Acute Kidney Injury NCLEX Practice Questions

This quiz will test your knowledge on Acute Kidney Injury (also called Acute Renal Failure) in preparation for NCLEX.

1. _____ is solely filtered from the bloodstream via the glomerulus and is NOT reabsorbed back into the bloodstream but is excreted through the urine.*

A. Urea

B. Creatinine

C. Potassium

D. Magnesium

2. A patient with acute renal injury has a GFR (glomerular filtration rate) of 40 mL/min. Which signs and symptoms below may this patient present with? Select all that apply:*

A. Hypervolemia

B. Hypokalemia

C. Increased BUN level

D. Decreased Creatinine level

3. You're assessing morning lab values on a female patient who is recovering from a myocardial infraction. Which lab value below requires you to notify the physician?*

A. Potassium level 4.2 mEq/L

B. Creatinine clearance 35 mL/min

C. BUN 20 mg/dL

D. Blood pH 7.40

4. A 55-year-old male patient is admitted with a massive GI bleed. The patient is at risk for what type of acute kidney injury?*

A. Post-renal

B. Intra-renal

C. Pre-renal

D. Intrinsic renal

5. Select all the patients below that are at risk for acute intra-renal injury?*

A. A 45 year old male with a renal calculus.

B. A 65 year old male with benign prostatic hyperplasia.

C. A 25 year old female receiving chemotherapy.

D. A 36 year old female with renal artery stenosis.

E. A 6 year old male with acute glomerulonephritis.

F. An 87 year old male who is taking an aminoglycoside medication for an infection.

6. A patient with acute kidney injury has the following labs: GFR 92 mL/min, BUN 17 mg/dL, potassium 4.9 mEq/L, and creatinine 1 mg/dL. The patient's 24 hour urinary output is 1.75 Liters. Based on these findings, what stage of AKI is this patient in?*

A. Initiation

B. Diuresis

C. Oliguric

D. Recovery

7. A 36-year-old male patient is diagnosed with acute kidney injury. The patient is voiding 4 L/day of urine. What complication can arise based on the stage of AKI this patient is in? Select all that apply:*

A. Water intoxication

B. Hypotension

C. Low urine specific gravity

D. Hypokalemia

E. Normal GFR

8. True or False: All patients with acute renal injury will progress through the oliguric stage of AKI but not all patients will progress through the diuresis stage.*

True

False

9. Which patient below with acute kidney injury is in the oliguric stage of AKI:*

A. A 56 year old male who has metabolic acidosis, decreased GFR, increased BUN/Creatinine, hyperkalemia, edema, and urinary output 350 mL/day.

B. A 45 year old female with metabolic alkalosis, hypokalemia, normal GFR, increased BUN/creatinine, edema, and urinary output 600 mL/day.

C. A 39 year old male with metabolic acidosis, hyperkalemia, improving GFR, resolving edema, and urinary output 4 L/day.

D. A 78 year old female with respiratory acidosis, increased GFR, decreased BUN/creatinine, hypokalemia, and urinary output 550 mL/day.

10. You're developing a nursing care plan for a patient in the diuresis stage of AKI. What nursing diagnosis would you include in the care plan?*

A. Excess fluid volume

B. Risk for electrolyte imbalance

C. Urinary retention

D. Acute pain

11. While educating a group of nursing students about the stages of acute kidney injury, a student asks how long the oliguric stage lasts. You explain to the student this stage can last?*

A. 1-2 weeks

B. 1-3 days

C. Few hours to 2 weeks

D. 12 months

12. A patient with AKI has a urinary output of 350 mL/day. In addition, morning labs showed an increased BUN and creatinine level along with potassium level of 6 mEq/L. What type of diet ordered by the physician is most appropriate for this patient?*

A. Low-sodium, high-protein, and low-potassium

B. High-protein, low-potassium, and low-sodium

C. Low-protein, low-potassium, and low-sodium

D. High-protein and high-potassium

Define each of the below labs, list normal values, and the impact kidney injury has on their value.

Finding	Description	Normal Value	AKI	CKD
BUN	Measures the amount of urea in the blood. Shows how well kidneys are filtering it.	10-20	BUN levels can increase due to decreased kidney function, leading to reduced urea clearance.	BUN levels can be elevated due to decreased kidney function over time, leading to impaired urea clearance.
Cr	Creatinine is a waste product from muscle breakdown and is removed from the bloodstream via the glomerulus of the nephron. It is the only substance that is solely filtered out of the blood but not reabsorbed back into the system. It is excreted out through the urine. This is why a creatinine clearance test is used as an indicator for determining renal function and for calculating the glomerular filtration rate.	0.5-1.1	Levels can rise rapidly in AKI due to decreased kidney filtration.	Levels can gradually increase over time due to reduced kidney function.
Hct	Measures amount of erythrocytes in blood.	37-47 woman 42-52 men	Levels can be affected by AKI, especially in cases of dehydration or fluid overload.	Levels can decrease due to anemia related to decreased erythropoietin production.
Hgb	Protein found in erythrocytes which help carry oxygen to the body.	12-16 woman 14-18 men	Levels may be affected by AKI, especially if there is associated blood loss or hemolysis.	Anemia can develop due to decreased production of erythropoietin, which stimulates red blood cell production.
K+	Electrolyte that is very sensitive to the heart. Maintains nerve function,	3.5-5	levels can increase in AKI, especially if there is reduced kidney excretion of	levels can become elevated due to decreased

	muscle contraction and fluid balance.		potassium.	kidney excretion, potentially leading to hyperkalemia.
Ca+	Mineral that helps facilitate bone growth, blood clotting, muscle function, and nerve signaling.	8.5-10.5	levels may be affected by AKI, especially in cases of hyperphosphatemia or acidosis.	Levels can be altered due to abnormalities in vitamin D metabolism and phosphate regulation, potentially leading to hypocalcemia.