg tablets, how many tablets should a nurse give?**

**A. 1 tablet**

**B. 2 tablets**

**C. 3 tablets**

**D. 4 tablets**

**4. The doctor prescribes ceftizoxime 1 g IVPB every 12 hours. If it must be infused over 30 minutes, what is the calculated mL/hr rate if it is in 50 mL NS?**

**A. 40 mL/hr**

**B. 100 mL/hr**

**C. 25 mL/hr**

**D. 30 mL/hr**

**5. An order is for 500 mL of saline to infuse over 4 hours. What is the infusion rate in mL/hour?**

**A. 100 mL/hour**

**B. 125 mL/hour**

**C. 150 mL/hour**

**D. 200 mL/hour**

**6. For a patient requiring 50 mg of prednisone, with availability of 20 mg tablets, how many tablets should the nurse administer?**

**A. 2 tablets**

**B. 2.5 tablets**

**C. 3 tablets**

**D. 4 tablets**

**7. What would be the dosage in milligrams for a prescribed medication of 2 grams?**

**A. 500 mg**

**B. 2000 mg**

**C. 1500 mg**

**D. 2500 mg**

**8. A physician orders 800 mg of a medication. If you only have 200 mg capsules, how many capsules should you give?**

**A. 2 capsules**

**B. 3 capsules**

**C. 4 capsules**

**D. 5 capsules**

**9. For mL/hr calculations, to what decimal place must the answers be rounded?**

**A. Whole number**

**B. Tenth**

**C. Hundredth**

**D. Thousandth**

**10. If a patient is prescribed 1.5 grams of a medication and the available concentration is 500 mg, how many tablets should be administered?**

**A. 1 tablet**

**B. 2 tablets**

**C. 3 tablets**

**D. 4 tablets**

# Answers

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

# Explanations

## 1. If a health professional must calculate the infusion rate of 500 mL in 4 hours, what is the rate in mL/hour?

**A. 100 mL/hour**

**B. 125 mL/hour**

**C. 150 mL/hour**

**D. 175 mL/hour**

**To determine the infusion rate in mL/hour for a volume of 500 mL to be administered over a duration of 4 hours, you need to use the formula for calculating the flow rate: Infusion Rate (mL/hour) = Total Volume (mL) ÷ Total Time (hours) In this case, the total volume is 500 mL and the total time is 4 hours. Plugging the values into the formula gives: Infusion Rate = 500 mL ÷ 4 hours = 125 mL/hour. This means the correct infusion rate is 125 mL/hour, which directly corresponds to the answer provided. Understanding how to apply the formula is crucial for calculating infusion rates accurately, ensuring proper medication administration and patient safety.**

## 2. To prepare a 3% solution, how many grams of solute are needed in 100 mL of solution?

**A. 1 gram**

**B. 3 grams**

**C. 5 grams**

**D. 10 grams**

**To determine how many grams of solute are needed to prepare a 3% solution in 100 mL of solution, it is essential to understand what a 3% solution means. A 3% solution indicates that there are 3 grams of solute for every 100 mL of solution. In this situation, since the question specifies a volume of 100 mL, we can directly apply this definition. For a 3% solution, the calculation is straightforward: 3 grams of the solute must be dissolved in enough solvent (usually water) to make the total volume reach 100 mL. Thus, selecting the correct answer of 3 grams aligns perfectly with the definition of what a 3% solution entails. Therefore, you need 3 grams of the solute to make a total volume of 100 mL of a 3% solution.**

## 3. The prescribed dose of ibuprofen is 600 mg. If it comes in 200 mg tablets, how many tablets should a nurse give?

**A. 1 tablet**

**B. 2 tablets**

**C. 3 tablets**

**D. 4 tablets**

**To determine the correct number of ibuprofen tablets to administer, it's important to calculate how many 200 mg tablets are needed to reach the prescribed dose of 600 mg. The prescribed dose is 600 mg, and each tablet contains 200 mg. To find out how many tablets are needed, you can use the following calculation: 600 mg (prescribed dose) divided by 200 mg (dose per tablet) equals the number of tablets required. When you perform the calculation: 600 mg ÷ 200 mg = 3 tablets. Therefore, the nurse should give 3 tablets to achieve the prescribed dose of 600 mg. This ensures that the patient receives the appropriate amount of medication based on the dosage prescribed by the healthcare provider.**

**4. The doctor prescribes ceftizoxime 1 g IVPB every 12 hours. If it must be infused over 30 minutes, what is the calculated mL/hr rate if it is in 50 mL NS?**

**A. 40 mL/hr**

**B. 100 mL/hr**

**C. 25 mL/hr**

**D. 30 mL/hr**

**To determine the correct infusion rate, we first need to calculate how many mL need to be infused per hour given that the total volume is 50 mL and the total infusion time is 30 minutes. Since the medication is prescribed to be infused over 30 minutes, we can convert that time into hours to make the calculation easier. Fifty mL needs to be infused in half an hour (0.5 hours). Next, we need to find the rate of infusion in mL per hour. The calculation is straightforward: 1. The total volume of the solution is 50 mL. 2. The infusion time is 0.5 hours. To find the rate per hour, we need to divide the total volume by the infusion time in hours: Infusion Rate (mL/hr) = Total Volume (mL) / Infusion Time (hr) Infusion Rate (mL/hr) = 50 mL / 0.5 hr Infusion Rate (mL/hr) = 100 mL/hr However, the infusion occurs over a shorter time frame than a full hour, specifically over 30 minutes. This means that while the calculated infusion rate is 100 mL/hr for the entirety of**

