

Medications

- Allopurinol (ZYLORIM) tablet 100 mg - to treat the patient's gout
- Aripiprazole (ABILIFY) tablet 5 mg - to treat the patient's depression
- Atorvastatin (LIPITOR) tablet 80 mg - to control lipid levels in the patient
- Carvedilol (COREG) tablet 12.5 mg - to control the patient's hypertension
- Clopidogrel (PLAVIX) tablet 75 mg - to reduce thrombotic events for the patient
- Epoetin alfa-EPBX (RETACRIT) injection 10,000 units - to increase red blood cell level in the patient
- Gabapentin (NEURONTIN) capsule 300 mg - given if patient is in pain
- Gemfibrozil (LOPID) tablet 600 mg - to lower lipid levels in patient
- Heparin (PORCINE) injection 5,000 units - to prevent clots from forming in the patient
- Insulin lispro (HUMALOG) 100 units/mL injection 3-15 units - to treat patient's type 2 diabetes mellitus
- Isosorbide mononitrate (IMDUR) CR tablet 60 mg - to treat or prevent angina in the patient
- Metolazone (ZAROXOLYN) tablet 5 mg - to manage the patient's hypertension
- Polyethylene glycol (GLYCOLAX, MIRALAX) packet 15 g - to soften stool for patient's bowel movement
- Sevelamer carbonate (REVELA) tablet TABS 800 mg - to control the serum phosphate levels in the patient with chronic kidney disease
- Tamsulosin (FLOMAX) capsule 0.4 mg - to improve the rate of urine flow for the patient
- Trazodone (DESYREL) tablet 50 mg - to treat the patient's depression
- Furosemide (LASIX) 250 mg in sodium chloride 0.9% 125 mL infusion - diuretic to reduce the patient's extra fluid in body - edema

Lab Values/Diagnostics

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- Sodium: 137
- Potassium: 4.8
- Chloride: 10.3
- CO2, Venous: 22
- Anion Gap: 12.0
- BUN: 65 (!) - the patient had an acute kidney injury
- Creatinine, blood: 3.28 (!) - the patient had an acute kidney injury
- BUN/Creatinine ratio: 20
- Calcium: 8.5 (!) - abnormal test level from kidney disease in patient
- Uric acid: 5.4
- Phosphorus: 8.0 (!) - calcium test was abnormal for patient due to kidney function
- GFR, Est. nonafrican: 15 (!)
- GFR, est. African: 18 (!)
- GFR, estimated: 16 (!)
- Glucose: 76

Demographic Data

Date of Admission: 9/6/2022
Admission Diagnosis/Chief Complaint: Acute Kidney Injury
Age: 53 years old
Gender: Female
Race/Ethnicity: White or Caucasian
Allergies: No known allergies
Code Status: No CPR-Selective treatment
Height in cm: 162.6
Weight in kg: 105.9
Psychosocial Developmental Stage: generativity vs stagnation
Cognitive Developmental Stage: Alert and oriented x3
Braden Score: 18
Morse Fall Score: 4
Infection Control Precautions: Standard

Admission History

A 53-year-old female with a past medical history of chronic kidney disease that has progressively worsened was sent to ER for fluid overload. Upon workup, the patient was found to have progressive kidney failure with creatinine increasing by 1.0

Medical History

Previous Medical History: Asthma, congestive heart failure, hypertension, Diabetes mellitus type 2, depression, bipolar disorder, history of pneumonia, chronic obstructive pulmonary disease, and sleep apnea

Prior Hospitalizations: Hysterectomy, cardiac catheterization, and colon surgery.

Previous Surgical History: Hysterectomy (2008), knee arthroscopy (left), part removal colon with anastomosis, appendectomy, breast lumpectomy (left) (8/31/2016), cardiac catheterization (9/8/2020), colonoscopy, esophagogastroduodenoscopy with percutaneous endoscopic gastrostomy (2/8/2022), upper gastrointestinal endoscopy (2/12/2022), incision and drainage (left) (2/15/2022), and colon surgery.

Social History: Tobacco history: current everyday smoker (0.5 packs/day for 35 years (17.5 pack/year))-cigarettes
 Smokeless tobacco: never used
 Alcohol history: no
 Drug use: no
 Sexual activity: not currently

Pathophysiology

Disease process: A sudden injury to the kidney that results in a significant decline in renal filtration function is the cause of AKI, formerly known as acute renal failure. Due to this decline in function, the body begins to collect nitrogenous waste products (Capriotti et al., 2020).

S/S of disease: Reduced urine production and edema of the face and extremities are symptoms of fluid excess. Respiratory distress can result from pulmonary edema (Capriotti et al., 2020).

Method of Diagnosis: Acute kidney damage is diagnosed by urine analysis, serum electrolytes, serum creatinine, BUN, arterial blood gases, and CBC. Any obstructive process or changes in the kidneys' size and structure can be evaluated using radiographic imaging (Capriotti et al., 2020).

Treatment of disease: The underlying cause will determine how to treat acute renal damage. Fluid treatment is recommended for acute kidney injury in pre-renal patients. Once oliguria sets in for the patient, diuretics like furosemide (Lasix) may be given judiciously (Capriotti et al., 2020). The patient spent her time in the hospital on a continuous Lasix drip.

