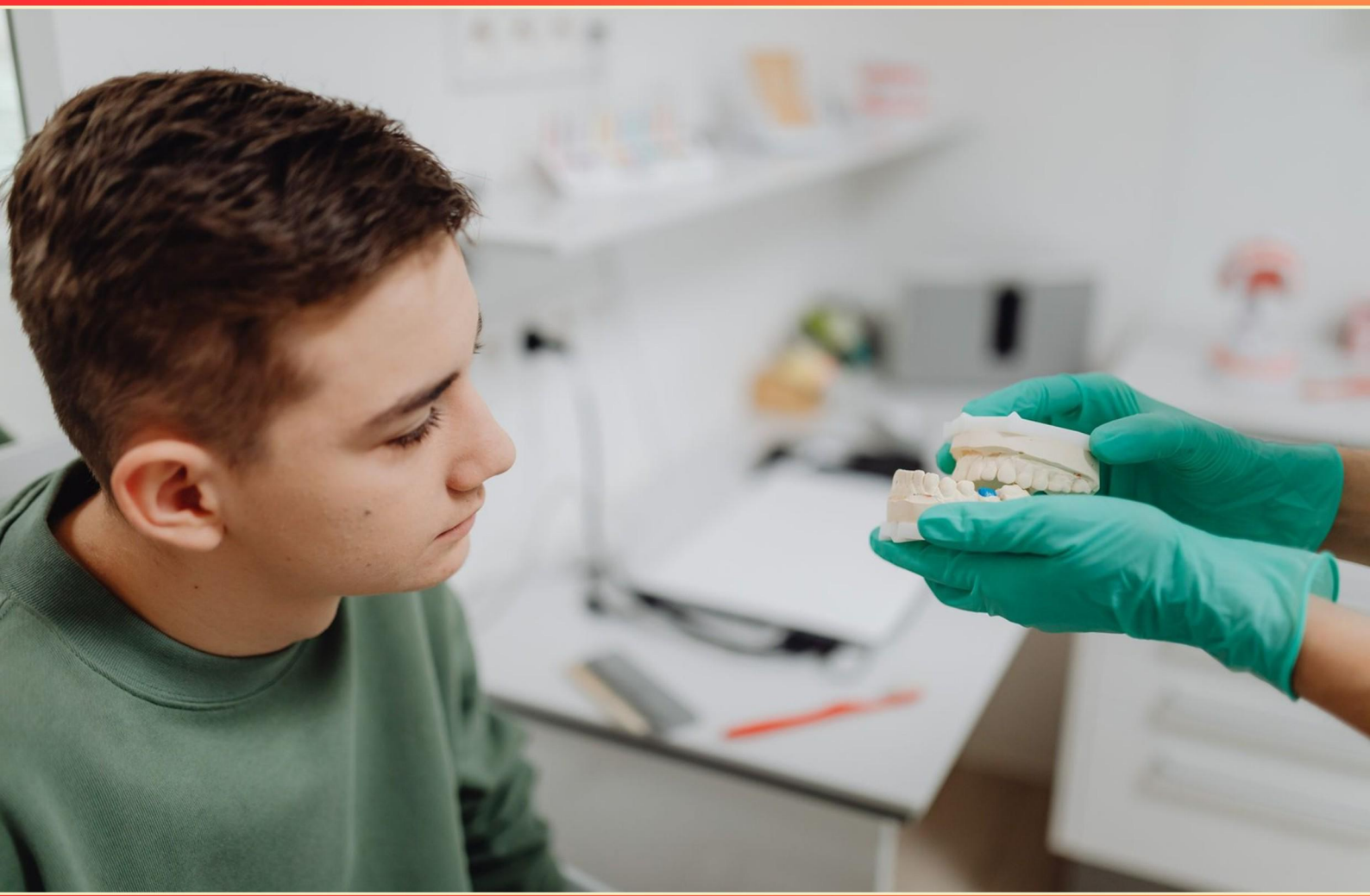
ITE NEPHROLOGY PRACTICE TEST (SAMPLE)

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.

