

Medications

Albuterol – Androgenic bronchodilator. Relaxes bronchial smooth muscle. To reduce exercise induced bronchospasm. (Jones, 2021). Educating the client prior on how to use an inhaler. And to check drug interaction of if they are taking another inhaler.

Amiodarone – Benzofuran derivative. Relaxes vascular smooth muscle in coronary circulation and improves blood flow. To prevent recurrent ventricular fibrillation (Jones, 2021). The client should be assessed prior to administration for bradycardia and check patents pacemaker because the drug can interfere with pacing (Jones, 2021).

Aspirin – Salicylate. Aspirin blocks the activity of cyclooxygenase, which is the enzyme needed for postganglionic synthesis (Jones, 2021). To prevent inflammatory. The client should be assessed for pain 1 hour prior to be given aspirin and assess the medication for possible drug interactions.

Digoxin – Cardiac glycoside. Digoxin increased the velocity and force of myocardial contraction, resulting in a positive inotropic effect. Client is taking this to treat chronic heart failure. Check the client's apical pulse before giving digoxin and should be on continuous ECG monitoring (Jones, 2021).

Rest of drugs on the last page

Demographic Data

Date of Admission: 10/09/2021

Admission Diagnosis/Chief Complaint: Fall/SOB & Acute Kidney Injury

Age: 78

Gender: Female

Race/Ethnicity: Caucasian

Allergies: Sulfa drugs

Code Status: Full code

Height in cm: 154.94 cm

Weight in kg: 41.2 Kg

Psychosocial Developmental Stage: Integrity Vs Despair

Cognitive Developmental Stage: Appropriate for her age.

Braden Score: 19

Morse Fall Score: 85

Infection Control Precautions: Standard

Pathophysiology

Acute kidney disease is the rapid function loss that is due to damage of the kidney's (Hinkle & Cheever, 2018). This could be due to a buildup in waste products in the blood and causes imbalance of fluid in the body. Acute kidney injury could also happen from blockage of the urinary tract and can severely affect the kidneys.

The client's signs and symptoms may be lethargies or critically ill, dehydrated, drowsiness, headache, muscle twitching, shortness of breath, confusion, chest pain, and possible seizures (Hinkle & Cheever, 2018).

Acute kidney injury can be diagnosed by measuring laboratory tests through creatinine, BUN, and decreased urine output (Hinkle & Cheever, 2018). These signs could be reversed if treated before permeant damage occurs. Other tests that could be done are a urinalysis, kidney biopsy, GFR, and blood tests. The clients GFR was elevated, BUN, and creatinine were all elevated showing acute kidney injury (Hinkle & Cheever, 2018).

Treatment is aimed at replacing renal failure and could be treated trough dialysis in severe cases. Other ways to help treat or prevent acute kidney injury is through fluids (IV fluids), vitamins, and certain medications (Hinkle & Cheever, 2018).

Lab Values/Diagnostics

RBC - 2.86 (3.80-5.41) due to anemia causing fatigue. Hgb - 10.0 (11.3 - 15.2) due to anemia iron deficiency. Hct - 30.7% (33.2-45.3%) due to anemia. MCV - 107.4 (79.5 - 98.1) due to MCH - 35.1 (27.0 - 34.2) due to. Auto neutrophil - 84% due to infection. Lymph auto - 7.1% (11.8 - 45.9) due to infection or inflammatory issue with the kidneys. BUN - 32 (7-25) due to acute/chronic kidney disease. Creatinine - 1.24 (0.60 - 1.20) due to chronic kidney disease. Calcium - 7.7 (8.6 - 10.3) cause the clients muscle weakness / fatigue. eGFR non-AA - 42 (>60) due to chronic kidney disease/injury. eGFR AA - 51 (>60) due to acute/chronic kidney disease.

Imaging: EKG monitoring. Echo – pulmonary edema and COPD. CT Angio chest - moderate cardiomegaly. XR shoulder – negative. STEMI – in progress. Chest X-ray – lungs clear, no pneumothorax or pleural effusion. Chest pain after fall.

Admission History

Client was admitted due to falling out of her bed and hitting her right side. She had pain when first being admitted, but it has subsided. When asked about pain she said a 0 out of 10 on a numeric pain scale. The client is not taking anything for pain. She also came in for shortness of breath upon exertion and acute kidney injury.

Medical History

Previous Medical History: Acute/chronic systolic heart failure, Acute chronic injury, Atrial fibrillation, chronic heart failure, COPD, Chronic kidney disease stage 3, coronary heart disease, hypertension, emphysema, seizure, nephropathy, pulmonary fibrosis.

Prior Hospitalizations: Bronchoscopy with lavage, ANESTH pacemaker insertion, appendectomy, total hysterectomy.

Previous Surgical History: Bronchoscopy with lavage, mammogram, ANESTH pacemaker insertion, appendectomy, total hysterectomy.

Social History: Client Denis any use of alcohol or substance use. Client is a former smoker and smoked about a pack ever few days. The client quit smoking more than 30 days ago. The client lives at home with her spouse and is independent.

Active Orders

Orthostatic BP - dizziness

UA - to rule out UTI

Stress test - arrhythmia with pacemaker and troponin low.

Device integration - due to arrhythmias with pacemaker.

Physical Exam/Assessment**General:**

- Client was alert and oriented to person, situation, place, and time (x4). She seemed tired, but not in any distress. Overall appearance is appropriate. Good hygiene and not disheveled.

Integument:

- Client's skin was warm, dry, and intact. Skin turgor was greater than 3 seconds. She had many bruises on her upper and lower extremities. Scar on her upper chest from pacemaker insertion. She was absent of rashes. Client's Braden scale was 18. The client is at mild risk for skin breakdown. No drains or wounds present.

