

HESI Dosage Calculations Practice Exam (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. 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 should clients report to their healthcare provider when taking ticlopidine hydrochloride?**
 - A. Changes in appetite**
 - B. Persistent headache**
 - C. Any signs of unusual bleeding or bruising**
 - D. Fever over 100°F**

- 2. What should a nurse instruct a client taking allopurinol (Zyloprim)?**
 - A. Instruct the client to drink 3000 mL of fluid per day.**
 - B. Instruct the client to take the medication on an empty stomach.**
 - C. Inform the client that the effect of the medication will occur immediately.**
 - D. Instruct the client that if swelling of the lips occurs, this is a normal expected response.**

- 3. How many ml/hour should the nurse set the infusion pump for a client receiving oxytocin (Pitocin) 0.5 milliunits/minute with a 1,000 ml solution containing 10 units?**
 - A. 2 ml/hour**
 - B. 3 ml/hour**
 - C. 4 ml/hour**
 - D. 5 ml/hour**

- 4. A nurse learns that a client is taking garlic as an herbal supplement. This client is most likely treating which condition?**
 - A. Eczema**
 - B. Insomnia**
 - C. Migraines**
 - D. Hyperlipidemia**

5. When taking Humulin NPH insulin, the time frame during which a client is most likely to experience hypoglycemia is?
- A. 2 to 4 hours after administration
 - B. 4 to 12 hours after administration
 - C. 16 to 18 hours after administration
 - D. 18 to 24 hours after administration
6. What does the absence of deep tendon reflexes in a pregnant client receiving magnesium sulfate indicate?
- A. The magnesium sulfate is effective.
 - B. The infusion rate needs to be increased.
 - C. The client is experiencing cerebral edema.
 - D. The client is experiencing magnesium toxicity.
7. Prior to initiating streptokinase therapy for a client with pulmonary embolism, which crucial finding should be reported?
- A. Adventitious breath sounds
 - B. Temperature of 99.4° F orally
 - C. Blood pressure of 198/110 mm Hg
 - D. Respiratory rate of 28 breaths/min
8. A nurse is reinforcing discharge instructions to a client receiving baclofen (Lioresal). Which of the following would the nurse include in the instructions?
- A. Restrict fluid intake
 - B. Avoid the use of alcohol
 - C. Stop the medication if diarrhea occurs
 - D. Notify the health care provider if fatigue occurs
9. A client undergoing treatment for rheumatoid arthritis is administered etanercept (Enbrel). What should the nurse prioritize assessing?
- A. The injection site for itching and edema
 - B. The white blood cell counts and platelet counts
 - C. Whether the client is experiencing fatigue and joint pain
 - D. A metallic taste in the mouth and a loss of appetite

10. When a client is on warfarin, which statement indicates the need for further teaching?

- A. "I understand the importance of consistent vitamin K intake."**
- B. "I need to avoid alcoholic beverages."**
- C. "I can take common over-the-counter medications without concern."**
- D. "I will get a routine blood test to monitor INR."**

Answers

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

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Explanations

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1. What should clients report to their healthcare provider when taking ticlopidine hydrochloride?

- A. Changes in appetite**
- B. Persistent headache**
- C. Any signs of unusual bleeding or bruising**
- D. Fever over 100°F**

Ticlopidine hydrochloride is an antiplatelet medication used to reduce the risk of thrombotic strokes and to prevent clot formation. A critical aspect of its use is the increased risk of bleeding because it affects the normal clotting function of platelets. Clients should be vigilant for any unusual signs of bleeding or bruising, such as easy bruising, prolonged bleeding from cuts, blood in urine or stools, or bleeding gums. Reporting these symptoms is essential as they may indicate adverse effects that need medical attention. Monitoring for unusual bleeding or bruising is crucial for safety since these symptoms can signal serious complications related to the medication's antiplatelet effects. Addressing these concerning signs promptly can help prevent serious health issues related to excessive bleeding. The other options are important health concerns, but they do not carry the same immediate risk associated with ticlopidine hydrochloride as unusual bleeding or bruising does.

2. What should a nurse instruct a client taking allopurinol (Zyloprim)?

- A. Instruct the client to drink 3000 mL of fluid per day.**
- B. Instruct the client to take the medication on an empty stomach.**
- C. Inform the client that the effect of the medication will occur immediately.**
- D. Instruct the client that if swelling of the lips occurs, this is a normal expected response.**

The appropriate instruction for a client taking allopurinol is to encourage them to drink 3000 mL of fluid per day. This recommendation is based on the medication's purpose and its effects on the body. Allopurinol is used primarily to lower uric acid levels in the blood, which is crucial for managing conditions like gout and certain types of kidney stones. Increasing fluid intake helps dilute the uric acid in the urine and promotes its excretion, ultimately reducing the risk of kidney stones and ensuring more effective medication action. Inadequate fluid intake can concentrate uric acid in the system and may lead to complications. Therefore, a high fluid intake is essential in conjunction with this medication to help prevent any adverse effects on the kidneys and maintain good hydration. Other instructions related to allopurinol, such as taking it on an empty stomach, would be insignificant compared to the importance of hydration. The medication does not provide immediate effects, as it works gradually to decrease uric acid levels over time. Additionally, swelling of the lips is not a normal response; it could indicate an allergic reaction, which would require immediate medical attention.

