NBME SURGERY SHELF PRACTICE TEST (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.

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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!

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Questions

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1. What is the best initial treatment for symptomatic hypocalcemia?

A. Oral calcium carbonate

B. IV calcium gluconate

C. Calcitonin

D. Phosphate binders

2. An ASX 72-year-old patient with decreased renal function 3 days after a second renal transplant from a 65-year-old donor. The most likely explanation for the decline in function is what?

A. Hyperacute rejection due to preformed antibodies

B. Chronic rejection due to alloantibody deposition

C. Recurrent nephritis

D. Acute rejection due to failure to suppress class II antigen recognition

3. Which sign is characteristic of purulent flexor tenosynovitis (Kanavel signs)?

A. Fusiform swelling of the finger

B. Fever

C. Numbness

D. Bruising

4. Beck's triad in tamponade can be supported by which bedside imaging modality?

A. CT Scan

B. FAST scan

C. Echocardiography

D. Nuclear medicine scan

5. In central cord syndrome, which motor tracts are relatively spared?

A. Lateral corticospinal tracts to the legs

B. Spinothalamic tracts

C. Dorsal columns

D. Corticobulbar tracts

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6. What is a primary goal of preoperative coronary evaluation after a recent myocardial infarction?

A. To determine whether revascularization is indicated before surgery

B. To guarantee perfect perioperative outcomes

C. To eliminate all cardiac risk

D. To determine anesthesia type

7. In the ATLS framework, what is the first priority in management?

A. Secure airway with cervical spine protection

B. Control external bleeding

C. Obtain IV access

D. Assess circulation with vital signs

8. In a patient with suspected upper GI bleed who has been stabilized after resuscitation, what is the next step to evaluate the bleed?

A. Begin immediate exploratory laparotomy

B. Perform nasogastric tube aspiration to test for upper GI bleed

C. Obtain CT angiography of the abdomen

D. Start broad-spectrum antibiotics

9. What is the most sensitive screening test for hyperaldosteronism?

A. Aldosterone-to-renin ratio

B. Serum aldosterone level

C. Plasma renin activity

D. 24-hour urinary aldosterone

10. The decision to use water-soluble enema or stenting as a bridge to definitive surgery depends on which factors?

A. Location of obstruction and patient condition

B. Time since obstruction

C. Patient age

D. Extent of metastasis

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Answers

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

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Explanations

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1. What is the best initial treatment for symptomatic hypocalcemia?

A. Oral calcium carbonate

B. IV calcium gluconate

C. Calcitonin

D. Phosphate binders

When calcium is acutely low and the patient is symptomatic, the priority is to rapidly restore serum calcium to stop neuromuscular irritability and prevent complications like tetany or seizures. Intravenous calcium is needed because it raises calcium levels quickly and predictably. Calcium gluconate given IV provides a fast rise in ionized calcium and allows careful monitoring of the patient's ECG and symptoms as you titrate the dose. Oral calcium compounds, such as calcium carbonate, take time to absorb and cannot correct an acute, symptomatic deficit promptly. Calcitonin lowers calcium levels, not raises them, so it isn't helpful here. Phosphate binders address phosphate management and do not acutely raise calcium to treat symptoms. So, the best initial treatment for symptomatic hypocalcemia is intravenous calcium gluconate to achieve a rapid and controlled increase in calcium.

2. An ASX 72-year-old patient with decreased renal function 3 days after a second renal transplant from a 65-year-old donor. The most likely explanation for the decline in function is what?

A. Hyperacute rejection due to preformed antibodies

B. Chronic rejection due to alloantibody deposition

C. Recurrent nephritis

D. Acute rejection due to failure to suppress class II antigen recognition

Acute rejection in the early posttransplant period is a cell mediated process where the recipient's T cells recognize donor MHC antigens, especially MHC class II, presented by donor or host antigen presenting cells. If immunosuppressive therapy fails to adequately suppress this T cell activation, CD4+ T cells drive an immune attack on the graft, leading to impaired renal function within days. Hyperacute rejection would occur much sooner due to preformed antibodies acting on donor antigens; chronic rejection develops months to years later with vascular changes and alloantibody deposition; recurrent nephritis would reflect disease of the native kidney rather than the transplanted organ. The scenario fits acute cellular rejection driven by inadequate suppression of class II antigen–specific T cell responses.