HEENT:

- Client's head and neck appeared to be midline. Ears had no drainage or hearing impairment noted. Eyes appeared to be symmetrical and no drainage. Client's teeth were intact but discolored. Tongue appeared to be midline, pink, and moist.

Cardiovascular:

- Client had a pacemaker and heart sounds were clear. S1 and S2 were heard upon auscultation through a clicking noise. Pulses were palpable bilaterally in the brachial, radial, dorsal pedals, popliteal, and carotid arteries. Capillary refill was less than three seconds. No edema was present.

Respiratory:

- Lung sounds appeared normal and were clear upon auscultation. No accessory muscles used. No chest deformities noted.

Genitourinary:

- Urine had a foul odor and was cloudy. UA was ordered to rule out a possible UTI. Client denied any pain or burning when voiding. No urinary catheter in used. Client was able to ambulate with walker to bathroom. No dialysis.

Musculoskeletal:

- Pallor was pink, pain was a 0 out of 10, paralysis was denied, paralysis was not noted, and pulses were 77 bpm bilaterally. MAEW. Uses a walker and gait belt for assistive devices. ROM was passive with assistance. Client was able to ambulate but would be short of breath on short distances resembles her chief complaint upon admission. Her strength is equal bilaterally on all extremities. She does use ADL assistance but tries to be independent. Client has a fall risk of 85.

Neurological:

- Client can move all her extremities equally. Client exhibited PERLA. Client was A & O x4. Mental status is appropriate for her age. She was able to answer questions and understand what I was asking. Speech was audible and clear. No mumbling or slurred speech noted. Sensory was intact and her level of consciousness was alert.

Most recent VS (include date/time and highlight if abnormal):

- Temperature: 36 C, HR: 77 bpm, BP: 145/72, Spao2: 97%, RR: 20 rpm.

Pain and pain scale used:

- No pain. 0/10 on a numeric pain scale.

<p align="center">Nursing Diagnosis 1</p> <p align="center">Risk for falls related to falling out of bed as evidenced by recent fall.</p>	<p align="center">Nursing Diagnosis 2</p> <p align="center">Ineffective breathing pattern related to shortness of breath as evidenced by client can only go a short distance then needs a break.</p>	<p align="center">Nursing Diagnosis 3</p> <p align="center">Risk for fluid volume deficit related to acute kidney injury as evidenced by increased BUN level.</p>
<p align="center">Rationale</p> <p>Client fell getting out of bed and this led her to being admitted to the hospital. The client has a fall risk of 85.</p>	<p align="center">Rationale</p> <p>The client has shortness of breath with leads to an ineffective breathing pattern upon exertion like walking to the bathroom.</p>	<p align="center">Rationale</p> <p>Clients elevated BUN an indicate dehydration and can be a sign of kidney injury due to kidney injury/disease.</p>
<p align="center">Interventions</p> <p>Intervention 1: Use of assistive devices.</p> <p>Intervention 2: Assess environment for factors that could increase fall risk.</p>	<p align="center">Interventions</p> <p>Intervention 1: The client can be provided rest breaks during ambulation.</p> <p>Intervention 2: The patient can use pursed lip breathing.</p>	<p align="center">Interventions</p> <p>Intervention 1: Monitor serum electrolytes like elevated BUN.</p> <p>Intervention 2: Monitor output and input</p>
<p align="center">Evaluation of Interventions</p> <p>The client can use a walker in the hospital and always have the call light next to her. The bed lowered to prevent injury and walker close to her bed if she needed to reach it. The client should be close to the nurse's station.</p>	<p align="center">Evaluation of Interventions</p> <p>The client can be provided rest breaks during ADLs as well as help during them, so she does not become short of breath. Using pursed lip breathing which can help the client's overall ventilation.</p>	<p align="center">Evaluation of Interventions</p> <p>The client's elevated BUN levels can show fluid volume decrease which can indicate dehydration and could be related to kidney injury especially with her past kidney history. Monitor client's urine output for oliguria which is a sign for acute kidney injury.</p>

References (3) (APA):

Jones, D. W. (2021). *Nurse's drug handbook*. (A. Barlett, Ed.) (20th ed.). Jones & Bartlett

Learning.

Lakeview college of Nursing Diagnostic Lab Value Sheet

Sarah Bush Lincoln Center Hospital System. Medical Value

Pagana, K.D, Pagana, T. N. (2018). *Mosby's diagnostic and laboratory test reference* (6th ed.). St. Louis, MO.: Mosby.

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed). Wolters Kluwer

Medications:

Formoterol – Selective beta-adrenergic agonist. This drug attaches to beta receptors on bronchial membranes stimulating the enzyme cAMP to increase and inhibit histamine release. Which will relax the bronchial smooth muscle cells (Jones, 2021). Client is using it to prevent shortness of breath and wheezing. Prior to administering making sure the client can properly use a nebulizer and make sure there are no drug interactions that could happen with their other medications.

Ipratropium – Anticholinergic. This drug relaxes smooth muscles and causes bronchodilation. The client is taking this for her COPD. Before administering, make sure the doctor knows what antihistamines or IBS medications the client is taking because it may cause a drug interaction. Also prior to administering, make sure the client is not allergic (Jones, 2021).

Nitroglycerin – Nitrate. Nitroglycerin is the relaxation of vascular smooth muscles and causes artery and venous dilation. It also reduced cardiac afterload and preload (Jones, 2021). The client is taking this for chest pain and shortness of breath. Prior to administering nitroglycerin, nurses should check pulses and blood pressure. Also, educating that nitroglycerin should be avoided by light and kept in the light resistant packaging/bottle.

