N321 Care Plan #1

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Lakeview College of Nursing

N321: Adult Health I

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Demographics (3 points)

Date of Admission 03/01/2024	**Client Initials** VN	**Age** 90 years old	**Gender** Female
Race/Ethnicity White or Caucasian	**Occupation** Unemployed	**Marital Status** Single/Widowed	**Allergies** hydrocodone, lisinopril, naproxen, tramadol, and Vicodin
Code Status DNR/DNI	**Height** 152.4 cm	**Weight** 45.7 kg	

Medical History (5 Points)

Past Medical History: Chronic obstructive pulmonary disease (COPD), Hyperlipidemia, Hypertension, Hypothyroidism, Chronic ulcerative colitis, Anemia

Past Surgical History: Colonoscopy, Appendectomy, Tonsillectomy, Coronary angioplasty with stent placement, Right femur fracture per patient (x-ray showed Intramedullary pinning of right femur)

Family History: Leukemia in the mother; Myocardial infarction, Cancer, Congestive heart failure, Hypertension, and Stroke in the father; Parkinson's disease in the brother

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): The client denies alcohol and drug use. The client stated she smoked 1 pack of cigarettes daily for 40 years but quit smoking about 19 years ago.

Assistive Devices: The client wears glasses and states she has a walker, but she does not use it all the time when she is walking.

Living Situation: The client lives alone in a single-story home. Her sons and daughter visit daily in the morning and assist her with transportation and buying necessities.

Education Level: The client states she graduated from high school.

Admission Assessment

Chief Complaint (2 points): Fall/pain of right hip

History of Present Illness – OLD CARTS (10 points):

The client is a 90-year-old female who came into the emergency room on 03/01/2024 after she fell and hit her head. She had complaints of right hip pain. The client stated she was using her walker to go to the bathroom and “lost my balance and fell down.” The client stated she hit her head but did not lose consciousness. She stated it took her “about 1 hour to get up.” The client stated she did not experience any pain from the fall. The client also stated that the pain in her right hip had been present before her fall. The pain has been present since her surgery, but she does not recall when the surgery took place. The client stated the pain was “constant throbbing and sometimes felt sharp” and rated the pain a 4 out of 10 when she moved. Aggravating factors are movement and sitting up. The pain was alleviated when she rested and was “not moving too much.” The client stated she does not take any medication for the pain and has seen a doctor before but stated, “the doctor did not know what was causing the pain or how to fix it.” When asked about any urinary symptoms related to the urinary tract infection, the client stated that she had been experiencing some urgency and burning for “about one week.” However, she “ignored it” and thought it “would go away later.” The client stated that it only burned when she urinated, rating the burning a 5 out of 10 on a pain scale, and nothing relieved the burning. She had not tried any previous treatment for relief and had not seen a doctor for the symptoms.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Urinary tract infection

Secondary Diagnosis (if applicable): Gastrointestinal bleed/Pain of right hip

Pathophysiology of the Disease, APA format (20 points):

A urinary tract infection is an infection of the urinary tract, which includes inflammation of the bladder, urethra, and prostate (Hinkle et al., 2021). In order for infection to happen, bacteria must enter the bladder and colonize the epithelium of the urinary tract where they begin to multiply and cause inflammation (Hinkle et al., 2021). The most common cause of urinary tract infections (UTIs) is *Escherichia coli* (E. coli), which generally lives in the gastrointestinal tract (Capriotti, 2020). Other organisms that can cause UTIs are *Proteus, Enterococci, Streptococci, and Staphylococcus epidermidis* (Capriotti, 2020). The urinary tract is normally sterile, and normal bacterial flora is typically at the urethral opening. In the case of E. coli, this is the most common cause of a UTI in women due to the closeness of the rectum to the urethra (Capriotti, 2020). The bacteria can also enter the urinary tract through intercourse and from the blood (Hinkle et al., 2021).

Clients who have UTIs have classic signs and symptoms of frequency, urgency, pain, or burning when urinating, nocturia, and sometimes hematuria (Capriotti, 2020). They can also have urinary retention, which causes only small amounts of urine to be excreted. The inflammation of the bladder and urethra causes these symptoms. Some clients may have suprapubic or back pain (Capriotti, 2020). Older adults may develop confusion with the onset of a UTI (Hinkle et al., 2021). If the infection worsens, the patient may develop urosepsis, where the bacterial infection travels into the bloodstream. In urosepsis, the client will have symptoms of fevers, chills, hypotension, disorientation, and severe confusion (Capriotti, 2020).