3. Which sign is characteristic of purulent flexor tenosynovitis (Kanavel signs)?

A. Fusiform swelling of the finger

B. Fever

C. Numbness

D. Bruising

The key sign being tested is fusiform swelling of the finger—the classic "sausage finger" appearance seen in purulent flexor tenosynovitis. This circumferential swelling results from infection and inflammation of the flexor tendon sheath, making the finger appear uniformly swollen along its length. In Kanavel signs, this fusiform swelling is the hallmark, while other findings like fever can occur with infection in general but are not specific to this condition, numbness isn't characteristic, and bruising is not typical of tendon sheath infection. Prompt recognition is important because these infections can rapidly progress and require urgent surgical drainage along with antibiotics.

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4. Beck's triad in tamponade can be supported by which bedside imaging modality?

A. CT Scan

B. FAST scan

C. Echocardiography

D. Nuclear medicine scan

Beck's triad suggests tamponade from a pericardial effusion, so rapid confirmation at the bedside is essential. The focused ultrasound FAST exam is designed for quick, bedside assessment and can detect pericardial effusion and signs of tamponade physiology in minutes. This makes it the most practical choice in acutely unstable patients when imaging is needed immediately. While echocardiography is highly accurate for tamponade, FAST is the standard bedside tool used in emergent settings to confirm effusion quickly and guide urgent management. CT is not suitable for unstable patients due to transport delays, and nuclear medicine has no role in this acute scenario.

5. In central cord syndrome, which motor tracts are relatively spared?

A. Lateral corticospinal tracts to the legs

B. Spinothalamic tracts

C. Dorsal columns

D. Corticobulbar tracts

Central cord syndrome arises from injury to the cervical spinal cord that hits the central fibers first. This pattern damages the fibers controlling the upper limbs more than those for the legs because of how the corticospinal tract is organized in the cord; the leg-related corticospinal fibers lie in a part of the tract that is less vulnerable to a medial (central) lesion. As a result, the motor tracts to the legs are relatively spared, while arm weakness is more pronounced. So the leg portions of the lateral corticospinal tract are the ones that remain relatively intact.

6. What is a primary goal of preoperative coronary evaluation after a recent myocardial infarction?

A. To determine whether revascularization is indicated before surgery

B. To guarantee perfect perioperative outcomes

C. To eliminate all cardiac risk

D. To determine anesthesia type

The key idea is assessing whether fixing the narrowed coronary arteries before noncardiac surgery will reduce the risk of perioperative heart problems. After a recent myocardial infarction, the heart is vulnerable to ischemia during the stress of surgery, so preoperative coronary evaluation aims to decide if revascularization—such as PCI or CABG—before the planned operation is indicated. If testing shows significant inducible ischemia or high-risk coronary anatomy, performing revascularization can lower the chance of perioperative myocardial infarction or death. If there's no clear benefit from revascularization, proceed with the planned surgery under optimized medical management and careful monitoring. This goal is different from hoping to guarantee perfect outcomes, eliminate all cardiac risk, or choose an anesthesia plan; those are not the primary purposes of the preoperative coronary assessment.

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7. In the ATLS framework, what is the first priority in management?

