Cheap Nursing CEUs

Chronic Kidney Disease

1. Which part of the nephron reabsorbs most of the filtered water, electrolytes, and nutrients?

A. Thick ascending limb of the loop of Henle
B. Proximal convoluted tubule
C. Distal convoluted tubule
D. Collecting duct

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2. Which statement describes juxtamedullary nephrons?

A. About 15% of nephrons, with long loops of Henle that reach deep into the medulla
B. About 85% of nephrons, located near the cortical surface
C. Nephrons with short loops of Henle that stay in the cortex
D. Nephrons that do not help concentrate urine

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3. Which segment of the loop of Henle is highly permeable to water but not to solutes?

A. Thick ascending limb
B. Thin ascending limb
C. Thin descending limb
D. Distal convoluted tubule

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4. Which structure senses tubular sodium chloride and helps regulate glomerular filtration when blood pressure drops?

A. Juxtaglomerular apparatus, including the macula densa
B. Medullary rays
C. Renal columns
D. Renal sinus

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5. Which clinical scenario meets the definition of chronic kidney disease as described in the course content?

A. An adult with a single estimated GFR result of 55 mL/min/1.73 m² during an episode of dehydration that normalizes after rehydration
B. An adult whose estimated GFR has been 55 mL/min/1.73 m² for the past 4 months on repeated testing
C. An adult with an estimated GFR of 95 mL/min/1.73 m² and a single urine albumin?creatinine ratio of 80 mg/g

D. An adult with normal estimated GFR but microscopic hematuria documented intermittently for 4 weeks

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6. A nurse is explaining to a patient why chronic kidney disease is typically progressive, even when the initial insult such as hypertension or sepsis has been treated. Which explanation best reflects the described pathophysiology?

A. Single acute insults fully destroy all nephrons at once, and the kidneys are unable to mount any repair response, so function abruptly stabilizes but never declines further
B. Repeated microinjuries trigger a healing response in which interstitial fibroblasts replace functional nephron tissue with connective tissue, leading to renal fibrosis and ongoing loss of functioning nephrons
C. Tubular cells regenerate indefinitely after nephrotoxic exposure, so nephron number stays constant and progression is driven mainly by changes in dietary protein intake
D. Most CKD progression results from prerenal vasoconstriction alone, which is rapidly reversible and typically does not involve structural changes to the nephron

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7. A provider documents that a patient has “diabetic kidney disease, stage G3b A2.” According to the CGA (cause, GFR, albuminuria) classification framework described in the content, which interpretation is most accurate?

A. The cause is unspecified, G3b refers to severely increased albuminuria, and A2 denotes mildly increased GFR
B. G3b indicates normal kidney function, A2 indicates normal albumin excretion, and the cause label is used only for research and not clinical decision?making
C. The cause is diabetic kidney disease, G3b reflects moderately to severely decreased GFR, and A2 indicates moderately increased albuminuria
D. The cause is hypertension, G3b reflects acute kidney injury, and A2 indicates that albuminuria is absent

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8. A patient’s early?morning urine albumin?creatinine ratio (ACR) is reported as 420 mg of albumin per gram of creatinine on two occasions 3 months apart. How should this degree of albuminuria be classified?

A. Albuminuria that falls outside the KDIGO categories and therefore is not considered clinically significant
B. Category A2, reflecting moderately increased albuminuria (ACR 30–300 mg/g)
C. Category A1, reflecting normal to mildly increased albuminuria (ACR less than 30 mg/g)
D. Category A3, reflecting severely increased albuminuria (ACR greater than 300 mg/g)

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9. A patient with long?standing type 2 diabetes asks why controlling blood glucose matters for kidney health if CKD can also worsen diabetes. Which explanation best reflects the bidirectional relationship between these conditions as described in the course?

A. Diabetes and CKD are related mainly through dietary protein intake; vascular and tubular changes play a minimal role in disease interactions
B. Diabetes protects the kidneys from hypertension, but CKD raises blood sugar by directly secreting insulin from damaged glomeruli
C. Type 2 diabetes decreases glomerular filtration pressure, so kidney damage occurs only after end?stage renal disease develops, and CKD primarily improves insulin sensitivity
D. Chronic hyperglycemia damages the microvasculature of the nephron and causes hyperfiltration, while declining kidney function reduces the kidneys' ability to regulate glucose reabsorption, contributing to insulin resistance and further metabolic dysregulation

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10. For a patient with CKD and poorly controlled hypertension, why is aggressive systolic blood pressure management emphasized as a strategy to slow CKD progression?

