Urinary System Pathologies 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. 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. **In CKD, anemia is primarily due to decreased production of which hormone?**

   A. Renin

   B. Aldosterone

   C. Erythropoietin

   D. Antidiuretic hormone

2. **Suppuration (formation or discharge of pus) of the kidney is called which term?**

   A. Nephritis

   B. Hydronephrosis

   C. Polycystic kidney disease

   D. Nephropyrosis

3. **Which lab pattern best suggests pre-renal AKI rather than intrinsic AKI?**

   A. FeNa >2% and BUN:Cr <10

   B. FeNa <1% and BUN:Cr <10

   C. FeNa >2% and BUN:Cr >20

   D. FeNa <1% and BUN:Cr >20

4. **Vesicoureteral reflux is best described as retrograde flow of urine during voiding. In children, this can lead to which consequences?**

   A. Recurrent pyelonephritis and reflux nephropathy with scarring and CKD

   B. Hypertension due to glomerulonephritis

   C. Nocturnal polyuria

   D. Hypotension

5. **What is the medical specialist who diagnoses and treats diseases of the kidney called?**

   A. Nephrologist

   B. Urologist

   C. Renal failure

   D. Uremia

6. Which statement about anemia in chronic kidney disease is accurate?

- **A. Iron deficiency is the sole cause of anemia in CKD.**
- **B. Anemia in CKD stems from decreased erythropoietin production by the kidneys.**
- **C. CKD does not affect red blood cell production.**
- **D. Polycythemia is common in CKD.**

7. Which term describes heavy protein loss in urine with low plasma protein due to glomerular damage?

- **A. Nephrosis**
- **B. Uremia**
- **C. Edema**
- **D. Nephrotic syndrome**

8. Urinary tract infections typically begin in the bladder.

- **A. Kidney**
- **B. Urethra**
- **C. Bladder**
- **D. Ureter**

9. Uremia is best defined as...

- **A. Absence of urine formation**
- **B. Progressive loss of renal function**
- **C. Very high levels of protein lost in urine**
- **D. A toxic condition resulting from renal failure in which urea is retained in the blood**

10. Difficulty starting a urinary stream is known as?

- **A. Oliguria**
- **B. Polyuria**
- **C. Urinary Hesitancy**
- **D. Urinary Retention**

Answers

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

Explanations

1. In CKD, anemia is primarily due to decreased production of which hormone?

A. Renin

B. Aldosterone

C. Erythropoietin

D. Antidiuretic hormone

In CKD, anemia happens mainly because the kidney's ability to produce erythropoietin drops. Erythropoietin is the hormone that stimulates red blood cell production in the bone marrow in response to low oxygen levels. As kidney function declines, fewer peritubular interstitial cells make EPO, so the bone marrow receives less signal to produce new red blood cells. The result is a reduced red cell mass, typically normocytic and normochromic anemia. The other hormones listed don't drive red blood cell production. Renin and aldosterone regulate blood pressure and fluid/electrolyte balance, while antidiuretic hormone helps control water reabsorption. Their levels don't control erythropoiesis, so they don't explain CKD-related anemia.

2. Suppuration (formation or discharge of pus) of the kidney is called which term?

A. Nephritis

B. Hydronephrosis

C. Polycystic kidney disease

D. Nephropyrosis

Suppuration is the formation of pus due to a bacterial infection. When this process occurs in the kidney itself, the term used is nephropyrosis, indicating pus within the renal tissue. This distinguishes it from simple inflammation (nephritis), which is primarily swelling and immune response without pus; from hydronephrosis, which is dilation of the kidney's collecting system due to obstruction; and from polycystic kidney disease, which involves multiple cysts in the kidney. Nephropyrosis specifically conveys the presence of purulent material in the kidney, making it the best fit for suppuration of the kidney.

3. Which lab pattern best suggests pre-renal AKI rather than intrinsic AKI?

A. FeNa >2% and BUN:Cr <10

B. FeNa <1% and BUN:Cr <10

C. FeNa >2% and BUN:Cr >20

D. FeNa <1% and BUN:Cr >20

The key idea is using how the kidney responds to reduced blood flow to tell prerenal from intrinsic AKI. In prerenal AKI, reduced perfusion triggers the kidney to hold onto sodium and water. That means the fractional excretion of sodium is very low, typically less than 1%, and urea is reabsorbed more, so the BUN rises relative to creatinine, giving a BUN:Cr ratio greater than about 20. So the pattern of a very low FeNa (<1%) together with a high BUN:Cr (>20) fits prerenal AKI best, because it reflects both sodium and water conservation and increased proximal reabsorption of urea. High FeNa (>2%) points toward intrinsic renal injury, where damaged tubules fail to reabsorb sodium efficiently, and BUN:Cr is not typically elevated in the prerenal range. A low BUN:Cr with a low FeNa would be atypical for prerenal AKI, since prerenal states usually show the opposite BUN behavior.

4. Vesicoureteral reflux is best described as retrograde flow of urine during voiding. In children, this can lead to which consequences?