3. How many ml/hour should the nurse set the infusion pump for a client receiving oxytocin (Pitocin) 0.5 milliunits/minute with a 1,000 ml solution containing 10 units?

A. 2 ml/hour

B. 3 ml/hour

C. 4 ml/hour

D. 5 ml/hour

To determine the correct infusion rate in ml/hour, it's essential first to understand the concentration of the oxytocin solution and the prescribed dosage. The solution contains 10 units of oxytocin in a total volume of 1,000 ml. 1. ****Calculate the concentration of oxytocin in the solution****: The concentration is given as 10 units in 1,000 ml, which translates to 0.01 units/ml (10 units / 1,000 ml). 2. ****Convert the prescribed dose from milliunits to units****: The order is for 0.5 milliunits/minute. Knowing that 1 unit equals 1,000 milliunits, you can convert this dosage as follows: - 0.5 milliunits = 0.0005 units (by dividing by 1,000). 3. ****Determine the infusion rate in ml/minute****: Using the concentration, you can find out how many ml are needed to deliver 0.0005 units. - To find out how many ml deliver the desired dose, use the formula: - Desired dose (in units) / Concentration (in units/ml) = Volume (ml). - Thus,

4. A nurse learns that a client is taking garlic as an herbal supplement. This client is most likely treating which condition?

A. Eczema

B. Insomnia

C. Migraines

D. Hyperlipidemia

Garlic is commonly recognized for its potential health benefits, particularly in managing hyperlipidemia, which is characterized by high levels of lipids (fats) in the blood, including cholesterol and triglycerides. Research suggests that garlic may help lower total cholesterol and LDL ("bad" cholesterol) levels, making it a popular natural remedy for individuals seeking to manage their lipid profiles and improve heart health. While eczema, insomnia, and migraines may have various treatments and herbal supplements associated with them, garlic is not primarily known for efficacy in those areas. Thus, a client taking garlic as an herbal supplement is most likely using it to address hyperlipidemia. The evidence supporting garlic's role in lipid management highlights its beneficial properties in cardiovascular health, reinforcing why this is the most accurate choice.

5. When taking Humulin NPH insulin, the time frame during which a client is most likely to experience hypoglycemia is?
- A. 2 to 4 hours after administration
 - B. 4 to 12 hours after administration**
 - C. 16 to 18 hours after administration
 - D. 18 to 24 hours after administration

Humulin NPH insulin is an intermediate-acting insulin that typically begins to lower blood glucose levels about 1 to 3 hours after administration, and its peak effect generally occurs between 4 to 12 hours. The risk of hypoglycemia, which is a dangerously low blood sugar level, is most significant as the insulin reaches its peak action. In the case of Humulin NPH, the time frame of 4 to 12 hours after administration aligns perfectly with the period when the client is most likely to encounter symptoms of hypoglycemia. This understanding is crucial for anyone managing their insulin therapy, as they need to monitor their blood sugar closely during this peak period, particularly if they are experiencing symptoms such as shaking, sweating, or confusion. Recognizing this peak timing helps clients and healthcare providers implement effective strategies for preventing hypoglycemia, such as planning meals and snacks accordingly.

6. What does the absence of deep tendon reflexes in a pregnant client receiving magnesium sulfate indicate?
- A. The magnesium sulfate is effective.
 - B. The infusion rate needs to be increased.
 - C. The client is experiencing cerebral edema.
 - D. The client is experiencing magnesium toxicity.**

The absence of deep tendon reflexes in a pregnant client receiving magnesium sulfate is a significant clinical finding that indicates the potential development of magnesium toxicity. Normally, deep tendon reflexes are present and are used as a key assessment tool to monitor the effects of magnesium sulfate, particularly when it's being administered to manage conditions such as preeclampsia or eclampsia. When magnesium sulfate levels become excessively high—indicating toxicity—neuromuscular function is compromised, leading to a reduction or absence of these reflexes. Thus, the absence of deep tendon reflexes serves as an important warning sign that further monitoring and intervention are needed. Recognizing magnesium toxicity is vital because it can lead to serious complications, including respiratory depression or cardiac arrest if not addressed promptly. Therefore, the assessment of deep tendon reflexes is a critical part of monitoring clients on magnesium sulfate, and the absence of these reflexes would indicate the need for immediate evaluation of magnesium levels and potential adjustments to treatment.

7. Prior to initiating streptokinase therapy for a client with pulmonary embolism, which crucial finding should be reported?