UTIs are diagnosed through urinalysis and urine culture (Capriotti, 2020). The urinalysis results will show white blood cells, a positive leukocyte esterase, and some red blood cells. A urine culture positive for infection will show a bacterial colony count greater than 100,000 CFU/mL but can be as low as 1,000/mL (Capriotti, 2020).

Antibiotics are the treatment of choice for UTIs (Capriotti, 2020). Culture and sensitivity tests are done to determine which antibiotic is appropriate to treat the infection (Capriotti, 2020). Different medication regimens have been shown to successfully treat UTIs, such as single dose administration, 3-day course regimen, or 7-day course regimen; typically, the 3-day course regimen is adequate in resolving UTIs in women (Hinkle et al., 2021). Some common antibiotics used are nitrofurantoin, fluoroquinolones, and cephalosporins (Hinkle et al., 2021). Other medications, such as analgesics, may be prescribed to treat pain from the infection. A common analgesic prescribed is phenazopyridine (Capriotti, 2020). Another treatment recommendation is adequate hydration (Capriotti, 2020). It is important to educate the client on finishing their prescribed antibiotic to prevent antibiotic resistance (Hinkle et al., 2021). It is also important to educate on the risk factors of UTIs, such as gender (more common in females), diabetes, inability to empty bladder, obstructed urinary flow, catheterization, low fluid intake, and poor hygiene practices (Hinkle et al., 2021).

This client did not come into the emergency room for symptoms of a UTI. However, in the interview, she stated she had been experiencing some urgency and burning when urinating. A urinalysis and urine culture were performed in the emergency room, and the urine was cloudy and dark with elevated white blood cells, red blood cells, and positive leukoesterase. This client received 1 gram of Rocephin every 24 hours to treat the infection.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). Chapter 23: Urological disorders. In *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis.

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. J. (2021). Chapter 49: Management of patients with urinary disorders. In *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.

Laboratory Data (15 points)

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	3.8 – 5.3/mcL	2.23/mcL	3.07/mcL	Low red blood cells can be caused by bleeding and anemia (Pagana et al., 2023, p. 749). The client has active bleeding in her gastrointestinal tract and is anemic.
Hgb	12.0 – 15.8 g/dL	7.3 g/dL	9.2 g/dL	Low hemoglobin levels can be caused by antibiotics, aspirin, and anemia (Pagana et al., 2023, p. 479). The client is currently on an antibiotic, taking aspirin, and is anemic.
Hct	36.0 – 47.0%	21.7%	27.3%	Low hematocrit levels can be due to dietary deficiency, bleeding, and anemia (Pagana et al., 2023, p. 476). The client has not had adequate nutrition and is anemic. She also has active bleeding in her gastrointestinal tract.
Platelets	140 – 440/mcL	277/mcL	232/mcL	**N/A**
WBC	4.0-12.0/mcL	14.8/mcL	12.6/mcL	Increased white blood cells can be due to infection and inflammation (Pagana et al., 2023, p. 946). The client has a urinary tract infection and possible inflammation in her gastrointestinal tract due to bleeding and ulcerative colitis.
Neutrophils	47.0 – 73.0%	94.2%	86.0%	Increased neutrophils can be due to infection and trauma (Pagana et al., 2023, p. 946). The client has a urinary tract infection and active bleeding in her gastrointestinal tract.

Lymphocytes	18.0 – 42.0%	1.7%	7.0%	Low lymphocytes can be caused by corticosteroid use (Pagana et al., 2023, p. 949). The client is taking a corticosteroid (prednisone).
Monocytes	4.0 – 12.0%	3.9%	6.4%	Low monocytes can be caused by anemia and prednisone use (Pagana et al., 2023, p. 949). The client is taking prednisone and is anemic.
Eosinophils	0.0 – 5.0%	0.0%	0.2%	**N/A**
Bands	0.0 – 3.0%	**N/A**	**N/A**	**N/A**