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. AKI complicated by abdominal compartment syndrome is typically treated with?

A. High-volume diuresis

B. Urgent dialysis

C. Surgical decompression

D. Immunosuppressants

2. Hungry bone syndrome after parathyroidectomy is listed as a cause of which electrolyte disturbance?

A. Hypomagnesemia

B. Hyperkalemia

C. Hypophosphatemia

D. Hypocalcemia

3. Which condition is a cause of normal anion gap metabolic acidosis?

A. Diarrhea

B. Lactic acidosis

C. Diabetic ketoacidosis

D. Uremia

4. A patient with metabolic acidosis has a positive urine anion gap and hyperkalemia. This pattern most strongly suggests which RTA?

A. Proximal RTA

B. Type 4 RTA

C. Distal/type 1 RTA

D. Diuretic-induced acidosis

5. Which of the following is listed as a cause of extraglomerular hematuria?

A. Kidney stone

B. Renal cell carcinoma

C. Glomerulonephritis

D. Nephrotic syndrome

6. Gitelman syndrome is best described by which profile?

A. High potassium and magnesium with high renin and aldosterone

B. Low potassium and magnesium with low renin and aldosterone

C. Normal potassium and magnesium with normal renin

D. Low potassium and magnesium with low renin and aldosterone

7. In severe isopropanol intoxication, which intervention may be required?

A. Hemodialysis

B. Gastric lavage

C. Fomepizole

D. IV diuretics

8. Urine findings that support glomerulonephritis in AKI include which of the following?

A. Eosinophils in urine

B. FeNa <15% or urine Na <10 with RBC casts and proteinuria

C. Muddy brown casts

D. FeNa >2% with bland urine

9. Which imaging study is used to evaluate nephrotic syndrome for cysts and reflux?

A. VCUG

B. MRI without contrast

C. Kidney ultrasound

D. Contrast-enhanced CT

10. Hungry bone syndrome after parathyroidectomy leads to which electrolyte disturbance?

A. Hypophosphatemia

B. Hyperkalemia

C. Hypermagnesemia

D. Hyperphosphatemia

Answers

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

Explanations

1. AKI complicated by abdominal compartment syndrome is typically treated with?

A. High-volume diuresis

B. Urgent dialysis

C. Surgical decompression

D. Immunosuppressants

Abdominal compartment syndrome causes AKI mainly because the raised intra-abdominal pressure mechanically compresses renal vessels and reduces renal perfusion. The fastest, most definitive way to treat this is to relieve that pressure with urgent surgical decompression (decompressive laparotomy). Lowering pressure restores blood flow to the kidneys and other organs, allowing renal recovery. High-volume diuresis won't address the underlying mechanical compression and can worsen hemodynamics by expanding interstitial edema without improving perfusion. Urgent dialysis treats the kidney failure component but does not relieve the abdominal pressure driving the dysfunction. Immunosuppressants have no role in resolving intra-abdominal hypertension.

2. Hungry bone syndrome after parathyroidectomy is listed as a cause of which electrolyte disturbance?

A. Hypomagnesemia

B. Hyperkalemia

C. Hypophosphatemia

D. Hypocalcemia

When parathyroid hormone levels fall after parathyroidectomy, the bones rich in calcium begin to remineralize rapidly. This shifts calcium from the blood into bone, causing a fall in serum calcium known as hungry bone syndrome. The primary and most clinically important electrolyte disturbance is hypocalcemia, which can produce symptoms like tingling, muscle cramps, tetany, and even seizures. While calcium, phosphate, and magnesium can all be affected and levels of phosphate and magnesium may also drop as minerals move into bone, the defining and most characteristic disturbance in this scenario is low calcium. Hyperkalemia doesn't fit the mechanism, and although hypophosphatemia or hypomagnesemia can occur, they are secondary to the dominant issue of hypocalcemia.