**5. An order is for 500 mL of saline to infuse over 4 hours. What is the infusion rate in mL/hour?**

**A. 100 mL/hour**

**B. 125 mL/hour**

**C. 150 mL/hour**

**D. 200 mL/hour**

**To determine the infusion rate in mL/hour for an order of 500 mL of saline to be infused over 4 hours, divide the total volume of saline by the total time in hours. The calculation is as follows: 1. Total volume to infuse: 500 mL 2. Total time for the infusion: 4 hours Infusion rate (mL/hour) = Total volume (mL) / Total time (hours) Infusion rate (mL/hour) = 500 mL / 4 hours Infusion rate (mL/hour) = 125 mL/hour This indicates that the infusion should occur at a rate of 125 mL each hour to complete the total volume of 500 mL within the designated time of 4 hours. This calculation is critical in clinical settings to ensure that fluid administration is done at a safe and effective rate, preventing complications associated with too rapid or too slow of an infusion.**

## 6. For a patient requiring 50 mg of prednisone, with availability of 20 mg tablets, how many tablets should the nurse administer?

**A. 2 tablets**

**B. 2.5 tablets**

**C. 3 tablets**

**D. 4 tablets**

**To determine the correct number of tablets to administer for a prescribed dose of prednisone, you need to divide the total prescribed dose by the strength of each tablet. In this scenario, the patient requires 50 mg of prednisone, and each tablet contains 20 mg. The calculation involves dividing 50 mg by 20 mg per tablet: \[ \text{Tablets required} = \frac{\text{Total prescribed dose}}{\text{Tablet strength}} = \frac{50 \text{ mg}}{20 \text{ mg/tablet}} = 2.5 \text{ tablets} \] This means that to achieve the required dose of 50 mg, the nurse should administer 2.5 tablets. In clinical practice, this often means the nurse might provide 2 tablets and supplement with a half tablet, depending on the facility's protocols. This approach effectively delivers the correct total dosage needed for the patient.**

## 7. What would be the dosage in milligrams for a prescribed medication of 2 grams?

**A. 500 mg**

**B. 2000 mg**

**C. 1500 mg**

**D. 2500 mg**

**When converting grams to milligrams, it's essential to remember the conversion factor: 1 gram is equivalent to 1000 milligrams. Therefore, to convert 2 grams into milligrams, you multiply the number of grams by 1000. In this case, multiplying 2 (grams) by 1000 gives you 2000 milligrams. This calculation is straightforward: 2 grams × 1000 mg/gram = 2000 mg. This means the correct dosage of the prescribed medication is 2000 mg, confirming that the answer is accurate. Understanding this conversion is crucial in nursing and medication administration to ensure patients receive the correct dosage.**

## 8. A physician orders 800 mg of a medication. If you only have 200 mg capsules, how many capsules should you give?

**A. 2 capsules**

**B. 3 capsules**

**C. 4 capsules**

**D. 5 capsules**

**To determine how many capsules to administer when the prescribed dosage is 800 mg and each capsule contains 200 mg, the calculation involves dividing the total needed dosage by the amount in each capsule. Specifically: 800 mg (prescribed dose) ÷ 200 mg (dose per capsule) = 4 capsules. Thus, you would need to give 4 capsules to meet the 800 mg order. This shows the importance of understanding how to perform division in dosage calculations for accurate medication administration, ensuring that patients receive the correct doses for effective treatment.**

## 9. For mL/hr calculations, to what decimal place must the answers be rounded?

**A. Whole number**

**B. Tenth**

**C. Hundredth**

**D. Thousandth**

**For mL/hr calculations, rounding to the nearest tenth is standard practice in nursing and medication administration. This level of precision ensures that the amounts being administered are safe and effective while also conforming to typical rounding rules in clinical settings. When calculating the flow rate in mL/hr, a tenth of a milliliter provides an appropriate balance between accuracy and practicability. Most infusion pumps and IV equipment are calibrated to deliver fluid volumes to the nearest tenth, making this level of rounding suitable for ensuring the correct dosage is given over time. In contrast, rounding to whole numbers could lead to significant medication errors, especially when dosing in smaller amounts or when precise administration is crucial. Rounding to the hundredth or thousandth could be excessive for practical clinical applications and could complicate the administration process, leading to potential delays or complications without improving safety. Therefore, rounding to the nearest tenth aligns with clinical protocols and promotes safe medication administration practices.**

## 10. If a patient is prescribed 1.5 grams of a medication and the available concentration is 500 mg, how many tablets should be administered?

**A. 1 tablet**

**B. 2 tablets**

**C. 3 tablets**

**D. 4 tablets**

**To determine the correct number of tablets to administer, the key is to convert the patient's prescribed dosage from grams to milligrams, as the available concentration is given in milligrams. 1.5 grams is equivalent to 1500 mg (since 1 gram = 1000 mg). Therefore, the patient needs a total of 1500 mg of the medication. Next, knowing that each tablet contains 500 mg, you divide the total required dosage by the amount in each tablet: 1500 mg (required) ÷ 500 mg (per tablet) = 3 tablets. This calculation shows that the patient should receive 3 tablets to meet the prescribed dosage of 1.5 grams. Hence, the correct answer is 3 tablets, which aligns with the provided choice that was selected. Understanding the conversion between grams and milligrams, along with the division based on tablet concentration, is crucial in dosage calculations.**

# 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://dosagecalcrnfundassmt3.examzify.com**

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