Medications

amlodipine (Norvasc) tab 5mg oral daily for HTN and chest pain, **Pharmacological class**: Calcium channel blocker (Jones & Bartlett Learning, 2022) **Therapeutic class**: Antianginal, antihypertensive (Jones & Bartlett Learning, 2022). **Key nursing assessment**: assess patient frequently for chest pain when changing dose; monitor patient with liver

Due to iron deficiency anemia

RDW: 19.4 % **Normal**: 11% - 14.5% **Reason for abnormal** : Due to iron -deficiency anemia.

Monocytes: 12.3% **Normal**: 5% - 8% **Reason for abnormal:** due to possible infection or inflammatory process in the body

Basophiles: 1.8% **Normal:** 0.5%-1% **Reason for abnormal:** Due to possible inflammatory process in the body.

Troponin I: 0.071 ng/mL **Normal:** <0.03ng/mL **Reason for abnormal**: chronic renal failure.

Na: 131mEq/L **Normal**: 134-145 mEq/L **Reason for abnormal values**: Due to diarrhea/ vomiting.

Cl: 95mEq/L **Normal:** 98-106mEq/L **Reason for abnormal**: Due to diarrhea/ vomiting.

Glucemia: 125 mg/dL **Normal**: 70-99 mg/dL. **Reason for abnormal**: DM2 due to inadequate diet.

BUN 39 mg/dL **Normal:** 10-20mg/dL **Reason for abnormal**: Due to renal disease, excretory function of the kidneys decrease.

Creatinine: 4.79mg/dL **Normal**: 0.5-1.2mg/dL **Reason for abnormal**: Due to renal disease.

BUN/creatinine: 8 **Normal**: 10-20 **Reason for abnormal**: due to renal disease.

Ca: 8.2 mg/dL **Normal:** 8.7-10mg/dL **Reasons for abnormal**: Due to medications

GFR African American:11 **Normal** for age over65: 85 **Reason for abnormal:** Due to renal disease.

Demographic Data

Date of Admission: 02/11/23
Admission Diagnosis/Chief Complaint: i
levels/ heart racing, diarrhea
Age: 66
Gender: female
Race/Ethnicity: African American
Allergies: codeine, sulfa antibiotics, gaba
banana
Code Status: full
Height in cm: 162.6 cm
Weight in kg: 61.2 kg
Psychosocial Developmental Stage: Inte
Cognitive Developmental Stage: Forma
Braden Score: 19
Morse Fall Score: 77 high
Infection Control Precautions: contact,

Admission History

CC: Heart racing, diarrhea **HPI:** 66 y. o. f
end stage renal disease, on hemodialysis
comorbidities, non-specific complaints,
from dialysis for heart racing, w/improve
eval. , multiple shortness of breath w/exertion, w/diarrhea, N/V.

01/17/23, pneumonia 01/23/23, end stage renal disease 01/24/23.

Previous Surgical History: hysterectomy, left ankle fracture, knee surgery, back surgery, appendectomy, cardiac catheterization.

Social History: former smoker, packs/day 0.25, years 45, pack years 11.25, quit 09/21. Tobacco use: never. Substance use: no. Alcohol use: no.

Active Orders

Saline lock iv

Up as tolerated – w/ assistance due to weakness

Verify inform consent per protocol

Vital signs during dialysis & per unit routine for follow up

Report injury or leak from PICC/midline immediately to the physician due to possible iv complications

Notify physician of any drainage from PICC/midline, redness that does not resolve in 24 hrs.

Pathophysiology

Disease process: I chose to write about the end stage renal disease because my patient has it**. End stage renal disease** is the last stage of chronic renal failure. The deterioration of nephrons is up to 95% at that point and kidneys cannot filtrate nitrogenous wastes/metabolites or excrete fluid. This disease develops slowly through the years. Chronic renal failure is mostly caused by hypertension and diabetes mellitus (Cappriotti,2020). Other causes are glomerulonephritis, pyelonephritis, hereditary reasons, polycystic kidneys, renal cancers (Cappriotti, 2020). The disease develops through five stages. First stages do not give symptoms. The only change that occurs is in GFR or glomerular filtration rate. Glomerular filtration rate is the test used to show how good is a kidney function. GFR is the amount of blood plasma cleared of some substance per unit of time. Most commonly used substance for this test is creatinine (Hinkle, 2022). That means the more blood plasma is cleared of creatinine the kidney function is better. GFR is normally over 120 mL/min/ body surface, in young people. It naturally decreases with age. At the stage five this index is less than 15mL/min.