3. Which condition is a cause of normal anion gap metabolic acidosis?

A. Diarrhea

B. Lactic acidosis

C. Diabetic ketoacidosis

D. Uremia

Normal anion gap metabolic acidosis happens when bicarbonate is lost or retained with a compensatory rise in chloride, so the measured anion gap stays within the normal range. A classic example is bicarbonate loss through the gastrointestinal tract, such as from diarrhea, where stool bicarbonate is excreted and chloride increases to maintain electroneutrality, producing a hyperchloremic, normal-gap acidosis. The other conditions listed raise the anion gap because they introduce extra unmeasured anions into the blood: lactate in lactic acidosis, ketone bodies in diabetic ketoacidosis, and various retained acids in uremia. Therefore, diarrhea is the cause that results in normal anion gap metabolic acidosis.

4. A patient with metabolic acidosis has a positive urine anion gap and hyperkalemia. This pattern most strongly suggests which RTA?

A. Proximal RTA

B. Type 4 RTA

C. Distal/type 1 RTA

D. Diuretic-induced acidosis

Urine anion gap reflects how much ammonium (NH4+) the kidneys are excreting to counteract metabolic acidosis. In metabolic acidosis, the kidneys should boost NH4+ excretion, and this NH4+ is balanced in urine by accompanying chloride. When NH4+ excretion is high, chloride in urine rises and the urine anion gap tends to be negative. If NH4+ excretion is impaired, the chloride balance is reduced and the urine anion gap becomes positive. Hyperkalemia points to reduced aldosterone action or resistance, which characterizes Type 4 RTA. In this form, diminished aldosterone effect lowers NH4+ production and excretion, giving a positive urine anion gap, while potassium tends to be elevated because of reduced distal potassium secretion. Distal RTA can also show a positive urine anion gap, but it typically presents with hypokalemia rather than hyperkalemia. Proximal RTA usually preserves ammonium excretion and tends to have a negative urine anion gap with hypokalemia. Diuretic-induced acidosis can cause a positive gap, but the accompanying hyperkalemia specifically points toward aldosterone-related (Type 4) RTA. So the combination of metabolic acidosis, a positive urine anion gap, and hyperkalemia is most consistent with Type 4 RTA.

5. Which of the following is listed as a cause of extraglomerular hematuria?

A. Kidney stone

B. Renal cell carcinoma

C. Glomerulonephritis

D. Nephrotic syndrome

Extraglomerular hematuria comes from bleeding sources outside the glomerulus, inside the urinary tract. The classic example among the options is a kidney stone, which can irritate the lining of the kidney, calyces, or ureter as it moves, leading to visible blood in the urine. This type of bleeding is typically non-glomerular in origin and often presents with painless hematuria, sometimes accompanied by colicky flank pain. In contrast, glomerulonephritis involves the filtering units of the kidney themselves, so the urine often shows dysmorphic red blood cells and sometimes red cell casts, reflecting glomerular injury. Nephrotic syndrome is a glomerular condition characterized by heavy protein loss, edema, and hypoalbuminemia, with hematuria not being the defining feature. Renal cell carcinoma can also cause hematuria if the tumor bleeds into the collecting system, but the most characteristic extraglomerular source listed is a kidney stone.

6. Gitelman syndrome is best described by which profile?

A. High potassium and magnesium with high renin and aldosterone

B. Low potassium and magnesium with low renin and aldosterone

C. Normal potassium and magnesium with normal renin

D. Low potassium and magnesium with low renin and aldosterone

Gitelman syndrome is a distal convoluted tubule defect in the Na-Cl cotransporter, producing a thiazide-like tubulopathy. This causes salt wasting with mild volume depletion, leading to low potassium and low magnesium in the blood. It also usually causes metabolic alkalosis and hypocalciuria. A distinguishing feature is that renin and aldosterone levels are not elevated; they are typically low to normal, unlike Bartter syndrome where renin and aldosterone are high due to more pronounced volume depletion. Therefore the profile of low potassium and magnesium with low renin and aldosterone best fits Gitelman syndrome.