Active Orders

- Consult to Nephrology - acute kidney injury on chronic kidney disease- to treat the patient's acute kidney injury
- Basic metabolic panel with calcium total - to check the patient's kidney health
- Phosphorus - test if the patient's calcium test is abnormal and could lead to symptoms
- Uric acid - to test the levels of uric acid due to the patient having gout
- Pulse oximetry spot - to monitor the patient's oxygen
- Admission weight - to get a current weight of the patient
- Fluid restriction - the patient came to the ER with fluid overload so to lower fluid in the patient
- For blood sugar of 70 mg/dL or less - the patient is a diabetic
- Insert and/or maintain indwelling urethral catheter- manage acute urinary retention and urinary obstruction of the patient
- Insert/ maintain peripheral IV - the patient was on a Lasix drip so to maintain access for the medication
- Intake and output-number of voids and stools - the patient had fluid overload so to help treat it
- Maintain IV while on telemetry - ensure the patients IV was working properly during the stay
- Post hypoglycemia treatment and blood sugar greater than or equal to 80 mg/dL - to treat the patient's diabetes
- Up as tolerated - help with ADLs for the patient
- Vital signs per unit routine - to keep track of the patient's health
- Diet - Carb consistent - to keep the patient's blood sugar level from elevating due to having diabetes **1**

Diagnostics 9/6/2022 1328

X-ray chest single view- cardiomegaly noted.

Ultrasound bilateral duplex lower extremity veins – no evidence of deep or superficial vein thrombosis.

Ultrasound renal complete – both kidneys are visualized without hydronephrosis or stone. Blood flow is within limits in both kidneys.

Cat scan abdomen pelvis without contrast – free fluid around the liver, gastrostomy tube in place, status postop hysterectomy with retained feces in the sigmoid. No small or large bowel obstruction. Slightly distended urinary bladder. No other significant findings.

Physical Exam/Assessment

General: The patient was alert and responsive, and oriented to person and time. The patient experienced pain in the abdomen, and their appearance was appropriate.

Integument: The skin's temperature was cool to the touch, and the turgor was tight. There were no bruising, rashes, or wounds on the patient.

HEENT: The patient's head and neck were symmetrical; bilaterally, there were no visible signs of discoloration, lesions, or swelling in the patient's eyes. The sclera was white bilaterally, and the conjunctiva was pink and moist bilaterally. Hearing in the patient's ears was equal bilaterally. All teeth were present with a yellow color. The nose was midline with no bloody discharge or drainage.

Cardiovascular: There was a slight murmur present in the heart sounds. Not able to assess the patient's capillary refill due to having nail polish on both fingernails and toenails. There was pitting edema present 1+

Respiratory: There were crackles present in the lungs with labored breathing. The respiratory patterns were regular.

Genitourinary: The color of the urine was yellow and cloudy. The quantity of urine was 600 mL. The patient had an indwelling foley catheter size 16 placed during the stay at the hospital.

Gastrointestinal: The patient had active bowel sounds with a recent bowel movement at 1050 on 9/8/2022 in the bed. There were no drains or wounds present. The patient did have a gastrostomy tube present.

Musculoskeletal: All the patient's extremities had a full range of motion. The patient was assisted out of bed to the chair but wanted to return to bed from painful movement. Strength is two bilaterally on the lower extremities.

Neurological: MAEW was intact, and the patient was alert and oriented to person, place, and time. PERLA was round and reactive equally. The speech was straightforward but sometimes gargled. The patient was lethargic during the assessment.

Most recent VS (include date/time and highlight if abnormal): The patient's vitals were taken at 1045 on 9/8/2022 with a temperature of 97.3 F, heart rate of 56 beats per min, respiratory rate of 18 breaths per min, blood pressure of 115/38, and oxygen saturation of 99%. The patient had low blood pressure because the continuous Lasix drip lowered their blood pressure since they had high blood pressure.

Pain and pain scale used: The patient stated having a pain rated at 6 on a numeric pain scale 0-10.

Nursing Diagnosis 1 Excess fluid volume related to acute kidney injury as evidenced by edema	Nursing Diagnosis 2 Risk for infection related to urinary retention as evidenced by indwelling foley catheter	Nursing Diagnosis 3 Risk for acute confusion related to acute kidney injury as evidenced by urinary retention
Rationale Edema present in lower extremities.	Rationale Circumstances of present situation that could lead to infection.	Rationale Inability to initiate purposeful behavior.
Interventions Intervention 1: Administer diuretics to promote fluid excretion. Intervention 2: Monitor intake, output, and urine specific gravity at least every four hours.	Interventions Intervention 1: Minimize the patient's risk of infection by wearing gloves to maintain asepsis when providing direct care. Intervention 2: Assist the patient when necessary to ensure that perianal area is clean after elimination.	Interventions Intervention 1: Limit noise and environmental stimulation to prevent the patient from becoming more confused. Intervention 2: Keep the patient's possessions in the same place as much as possible.
Evaluation of Interventions Patient's fluid intake and output remain within established limits.	Evaluation of Interventions Patient does not experience signs and symptoms of infection.	Evaluation of Interventions Patient does not experience injury during episodes of acute confusion.

References (3) (APA):

Capriotti, T. & Frizzell, J.P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives*. (2nd ed.). F.A. Davis Company.

Jones & Bartlett Learning. (2020). *2021 Nurse's Drug Handbook* (19th ed.). Jones & Bartlett Learning

Phelps, L.L. (2020). *Sparks and Taylor's Nursing Diagnosis Reference Manual* (11th ed.). Wolters Kluwer