

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 infarction. 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. A 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

13. After an arteriovenous graft is inserted in a patient's right forearm, the patient reports pain and coldness in the right fingers. Which action would the nurse take?

- A. Remind the patient to take a daily low-dose aspirin tablet.
- B. Report the patient's symptoms to the health care provider.
- C. Elevate the patient's arm on pillows above the heart level.
- D. Teach the patient about normal arteriovenous graft function.

14. Which assessment finding would the nurse expect when a patient with acute kidney injury (AKI) has an arterial blood pH of 7.30?

- A. Persistent skin tenting
- B. Rapid, deep respirations
- C. Hot, flushed face and neck
- D. Bounding peripheral pulses

15. The nurse is planning care for a patient with severe heart failure who has developed increased blood urea nitrogen (BUN) and creatinine levels. Which aim will be the primary treatment goal?

- A. Augmenting fluid volume
- B. Maintaining cardiac output
- C. Diluting nephrotoxic substances
- D. Preventing systemic hypertension

16. Which statement by a patient with stage 5 chronic kidney disease (CKD) indicates that the nurse's teaching about management of CKD has been effective?

- A. "I need to get most of my protein from low-fat dairy products."
- B. "I will increase my intake of fruits and vegetables to 5 per day."
- C. "I will measure my output each day to help calculate the amount I can drink."
- D. "I need erythropoietin injections to boost my immunity and prevent infection."

17. Which information will the nurse monitor to determine the effectiveness of prescribed calcium carbonate (Caltrate) for a patient with chronic kidney disease (CKD)?

- A. Blood pressure
- B. Phosphate level
- C. Neurologic status
- D. Creatinine clearance

18. Sodium polystyrene sulfonate (Kayexalate) is prescribed to be given via nasogastric tube for a patient with hyperkalemia. Which assessment would the nurse make before administering the medication?

- A. Bowel sounds
- B. Blood glucose
- C. Blood urea nitrogen (BUN)
- D. Level of consciousness (LOC)

19. Which laboratory result would the nurse check before administering calcium carbonate to a patient with chronic kidney disease?

- A. Serum potassium
- B. Serum phosphate
- C. Serum creatinine
- D. Serum cholesterol

20. Which action will the nurse include in the plan of care to maintain the patency of a patient's left arm arteriovenous fistula?

- A. Auscultate for a bruit at the fistula site.
- B. Assess the quality of the left radial pulse.
- C. Irrigate the fistula with saline every 8 to 12 hours.
- D. Compare blood pressures in the left and right arms.

21. Which action by a patient who is using peritoneal dialysis (PD) indicates that the nurse

should provide more teaching about PD?

- A. The patient leaves the catheter exit site without a dressing.
- B. The patient plans 30 to 60 minutes for a dialysate exchange.
- C. The patient cleans the catheter while in the bathtub each day.
- D. The patient slows the inflow rate when experiencing abdominal pain.

22. A patient with diabetes who has bacterial pneumonia is being treated with IV gentamicin. Which laboratory value would the nurse monitor for adverse effects of the medication?

- A. Blood glucose
- B. Urine osmolality
- C. Serum creatinine
- D. Serum potassium

23. A patient has been hospitalized for 4 days with acute kidney injury (AKI) caused by dehydration. Which information will be **most** important for the nurse to report to the health care provider?

- E. The creatinine level is 3.0 mg/dL.
- F. Urine output over an 8-hour period is 2500 mL.
- G. The blood urea nitrogen (BUN) level is 67 mg/dL.
- H. The glomerular filtration rate is less than 30 mL/min/1.73 m².

24. A patient admitted with acute kidney injury due to dehydration has oliguria, anemia, and hyperkalemia. Which prescribed action would the nurse take **first**?

- I. Insert a urinary retention catheter.
- J. Administer epoetin alfa (Epogen).
- K. Place the patient on a cardiac monitor.
- L. Give sodium polystyrene sulfonate (Kayexalate).

25. A patient in the oliguric phase after an acute kidney injury has had a 250-mL urine output and an emesis of 100 mL in the past 24 hours. What is the patient's fluid restriction for the next 24 hours? 950 mL

$$350 + 600$$

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

6-20 mg/dL measures amount of urea nitrogen in blood.
Injury $\uparrow$ BUN, since it can't filter out.

Cr m- 0.6-1.2 mg/dL $\uparrow$ = dehydration, kidney damage or disease, muscle breakdown
F- 0.5-1.1 $\downarrow$ = severe kidney disease

↳ waste products from muscle breakdown

Hct m- 41-50 $\downarrow$ = anemia, common in CKD
F- 36-44
↳ measures % of RBC's in blood

Hgb m- 14-18 $\downarrow$ = anemia, common in CKD
F- 12-16
↳ protein in RBC that carries oxygen.

K⁺ 3.5-5 $\uparrow$ = kidneys can't filter out
 $\downarrow$ = early stage 5 kidney disease
↳ helps muscles, nerves, and heart function properly

Ca⁺ 9-11 $\uparrow$ = weakens bone/causes kidney stones
 $\downarrow$ = CKD more likely to get kidney failure, less able to produce vit. D = less calcium absorption from food
↳ mineral to assist with bone health, muscle function