- A. Adventitious breath sounds**
- B. Temperature of 99.4° F orally**
- C. Blood pressure of 198/110 mm Hg**
- D. Respiratory rate of 28 breaths/min**

In the context of initiating streptokinase therapy for a patient with a pulmonary embolism, it is pivotal to monitor the patient's blood pressure closely. A blood pressure reading of 198/110 mm Hg indicates significant hypertension, which is critical to report prior to starting thrombolytic therapy. Streptokinase is a thrombolytic medication that can lead to serious complications, including bleeding, especially if the patient has uncontrolled hypertension. Elevated blood pressure may increase the risk of hemorrhagic events when thrombolytics are used, as these medications work by breaking down blood clots, which can exacerbate bleeding in areas where blood vessels may already be under pressure due to existing high blood pressure. While other findings like adventitious breath sounds, a mild fever, or an elevated respiratory rate can also be significant, they do not present the same immediate risks associated with the initiation of streptokinase therapy as uncontrolled hypertension does. Therefore, the blood pressure reading must be reported and addressed to ensure the safety of the patient before proceeding with treatment.

8. A nurse is reinforcing discharge instructions to a client receiving baclofen (Lioresal). Which of the following would the nurse include in the instructions?

- A. Restrict fluid intake**
- B. Avoid the use of alcohol**
- C. Stop the medication if diarrhea occurs**
- D. Notify the health care provider if fatigue occurs**

Baclofen is a muscle relaxant and can cause central nervous system side effects, including sedation and decreased coordination. The use of alcohol can intensify these effects, leading to increased drowsiness, dizziness, and a higher risk of overdose. Therefore, it is essential for clients taking baclofen to avoid alcohol consumption to ensure their safety and enhance the medication's effectiveness. Understanding this interaction helps reinforce the importance of safe medication practices. Although managing fluid intake and recognizing other side effects like diarrhea is important, those aspects do not carry the same level of risk of immediate harm as combining baclofen with alcohol. Additionally, while fatigue can be a side effect of baclofen, it is a common occurrence with many medications and does not necessitate an immediate notification unless it becomes severe or persistent. Thus, avoiding alcohol is a critical instruction to maintain safety while on baclofen.

9. A client undergoing treatment for rheumatoid arthritis is administered etanercept (Enbrel). What should the nurse prioritize assessing?

- A. The injection site for itching and edema**
- B. The white blood cell counts and platelet counts**
- C. Whether the client is experiencing fatigue and joint pain**
- D. A metallic taste in the mouth and a loss of appetite**

When a client is being treated with etanercept (Enbrel), which is a biologic response modifier used primarily for autoimmune conditions like rheumatoid arthritis, prioritizing the assessment of white blood cell counts and platelet counts is crucial. Etanercept functions by inhibiting tumor necrosis factor (TNF), which helps reduce inflammation but can also impact the immune system and bone marrow function. Monitoring white blood cell counts is particularly important due to the risk of immunosuppression associated with TNF inhibitors. These medications can increase the client's susceptibility to infections because they diminish the body's inflammatory response. Additionally, assessing platelet counts is important due to the potential for developing thrombocytopenia, a condition where the number of platelets is abnormally low, which can affect bleeding and clotting. While assessing the injection site for itching and edema, monitoring fatigue and joint pain, and identifying symptoms like a metallic taste in the mouth or anorexia are certainly relevant, they are secondary to the more critical need for monitoring the hematologic parameters in this context. The risk of significant changes in the immune response and blood cell production necessitates prioritizing laboratory values related to white blood cell and platelet counts to ensure the client's safety and to manage any complications proactively.

10. When a client is on warfarin, which statement indicates the need for further teaching?

- A. "I understand the importance of consistent vitamin K intake."**
- B. "I need to avoid alcoholic beverages."**
- C. "I can take common over-the-counter medications without concern."**
- D. "I will get a routine blood test to monitor INR."**

When a client is on warfarin, the statement indicating the need for further teaching is one that underestimates the complexities and potential interactions associated with over-the-counter medications. Warfarin is an anticoagulant that requires careful management due to its interactions with a wide variety of substances, including certain over-the-counter drugs such as nonsteroidal anti-inflammatory drugs (NSAIDs), some herbal supplements, and even vitamins. These interactions can either enhance the effects of warfarin, increasing the risk of bleeding, or reduce its effectiveness, increasing the risk of thrombosis. Therefore, the correct statement highlights the importance of consulting with a healthcare provider before taking any over-the-counter medications. Understanding that these medications may affect INR levels or interact negatively with warfarin is crucial in ensuring safe and effective treatment. The other statements reflect appropriate knowledge regarding warfarin therapy, emphasizing consistent vitamin K intake, the need to avoid alcohol, and the importance of routine INR monitoring to assess warfarin's effectiveness and adjust dosages as necessary.

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://hesidosagecalculations.examzify.com>

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