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136 – 145 mmol/L	133 mmol/L	131 mmol/L	Low sodium levels can be caused by NSAID use and anti-inflammatory drugs (Pagana et al., 2023, p. 803). The client is taking aspirin and Apriso.
K+	3.5 – 5.1 mmol/L	4.4 mmol/L	3.8 mmol/L	**N/A**
Cl-	98 – 107 mmol/L	102 mmol/L	104 mmol/L	**N/A**
CO2	22 – 30 mmol/L	21 mmol/L	**N/A**	Low CO2 levels can be caused by starvation and salicylate toxicity (Pagana et al., 2023, p. 188). The client's CO2 is not considerably low and could be due to nutritional deficiency. She is also taking aspirin, which can put her at risk for salicylate toxicity.
Glucose	70 – 99 mg/dL	128 mg/dL	93 mg/dL	Elevated glucose levels can be caused by corticosteroid use (Pagana et al., 2023, p. 451). The client is taking prednisone.
BUN	10 – 20 mg/dL	23 mg/dL	17 mg/dL	Elevated BUN can be caused by aspirin, dehydration, and GI bleeding (Pagana et al., 2023, p. 151). The client is taking aspirin and has an active GI bleed.
Creatinine	0.6 – 1.0 mg/dL	1.35 mg/dL	0.8 mg/dL	Elevated creatinine can be caused by dehydration and urinary tract

				obstruction (Pagana et al., 2023, p. 297). The client has not had adequate nutritional intake and has a UTI.
Albumin	3.5 – 5.0 g/dL	2.8 g/dL	**N/A**	Decreased albumin levels can be due to malnourishment (Pagana et al., 2023, p. 728). The client has had poor nutritional intake recently.
Calcium	8.7 – 10.5 mg/dL	8.7 mg/dL	9.1 mg/dL	**N/A**
Mag	1.6 – 2.6 mg/dL	**N/A**	**N/A**	**N/A**
Phosphate	3.0 – 4.5 mg/dL (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
Bilirubin	0.2 – 1.2 mg/dL	1.1 mg/dL	**N/A**	**N/A**
Alk Phos	40 – 150 U/L	70 U/L	**N/A**	**N/A**
AST	5 – 34 U/L	30 U/L	**N/A**	**N/A**
ALT	0 – 55 U/L	18 U/L	**N/A**	**N/A**
Amylase	30 – 220 units/L (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
Lipase	0 – 160 units/L (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
Lactic Acid	0.5 – 2.0 mmol/L	**N/A**	**N/A**	**N/A**

Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.8 – 1.1	**N/A**	**N/A**	**N/A**

	seconds			
PT	11 – 12.5 seconds (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
PTT	25 – 36 seconds	**N/A**	**N/A**	**N/A**
D-Dimer	<500 µg/L (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
BNP	<100 pg/mL (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
HDL	>40 mg/dL	**N/A**	**N/A**	**N/A**
LDL	<130 mg/dL	**N/A**	**N/A**	**N/A**
Cholesterol	<200 mg/dL	**N/A**	**N/A**	**N/A**
Triglycerides	<150 mg/dL	**N/A**	**N/A**	**N/A**
Hgb A1c	4 – 5.9% (nondiabetic) (Pagana et al., 2023).	**N/A**	**N/A**	**N/A**
TSH	0.3 – 5.0 m/U/L	**N/A**	**N/A**	**N/A**

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Clear amber yellow (Pagana et al., 2023).	Cloudy dark yellow	**N/A**	Cloudy and dark urine can indicate the presence of bacteria or pus and very concentrated urine for color (Pagana et al., 2023, p. 905).
pH	5.0 – 9.0	5.5	**N/A**	**N/A**
Specific Gravity	1.003 – 1.030	1.020	**N/A**	**N/A**
Glucose	Negative	Negative	**N/A**	**N/A**
Protein	Negative	2+	**N/A**	Aspirin can increase protein levels in urine and indicate renal problems (Pagana et al., 2023, p. 913). The

				client is taking aspirin and has a UTI.
Ketones	Negative	Trace	**N/A**	Elevated blood glucose causes ketones to be excreted in urine (Pagana et al., 2023, p. 908).
WBC	Negative, 0 – 5/hpf	6 – 10	**N/A**	Elevated white blood cells in urine show bacterial infection in the urinary tract (Pagana et al., 2023, p. 909).
RBC	Negative, 0 – 2/hpf	6 – 10	**N/A**	Bleeding in the urinary tract can cause elevated red blood cells in urine (Pagana et al., 2023, p. 914). The client has a UTI, and inflammation/irritation may be causing microscopic bleeding.
Leukoesterase	Negative	1+	**N/A**	A positive leukoesterase indicates UTI (Pagana et al., 2023, p. 909). The client is diagnosed with a UTI.

Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative: < 10,000 bacteria per milliliter of urine (Pagana et al., 2023).	20,000 staphylococcus epidermidis CFU/mL	**N/A**	A urine culture positive for infection will show a bacterial colony count greater than 100,000 CFU/mL but can be as low as 1,000/mL. *Staphylococcus epidermidis* can cause a UTI (Capriotti, 2020).
Blood Culture	Negative	**N/A**	**N/A**	**N/A**
Sputum Culture	Negative	**N/A**	**N/A**	**N/A**
Stool Culture	Negative	**N/A**	**N/A**	**N/A**

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020). Chapter 23: Urological disorders. In *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed., pp. 551-552). F.A. Davis.

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's diagnostic and laboratory test reference* (16th ed.). Elsevier

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

03/01/2024: X-ray hip with pelvis and unilateral right – No acute fracture or dislocation. Right intertrochanteric fracture of the neck of the femur stabilized by means of metallic fixture device in intramedullary pin. Left hip showed mild arthritic changes. Superior and inferior pubis and iliac bones intact. Small sclerotic density in the right iliac bone could be a bone island. Cannot rule out small blastic lesion.

CT head or brain without contrast – Age-appropriate cortical atrophy and small vessel change with confluence areas of decreased attenuation in white matter in both cerebral hemispheres. Prominence of ventricular system and extraxial cerebral spinal fluid spaces. Focal area of calcification in left posterior parietal location perhaps from prior inflammatory disease.

03/04/2024: Colonoscopy – Severe diverticulitis of sigmoid colon. Mild to moderate ulcerative colitis with friable mucosa. Small ulcerations are seen near the rectum. Blood is seen in the transverse colon, but stool blocks the view. The bowel prep was not completed fully. The colonoscopy could not be completed to find the source of the bleeding. The bowel prep is to be repeated, and the colonoscopy is rescheduled for 03/05/2024.

Diagnostic Test Correlation (5 points):

X-ray: An X-ray provides radiographic images of bones and can show any fractures or tumors in the area (Pagana et al., 2023). It can also detect joint destruction, spurring, healed fractures, and soft tissue swelling. Usually, two X-rays are done at a 90-degree angle to provide anteriorly and

posteriorly visualization; in hip X-rays, an oblique view may also be done (Pagana et al., 2023). In this client, an x-ray of the pelvis/right hip was done due to the client's complaints of right hip pain. The client's x-ray showed a healed fracture in the neck of the right femur that was stabilized with an intramedullary pin. There were no new fractures, but there was a possible bone island.

CT: A computed tomography (CT) scan of the head or brain without contrast provides a three-dimensional view of the cranial contents (Pagana et al., 2023). It is used to diagnose cerebral infarctions, ventricular enlargement, cortical atrophy, aneurysms, and hemorrhage or hematoma (Pagana et al., 2023). This client had a CT scan performed because she had hit her head when she fell. A CT is typically performed to rule out the possibility of a fracture or active bleeding. This client did not have any fractures or hemorrhaging and had age-appropriate changes.

Colonoscopy: A colonoscopy uses a scope to examine the entire colon (Pagana et al., 2023). During a colonoscopy, lesions, polyps, ulcers, and neoplasms can be visualized and biopsied if necessary. Any active bleeding in the colon can also be visualized and coagulated using electrocoagulation or a laser (Pagana et al., 2023). Colonoscopies are recommended for clients with any bowel changes, suspected bleeding, or an abnormal sigmoidoscopy. They are also done as preventative colorectal cancer screening (Pagana et al., 2023). In this client, the provider suspected possible gastrointestinal bleeding causing her anemia. A colonoscopy procedure was done, and active bleeding was seen; however, due to the bowel prep not being completed correctly, the surgeon was unable to locate the bleeding to stop it. The client has another colonoscopy scheduled for the following day.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's diagnostic and laboratory test reference* (16th ed.). Elsevier