A. Recurrent pyelonephritis and reflux nephropathy with scarring and CKD

B. Hypertension due to glomerulonephritis

C. Nocturnal polyuria

D. Hypotension

Vesicoureteral reflux lets urine flow backward from the bladder into the ureters and kidneys during voiding. In children, this backflow provides a route for bacteria to ascend to the kidneys, increasing the risk of recurrent upper urinary tract infections (pyelonephritis). Repeated kidney infections in the setting of reflux can lead to reflux nephropathy, where inflammation and scarring of renal tissue occur. Over time, this scarring can impair kidney function and contribute to chronic kidney disease. Hypertension due to glomerulonephritis, nocturnal polyuria, and hypotension are not typical consequences of VUR in this context, making recurrent pyelonephritis and reflux nephropathy with scarring and CKD the most accurate description.

5. What is the medical specialist who diagnoses and treats diseases of the kidney called?

A. Nephrologist

B. Urologist

C. Renal failure

D. Uremia

The main idea is identifying the medical field that focuses on kidney diseases and their medical management. A nephrologist is a physician who specializes in diagnosing and treating diseases of the kidneys. They handle conditions like chronic kidney disease, acute kidney injury, electrolyte and acid-base disorders, and hypertension related to kidney problems. They also manage therapies such as dialysis and coordinate transplant evaluation when needed. In contrast, a urologist is a surgeon who treats structural or surgical issues of the urinary tract, such as kidney stones or cancers, often requiring procedures rather than ongoing medical management. Renal failure and uremia describe the condition and its toxin buildup, not a doctor. So, the specialist who diagnoses and treats kidney diseases is a nephrologist.

6. Which statement about anemia in chronic kidney disease is accurate?

A. Iron deficiency is the sole cause of anemia in CKD.

B. Anemia in CKD stems from decreased erythropoietin production by the kidneys.

C. CKD does not affect red blood cell production.

D. Polycythemia is common in CKD.

The main idea is that anemia in chronic kidney disease is driven primarily by reduced erythropoietin production by the kidneys. Erythropoietin is the hormone that signals the bone marrow to produce red blood cells. In CKD, damaged kidneys make less erythropoietin, so the marrow isn't adequately stimulated to keep up with red cell production, leading to anemia that is typically normocytic and normochromic. Iron deficiency or inflammation can worsen anemia in CKD, but they are not the sole cause; without enough erythropoietin, the marrow can't produce enough red cells regardless of iron status. CKD also tends to shorten red blood cell lifespan and can impair iron utilization, reinforcing the deficit. Polycythemia is not a common feature of CKD, so that option doesn't fit the usual pattern.

7. Which term describes heavy protein loss in urine with low plasma protein due to glomerular damage?

A. Nephrosis

B. Uremia

C. Edema

D. Nephrotic syndrome

The main idea here is a glomerular leak that allows large amounts of protein to escape into the urine, leading to low protein levels in the blood. When the kidneys' filtering units are damaged, albumin and other proteins spill into the urine (heavy proteinuria). The loss of albumin lowers the blood's oncotic pressure, so fluid shifts into tissues, causing edema. This combination—heavy proteinuria with hypoalbuminemia and edema due to glomerular injury—is the signature of nephrotic syndrome. Nephrosis is an older term and not as precise for this pattern; uremia reflects buildup of waste products from kidney failure rather than the specific protein-loss picture, and edema can occur in many conditions but doesn't define the disease itself.

8. Urinary tract infections typically begin in the bladder.

A. Kidney

B. Urethra

C. Bladder

D. Ureter

Urinary tract infections typically begin in the bladder because bacteria from the periurethral area ascend into the bladder and adhere to the bladder's lining, where they multiply and cause cystitis. The bladder is the first major reservoir the organisms reach as they move upward, so symptoms commonly reflect bladder irritation—dysuria, urgency, frequency, and sometimes suprapubic discomfort. From there, the infection can ascend further via the ureters to reach the kidneys, leading to a more serious kidney infection, but the initial site in most cases is the bladder. The urethra is the entry route, and the ureters are simply the conduits to the kidneys, not typical starting points for infection.

9. Uremia is best defined as...

A. Absence of urine formation

B. Progressive loss of renal function

C. Very high levels of protein lost in urine

D. A toxic condition resulting from renal failure in which urea is retained in the blood

Uremia is a systemic toxic state that arises when kidney failure prevents clearance of waste products from the blood, especially urea. Normally, urea is filtered by the kidneys and excreted in urine; when renal function declines, urea and other nitrogenous wastes accumulate in the blood, producing a range of symptoms and organ dysfunction. This makes uremia fundamentally a toxic condition caused by retained urea due to kidney failure, rather than simply the absence of urine, the general process of progressing renal decline, or a feature like heavy protein loss in urine.

10. Difficulty starting a urinary stream is known as?

A. Oliguria

B. Polyuria

C. Urinary Hesitancy

D. Urinary Retention

Difficulty starting a urinary stream is called urinary hesitancy. It means there is a delay or struggle at the moment you try to begin urinating, often with straining or a weak/ intermittent flow. This symptom typically points to issues that impede initiation of flow, such as an obstruction (like an enlarged prostate or urethral narrowing) or problems with the bladder neck or detrusor muscle signaling. Oliguria means very low urine output, which is a volume issue rather than a problem starting to void. Polyuria means producing unusually large volumes of urine, also a volume issue. Urinary retention refers to the inability to empty the bladder completely, which can follow hesitancy if the flow fails to establish or continues to be insufficient to empty the bladder.

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://urinarysyspathologies.examzify.com

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