7. In severe isopropanol intoxication, which intervention may be required?

A. Hemodialysis

B. Gastric lavage

C. Fomepizole

D. IV diuretics

In severe isopropanol poisoning, removing the toxin quickly can be life-saving. Isopropanol is absorbed fast and is broken down to acetone, with the parent compound contributing to toxicity and an osmolar gap. In serious cases with very high blood levels or significant metabolic disturbance, hemodialysis can rapidly clear both isopropanol and acetone from the blood and correct the osmolar gap and any acidosis, which is why it may be required. Fomepizole blocks alcohol dehydrogenase and is used for methanol or ethylene glycol poisoning; it doesn't improve isopropanol toxicity and can be unhelpful here. Gastric lavage is unlikely to help because alcohols are quickly absorbed, and intravenous diuretics do not effectively enhance toxin removal and may worsen dehydration. So, dialysis stands out as the intervention that may be required in severe cases.

8. Urine findings that support glomerulonephritis in AKI include which of the following?

A. Eosinophils in urine

B. FeNa <15% or urine Na <10 with RBC casts and proteinuria

C. Muddy brown casts

D. FeNa >2% with bland urine

In AKI attributable to glomerular disease, the urine often shows red blood cell (RBC) casts and proteinuria because the glomerular basement membrane is damaged and leaks protein while blood cells escape into the filtrate and form casts in the tubules. The fractional excretion of sodium (FeNa) helps separate prerenal azotemia from intrinsic renal injury, but in glomerulonephritis the tubules can still reabsorb sodium well, so FeNa may remain relatively low (less than about 15%). Therefore, a finding of RBC casts and proteinuria with a FeNa under 15% supports glomerulonephritis as the cause of AKI. By contrast, eosinophils in urine point toward acute interstitial nephritis; muddy brown casts point to acute tubular necrosis; and a high FeNa with bland urine is typical of ATN rather than GN.

9. Which imaging study is used to evaluate nephrotic syndrome for cysts and reflux?

A. VCUG

B. MRI without contrast

C. Kidney ultrasound

D. Contrast-enhanced CT

The key idea is using an imaging study that safely and effectively surveys the kidney's structure to look for cysts and signs that might point to reflux-related changes. Renal ultrasound fits best because it can clearly visualize cysts, assess overall kidney size and parenchymal appearance, and detect hydronephrosis or scarring that can accompany reflux. It's noninvasive, free of radiation, and well tolerated in children, making it the ideal initial study in suspected nephrotic syndrome to screen for structural abnormalities. A voiding cystourethrogram specifically targets vesicoureteral reflux, often after an abnormal ultrasound or infection, but it's invasive and not used to screen for cystic disease. MRI without contrast provides detailed anatomy but is more costly and less practical as a first-line test, while contrast-enhanced CT involves radiation and contrast risks and is not routinely required for this presentation. Thus, kidney ultrasound best addresses the need to evaluate for cysts and reflux-related changes in nephrotic syndrome.

10. Hungry bone syndrome after parathyroidectomy leads to which electrolyte disturbance?

A. Hypophosphatemia

B. Hyperkalemia

C. Hypermagnesemia

D. Hyperphosphatemia

Hungry bone syndrome after parathyroidectomy is a rapid remineralization process where the bone avidly takes up minerals from the blood once excessive PTH is removed. The sudden fall in PTH drives osteoblast-driven uptake of calcium and phosphate into bone, leading to low serum phosphate (hypophosphatemia) along with often low calcium. This bone-first mineral deposition explains the electrolyte pattern most characteristic of this syndrome. Hyperkalemia, hypermagnesemia, and hyperphosphatemia don't fit this mechanism. Potassium and magnesium disturbances aren't the primary feature, and phosphate levels drop because phosphate is being moved into bone rather than accumulating in the serum.

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!