A. Only diastolic, not systolic, blood pressure affects glomerular injury, so CKD guidelines focus primarily on lowering diastolic pressure below 60 mmHg
B. Hypertension mainly causes reversible prerenal azotemia without structural damage, so lowering blood pressure prevents transient rises in serum creatinine but has little effect on long ?term nephron loss
C. Systemic hypertension increases pressure within glomerular capillary beds, causing glomerular hypertension and glomerulosclerosis, and elevated systolic blood pressure specifically predicts faster CKD progression and complications
D. Blood pressure control is recommended solely to reduce stroke risk and does not meaningfully influence albuminuria or renal outcomes in CKD

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11. A patient with obesity asks how weight contributes to kidney disease beyond increasing cardiovascular risk. Which mechanism best reflects how obesity independently promotes CKD and its progression, according to the course content?

A. Obesity primarily reduces renal perfusion by shrinking kidney size, which lowers glomerular capillary surface area but does not alter systemic inflammation or RAAS activity
B. Visceral adiposity activates metabolic pathways that cause chronic inflammation, insulin resistance, glomerular hyperfiltration, salt and water retention, and RAAS activation, all of which damage renal blood vessels and impair glomerular filtration
C. Obesity decreases insulin levels and therefore protects against glomerular hyperfiltration, making CKD risk dependent almost entirely on coexisting heart failure
D. Obesity improves tubular sodium handling and consistently reduces albuminuria, so its impact on CKD is limited to mechanical compression of the bladder

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12. A patient with stage 3 CKD asks why the healthcare team is so concerned about his heart when his main diagnosis involves the kidneys. Which explanation best reflects the cardiovascular implications of CKD described in the course?

A. Cardiovascular complications occur in CKD only when dialysis is initiated, because dialysis itself causes most myocardial and vascular changes
B. CKD reduces cardiovascular risk by lowering circulating lipids and calcium, so heart disease is largely unrelated to kidney function in this population

C. CKD promotes inflammation, oxidative stress, RAAS activation, fluid overload, hemodynamic alterations, mineral and bone disorders, and accumulation of uremic toxins, leading to vascular calcification, fibrosis, and cardiac hypertrophy that markedly increase the risk of coronary artery disease, stroke, heart failure, arrhythmias, and sudden cardiac death
D. CKD primarily affects the venous system, causing varicose veins and superficial thrombophlebitis, with little impact on myocardial structure or arterial stiffness

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13. Which statement best supports a Cystatin C-based estimate in a patient with low muscle mass?

A. Serum creatinine rises earlier than Cystatin C in CKD
B. Cystatin C is stored in skeletal muscle and reflects muscle bulk
C. Cystatin C is produced by all cells at a steady rate and is less affected by muscle mass than creatinine
D. Urinary Cystatin C is the best marker in most patients

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14. A patient's serum creatinine and BUN are checked to evaluate renal function. Which statement best reflects the limitations of these tests as described in the course?

A. Serum creatinine may not rise until kidney function has declined by about 50%, and creatinine clearance tends to overestimate GFR by 10–20%, while BUN can be elevated by non ?renal factors such as high protein intake and hydration status
B. Serum creatinine precisely reflects real?time GFR even with small changes, whereas BUN is unaffected by diet or volume status and therefore always indicates intrinsic renal pathology
C. BUN is the preferred test for early CKD because it is never influenced by liver function or protein metabolism, while creatinine is useful only in end?stage disease
D. Creatinine clearance typically underestimates GFR by 50%, making it unreliable for any staging of CKD compared with BUN alone

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15. A primary care clinic wants to screen high?risk patients for albuminuria but cannot reliably perform 24?hour urine collections. According to best practices described in the content, which collection strategy is most appropriate for assessing albumin?creatinine ratio (ACR) in this setting?