S/S of disease: In end stage renal disease many signs and symptoms develop. Kidneys cannot excrete electrolyte like sodium, potassium, phosphorus, calcium Their levels are over or under the normal values. That can lead to metabolic acidosis. Destruction of thrombocytes will cause thrombocytopenia and that will cause bleeding and bruising (Hinkle, 2022). Kidneys cannot eliminate water and that will cause fluid overload. Fluid overload can give respiratory problems and cardiac problems. Fluid overload in some patients will cause peripheral edema (Hinkle, 2022). Due to low erythropoietin production can cause anemia in these patients (Hinkle 2022). Person becomes weak, dizzy, pale, short of breath (Hinkle, 2022). BUN and creatinine are increasing because kidneys cannot eliminate metabolites. Calcium/ phosphorus ratio is always reciprocal. In this disease kidneys cannot eliminate phosphorus, it rises in the serum and calcium decreases. Low calcium will increase PTH parathormone and this hormone will pull calcium from the bones. This will cause uremic bone disease (Hinkle, 2022).

Method of Diagnosis: Diagnosis of end stage renal disease includes GFR, CBC with differential, serum electrolytes, potassium serum level, creatinine, BUN, urinalysis. Urinalysis can show presence of RBC, WBC and protein in the urine (Hinkle, 2022). Those are important signs that the kidneys are not

Medications

Clopidogrel (Plavix) tab 75mg oral daily. **Pharmacologic class**: P2Y12 platelet inhibitor (Jones & Bartlett Learning, 2022). **Therapeutic class**: Platelet aggregation inhibitor (Jones & Bartlett Learning, 2022). **Key nursing assessment**: obtain blood cell count if suspect hematologic problem. Assess patient with renal problem who will get this medication (Jones & Bartlett, 2022).

Dicyclomine (Bentyl) tab 20mg oral 3 times daily, for functional and irritable bowel syndrome. **Pharmacologic class**: Anticholinergic (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antispasmodic (Jones & Bartlett Learning, 2022). **Key nursing assessment**: assess patient for tachycardia before giving this drug. Assess patient for constipation and impaction. Monitor patients for pruritus and agitation, stop the drug (Jones & Bartlett Learning, 2022).

Apoetin alfa EPBX (Retacrit) inj. 2,000 units iv bolus once for anemia. **Pharmacologic class**: Erythropoietin (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antianemic (Jones & Bartlett Learning, 2022). **Key nursing assessment**: assess patients serum iron before and during the treatment as ordered. Assess patient for thrombotic or hypertensive complications (Jones & Bartlett Learning, 2022).

Apoetin alfa EPBX (Retacrit) inj. 4,000 units iv bolus for anemia. **Pharmacologic class**: Erythropoietin (Jones & Bartlett Learning, 2022). **Therapeutic class:** Antianemic (Jones & Bartlett Learning, 2022). **Key nursing assessment:** assess patients serum iron before and during the treatment as ordered. Assess patient for thrombotic or hypertensive complications (Jones & Bartlett Learning, 2022).

Folic acid (Folvite) tab 1mg oral daily for anemia and hyperlipidemia (Jones & Bartlett Learning, 2022). **Key nursing assessment**: assess patient for facial flushing.

Heparin (porcine) inj. 5,000 units subcut. Every 12 hours to prevent thrombosis, **Pharmacological class:** Anticoagulant (Jones & Bartlett Learning, 2022). **Therapeutic class**: Anticoagulant (Jones & Bartlett Learning, 2022). **Key nursing assessment:** Assess patient for bleeding and hematoma. Assess patient for hematocrit, platelet count, and occult blood in stool (Jones & Bartlett Learning, 2022).

Iron sucrose (Venofer) injection 100mg iv once for anemia. **Pharmacologic class**: Iron mineral (Jones & Bartlett learning, 2022). **Therapeutic class:** Hematinic (Jones & Bartlett Learning, 2022). **Key nursing assessment**: assess blood pressure often after drug administration. Assess hematocrit, hemoglobin, serum ferritin, transferrin as ordered before, during and after iron sucrose therapy (Jones & Bartlett Learning, 2022).

Lactulose (Chronulac) 10gm/15mL solution 20gm oral 3 times daily for constipation and portal encephalopathy. **Pharmacologic class**: Disaccharide (Jones & Bartlett Learning, 2022). **Therapeutic class**: colonic acidifier (Jones & Bartlett Learning, 2022). **Key nursing assessment**: Assess periodically serum electrolyte levels. Assess for dehydration, hyponatremia and hypokalemia (Jones & Bartlett Learning, 2022).

Metoprolol tartrate (Lopressor) tab 25mg 2 times daily for hypertension. **Pharmacological class**: Beta-1- adrenergic blocker (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antianginal, antihypertensive (Jones & Bartlett Learning, 2022). **Key nursing assessment:** Assess patient for worsening of heart failure because patient needs to be stabilized. Assess patient for glucose control, because metoprolol interfere with therapeutic effect of antidiabetic drugs (Jones & Bartlett Learning, 2022).

Montelucast (Singular) tab 10mg oral every evening for bronchospasm. **Pharmacologic class:** Leukotriene receptor antagonist (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antiallergen, antiasthmatic (Jones & Bartlett Learning, 2022). **Key nursing assessment:** assess patient for adverse reactions like eosinophilia, pulmonary and cardiac symptoms and notify the prescriber. Assess patient for suicidal tendencies (Jones & Bartlett Learning, 2022).

