

ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME _____

DISORDER/DISEASE PROCESS **Acute Kidney Injury**

REVIEW MODULE CHAPTER **59**

Alterations in Health (Diagnosis)

Acute Kidney Injury

Pathophysiology Related to Client Problem

Depletion and prolonged reduction in blood flow to the kidneys, bilateral obstruction of kidney structures and direct damage of kidneys.

Health Promotion and Disease Prevention

Adequate fluid intake (2 litres per day), maintaining healthy weight, avoid smoking and cautious use of NSAIDS and antibiotics as

ASSESSMENT

Risk Factors

Hypovolemia, Sepsis, use of NSAIDS, ibuprofen and aspirin, physical injury, Renal Vascular obstruction, Hepatic Failure, immunological injury, hypoxic injury, Prostate hyperplasia, tumor, bladder atony, stone, spinal cord injury

Expected Findings

Cardiovascular : fluid overload, dysrhythmia
Respiratory System: Shortness of breath, crackles, decreased oxygenation, scant to normal or excessive urine output, depending on the phase; possible hematuria
Neurological: muscle twitching, lethargy,

Laboratory Tests

Urinalysis, Arterial Blood Gas Analysis, Full Blood Count, BUN, urine specific gravity, serum electrolytes test,

Diagnostic Procedures

X-ray, Ultrasound, Kidney biopsy, cystography, Computed Tomography (CT) scan.

SAFETY CONSIDERATIONS

PATIENT-CENTERED CARE

Nursing Care

Strict monitoring of fluid intake and output. Avoiding nephrotoxic medications. Monitoring ECG for dysrhythmias. Reviewing lab values. Restrict fluid intake. Daily monitoring of Client's weight and

Medications

IV fluid therapy, sodium polystyrene sulfonate, sorbitol, diuretics (Mannitol, furosemide), phosphate-binding agents, sodium bicarbonate, Intravenous emergency medications (insulin, dextrose) calcium channel blockers.

Client Education

Educate the client on strict fluid intake. Enlighten the client to avoid foods rich in sodium, magnesium, phosphate and potassium and stick to his or her nutritional prescriptions.

Therapeutic Procedures

Continuous renal replacement therapy, peritoneal dialysis and hemodialysis

Interprofessional Care

Dietitian or nutrition should calculate calorie, protein and fluid needs for the client. Nephrologists to closely monitor kidney functioning of the client.

Complications

Electrolyte imbalance, fluid retention, dysrhythmias, hypertension, metabolic acidosis, uremia secondary infection