A. Use a midstream urine sample to measure specific gravity only, because concentrating ability directly substitutes for albumin?creatinine ratio
B. Rely on a random urine dipstick alone, since dipsticks accurately quantify albumin excretion without the need for creatinine measurement
C. Obtain an early?morning or first?morning spot urine sample and calculate the urine albumin? creatinine ratio
D. Draw a fasting blood sample for serum albumin and calculate ACR from serum values when 24?hour urine is not feasible

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16. A nurse is counseling a patient with stage G3 CKD about lifestyle measures to slow disease progression based on KDIGO?aligned recommendations. Which plan best reflects these

evidence?based targets?

A. Focus primarily on fluid restriction, encourage very low protein intake in children to prevent hyperfiltration, and allow systolic blood pressure to fluctuate without treatment unless symptoms develop
B. Avoid regular physical activity to reduce metabolic demand on the kidneys, increase daily protein intake to more than 1.5 g/kg/day, and maintain systolic blood pressure above 150 mmHg to preserve renal perfusion
C. Restrict sodium severely while encouraging high?protein diets in all adults and children with CKD, regardless of growth and development needs, and target systolic blood pressure under 100 mmHg in all patients
D. Engage in about 150 minutes per week of cumulative moderate?intensity physical activity as tolerated, maintain a protein intake around 0.8 g/kg/day in adults with G3–G5 CKD, limit sodium intake to less than 2 g/day (about 5 g of sodium chloride), and aim for a treated systolic blood pressure below 120 mmHg when tolerated

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17. A 52?year?old patient has CKD, type 2 diabetes, and severely increased albuminuria. The provider is deciding how to manage albuminuria pharmacologically. Which strategy is most consistent with the KDIGO?based guidance described in the course?

A. Begin dual therapy with an ACE inhibitor and ARB together to maximize RAAS blockade in all patients with diabetic kidney disease
B. Avoid ACE inhibitors and ARBs in CKD with diabetes and albuminuria because they increase albumin excretion and accelerate progression
C. Initiate a renin–angiotensin system inhibitor such as an ACE inhibitor or ARB promptly, because patients with CKD, diabetes, and albuminuria benefit from early RAAS blockade
D. Delay RAAS blockade until the patient reaches CKD stage G5 and is starting dialysis, because these medications have no benefit earlier in the disease course

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18. A patient with stage G4 CKD self?treats frequent heartburn with over?the?counter acid?suppressing medications. Based on the course content, which teaching point should the nurse prioritize regarding these agents?

A. H2 blockers and antacids can accumulate when GFR is low, and long?term proton pump inhibitor use is associated with CKD progression and mineral and bone disorders, so doses and alternatives should be reviewed with the provider
B. Over?the?counter H2 blockers and antacids are entirely excreted by the liver and are considered risk?free for patients with severe CKD at any dose
C. Proton pump inhibitors reduce the risk of CKD progression and can be taken indefinitely without monitoring in patients with low GFR
D. All nonprescription acid?suppressing medications are recommended in higher than usual doses for CKD to counteract uremic gastritis, without the need for renal dosing adjustments

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19. A nurse is preparing to educate a patient newly diagnosed with early?stage CKD. Which initial approach best aligns with recommended nursing strategies for assessing educational needs and

promoting self?management?

A. Begin by handing the patient a standardized pamphlet about dialysis access and transplant surgery, assuming all patients progress rapidly to end?stage disease
B. Ask open?ended questions such as “What do you know about your condition?” and “What would you like to know about chronic kidney disease?” to assess baseline knowledge and concerns before providing individualized information on diet, blood pressure, and glycemic control
C. Focus teaching on detailed interpretation of histologic biopsy findings before addressing diet, medications, or lifestyle factors
D. Delay patient education until symptoms become severe, because discussing CKD too early may increase anxiety and reduce adherence

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20. A patient receiving hemodialysis has an autogenous arteriovenous fistula (AVF) in the forearm. During assessment, which finding best indicates that the vascular access is patent and functioning as expected, according to the course content?

A. A cool, pale extremity distal to the fistula with nonpalpable pulses, suggesting that blood is being fully diverted through the AVF
B. Absence of any vibration or sound at the access site, indicating maximal resistance to blood flow through the fistula
C. A palpable thrill over the outflow vein and a continuous, low?pitched bruit on auscultation at the access site
D. A firm, silent access site with overlying skin discoloration and venous stasis ulcers, indicating that venous pressure is adequately elevated for dialysis

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