A. Secure airway with cervical spine protection

B. Control external bleeding

C. Obtain IV access

D. Assess circulation with vital signs

In ATLS, the first priority is securing a patent airway with protection of the cervical spine. This is chosen first because oxygenation is essential for survival and hypoxia can quickly lead to irreversible brain injury or worsen other injuries. In the trauma primary survey (ABCD), you open and protect the airway, ensuring it remains clear and ventilated, often with inline stabilization of the neck. If needed, you move promptly to definitive airway management (endotracheal intubation with cervical spine protection) and be ready to perform a surgical airway if obstruction prevents ventilation. Only after the airway is secured do you proceed to breathing, circulation, disability, and exposure, while other life-saving steps like controlling bleeding or gaining IV access are integrated into the overall priorities but do not precede airway management.

8. In a patient with suspected upper GI bleed who has been stabilized after resuscitation, what is the next step to evaluate the bleed?

A. Begin immediate exploratory laparotomy

B. Perform nasogastric tube aspiration to test for upper GI bleed

C. Obtain CT angiography of the abdomen

D. Start broad-spectrum antibiotics

Placing an upper GI bleed is checked first by obtaining direct evidence from the stomach. After stabilization, the next step is to pass an nasogastric tube and aspirate gastric contents to look for blood or coffee-ground material. Seeing blood confirms an upper GI source and helps guide the plan—typically prompting urgent endoscopy for localization and possible therapeutic intervention. If the aspirate is clear, the bleeding source may be distal or intermittent, but this test still helps differentiate upper GI bleed from other sources and informs subsequent evaluation. Other options aren't the next move in a stable patient with suspected upper GI bleed: exploratory surgery is overly invasive before confirming the source, CT angiography is reserved for specific scenarios such as ongoing or obscure bleeding when endoscopy isn't definitive, and antibiotics don't address the bleed itself.

9. What is the most sensitive screening test for hyperaldosteronism?

A. Aldosterone-to-renin ratio

B. Serum aldosterone level

C. Plasma renin activity

D. 24-hour urinary aldosterone

The key idea is that screening for primary hyperaldosteronism relies on detecting the imbalance between aldosterone production and renin activity. In this condition, aldosterone secretion is inappropriately high while renin is suppressed, so the ratio of aldosterone to renin becomes markedly elevated. Measuring the ratio of aldosterone to renin is therefore the most sensitive way to pick up autonomous aldosterone production, even when the absolute level of aldosterone might not be dramatically high. Relying on aldosterone level alone can miss cases because aldosterone can be within the upper end of normal in early disease or after recent dietary or hemodynamic changes. Measuring renin alone also falls short because renin can be suppressed by many non-pathologic factors (volume status, medications) and doesn't by itself indicate whether aldosterone secretion is inappropriately active. A 24-hour urinary aldosterone test suffers from day-to-day variability and practical limitations for screening, making it less reliable as a first-pass test. Thus, using the aldosterone-to-renin ratio integrates information from both hormones to best detect the abnormal regulation characteristic of hyperaldosteronism, with confirmatory testing pursued if the ratio is elevated.

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10. The decision to use water-soluble enema or stenting as a bridge to definitive surgery depends on which factors?

A. Location of obstruction and patient condition

B. Time since obstruction

C. Patient age

D. Extent of metastasis

The idea behind bridging to definitive surgery is to relieve the obstruction safely before a planned operation, so where the blockage is and how well the patient can tolerate procedures largely decide which decompression method to use. The location of the obstruction matters because certain segments of the colon are easier to access and stent endoscopically; left-sided or distal lesions are generally more amenable to colonic stenting, while more proximal or technically challenging obstructions may not be suitable for a stent and might be managed with a decompression approach such as a water-soluble enema. The patient's condition matters because endoscopic or radiologic decompression carries procedural risks and requires the patient to be reasonably stable, without signs of perforation or generalized peritonitis, and with enough physiological reserve to undergo a procedure. If someone is unstable or has concerning signs that mandate urgent surgery, bridging procedures may not be appropriate regardless of location. Age and extent of metastasis affect overall prognosis but do not directly determine the immediate choice of bridging technique. Time since obstruction can influence urgency, but the primary determinants are where the obstruction is and how well the patient can tolerate the decompression approach.

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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:

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

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