Pantoprazole (Protonix) tab 40mg oral daily for acid reflux disease. **Pharmacologic class**: Proton pump inhibitor (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antiulcer (Jones & Bartlett Learning, 2022). **Key nursing assessment:** Assess patient for decreased urine output or blood in the urine because pantoprazole can cause acute tubulointerstitial nephritis. Assess patient for diarrhea from C. difficile which can be severe in patient on pantoprazole and notify prescriber, drug to be withhold. In that situation patient needs fluids, electrolytes, protein and antibiotic (Jones & Bartlett Learning, 2022).

Physical Exam/Assessment

General: Patient is alert, responsive, oriented x4 to place, time, person and situation. Patient appears to be in distress due to pain. Appearance was appropriate for the situation.

Integument: Skin color dark brown Skin is cool and dry upon palpation. No rashes lesions or bruising. Scars on abdomen and right ankle from surgeries. Normal quantity, distribution, and texture of hair. Nails w/o clubbing or cyanosis. Skin turgor normal mobility. Capillary refill cannot be determined, nails on upper and lower extremities pail, capillary refill not noticed bilaterally.

HEENT: **Head and neck** are symmetrical, trachea is midline without deviation, thyroid is not palpable, no noted nodules. Bilateral carotid pulses are palpable and 2+. No lymphadenopathy in the head or neck is noted**. Eyes**: Bilateral sclera white, bilateral cornea clear, bilateral conjunctiva pale/ white. Bilateral lids moist without discharge or lesions noted. PERRLA bilaterally. EOMs intact bilaterally**. Ears**: Bilateral auricles no visible or palpable deformities, lumps or lesions. Bilateral canals clear no discharge noted. Person hears normal tone of voice and has no hearing aids. **Nose:** Septum is in midline, turbinates are moist and pink without exudate noted and no visible polyps. Bilateral frontal and maxillary sinuses nontender to palpation. **Throat**: Buccal mucosa and tongue pale pink, no lesions noted. Dentition good, has small partials.

Cardiovascular: Clear S1 an S2 without murmurs, gallops or rubs. PMI palpable at 5th intercostal space at MCL. Normal rate and rhythm.

Respiratory: Normal rate and pattern of respirations and non-labored, lung sound clear throughout anterior/posterior bilaterally, no wheezes, crackles, or ronchii noted.

Genitourinary: Urine color cannot be determined due to continuous diarrhea. Patient denies any blood in the urine. Output was 4x as watery stool.

Gastrointestinal: Abdomen is very tender, has discomfort on palpation, not palpated due to pain and patients refuse. Bowel sounds normoactive in all quadrants on auscultation. Patient is on renal diet and low fiber diet. Patient has good appetite, and ate fruits, cream of wheat and coffee.

Musculoskeletal: All extremities have active range of motion. Hand grips and pedal pushes and pulls demonstrate normal and equal strength. Patient used walker and is one assist when goes to the bathroom due to weakness and fatigue.

Neurological: Patient's LOC is alert and awake. PERRLA. Normal cognition on assessment.

Most recent VS (include date/time and highlight if abnormal): 0700 am : 131/ 80, 98.4 F, 96%, P 82, RR 16

1100 am: 123/72, 97.7 F, 97%, P 79, R 16

Pain and pain scale used: 0700am pain was 8/10 on scale 0-10.

@ 1100 am pain was 6/10 on scale 0-10, after patient was administered 650mg of acetaminophen at 1000am.

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Risk for injury due to chronic disease as evidenced by difficulty walking.	**Risk of dehydration related to active fluid loss and evidenced by frequent loose stools.**	**Risk for electrolyte imbalance related to renal disease and evidenced by laboratory values.**
Rationale	**Rationale**	**Rationale**
Patient is one assist with walker when needs to go to the bathroom.	**Patient had five loose stools in 5 hours. Her mouth is dry. She is thirsty and dizzy.**	**Patient's laboratory values: Na 131mEq/L, Cl 95 mEq/L, Ca 8.2 mg/dL. All values are below normal.**
Interventions	**Interventions**	**Interventions**
Intervention 1: Explain to patient importance of using the call light when needs help. **Intervention 2: Check frequently on patient.**	**Intervention 1: Encourage patient to eat small frequent meals and take fluids.** **Intervention 2: Consider avoiding medications that slow peristalsis**	**Intervention 1:Monitor laboratory values** **Intervention 2:Monitor possible causes of electrolyte imbalance**
Evaluation of Interventions	**Evaluation of Interventions**	**Evaluation of Interventions**
Patient agreed to follow instructions and is calling when needs help.	**Patient had a small meal and some fluids. We will monitor the patient.**	**Family agreed to monitor for signs of electrolyte imbalance when patient returns home.**

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