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/ Generic	**Aspirin** (acetylsalicylic acid)	**Avapro** (irbesartan)	**Imuran** (azathioprine)	**Caltrate 600 + D Plus** (calcium carbonate vitamin D minerals)	**Centrum Silver** (multivitamin and minerals)
Dose	81 mg tablet	75 mg tablet	50 mg tablet	2 tablets	1 tablet
Frequency	Daily	Daily	Two times daily, morning and at bedtime	Daily	Daily with lunch
Route	Oral	Oral	Oral	Oral	Oral
Classification	Pharmacological: Salicylate Therapeutic: NSAID (Jones & Bartlett Learning, 2023).	Pharmacological: Angiotensin II receptor antagonist Therapeutic: Antihypertensive (Jones & Bartlett Learning, 2023).	Pharmacological: Purine antagonist Therapeutic: Immunosuppressant, antirheumatic, treat inflammatory bowel disease (Jones & Bartlett Learning, 2023).	Pharmacological: Calcium salts Therapeutic: Calcium replacement (Jones & Bartlett Learning, 2023).	Pharmacological/ Therapeutic: Multivitamin and mineral combination (Haleon group, 2023).
Mechanism of Action	Blocks prostaglandin synthesis and platelet aggregation (Jones & Bartlett Learning, 2023).	Blocks binding of angiotensin II to receptor sites and vasoconstriction effects (Jones & Bartlett Learning, 2023).	Prevent proliferation and differentiation of activated T and B cells (Jones & Bartlett Learning, 2023).	Calcium - increase intracellular/extracellular levels of calcium (Jones & Bartlett Learning, 2023). Vitamin D – increase calcium absorption in GI tract (Frandsen & Pennington, 2021).	Vitamins and minerals provide same function as natural vitamins obtained from natural sources (Frandsen & Pennington, 2021).
Reason Client Taking	Prevent myocardial infarction, stroke, or cerebrovascular accident (Jones & Bartlett Learning, 2023).	Hypertension (Jones & Bartlett Learning, 2023).	Ulcerative colitis (Frandsen & Pennington, 2021).	Maintain serum calcium levels (Jones & Bartlett Learning, 2023).	Improve health and prevent illness; increase intake of necessary vitamins and minerals (Frandsen & Pennington, 2021).
Contraindicati	Active	Impaired	Impaired hepatic	Concurrent use of	Former smokers –

ons (2)	bleeding Gastrointestinal ulcers (Jones & Bartlett Learning, 2023).	hepatic function Hyponatremia (Frandsen & Pennington, 2021).	function Anemia (Frandsen & Pennington, 2021).	calcium supplements Concurrent use of vitamin D supplements (Jones & Bartlett Learning, 2023).	Vitamin A increases the risk of lung cancer Calcium supplements - Too much makes it harder for the body to absorb some minerals (National Institute of Health - Office of Dietary Supplements, 2024).
Side Effects/Adverse Reactions (2)	GI bleeding, leukopenia (Jones & Bartlett Learning, 2023).	Hypotension, anemia (Jones & Bartlett Learning, 2023).	Hepatotoxicity, leukopenia, lymphoma (Jones & Bartlett Learning, 2023).	Calcium – nausea, vomiting, hypotension Vitamin D – vitamin D toxicity (headache, dysrhythmias, kidney damage, muscle and bone weakness) (Frandsen & Pennington, 2021).	Fat-soluble vitamins toxicity – A (hair loss, double vision, liver damage), D (headache, dysrhythmias, kidney damage, muscle, and bone weakness), E (risk of bleeding, headache, fatigue, nausea), K (facial flushing, alteration in taste) Minerals toxicity – Calcium, Magnesium, Zinc (nausea, vomiting, diarrhea, stomach bleeding) (Frandsen & Pennington, 2021).
Nursing Considerations (2)	Administer with or after meals Monitor for bleeding (Jones & Bartlett Learning, 2023).	Monitor blood pressure Monitor potassium levels (Jones & Bartlett Learning, 2023).	Obtain baseline CBC and liver function tests Monitor WBCs and signs of lymphomas due to history of inflammatory bowel disease (Jones & Bartlett Learning, 2023).	Monitor signs/symptoms of vitamin D toxicity Monitor serum calcium level and assess Chvostek's and Trousseau's sign (Jones & Bartlett Learning, 2023).	Monitor serum electrolyte levels Monitor for signs of toxicity (Frandsen & Pennington, 2021).

Hospital Medications (5 required)

Brand/Generic	**Prednisone Intensol** (prednisone)	**Rocephin** (ceftriaxone)	**Protonix** (pantoprazole sodium)	**Levothyroxine** (levothyroxine sodium)	**Apriso** (mesalamine)
Dose	40 mg tablet	1 g powder - reconstitute	40 mg powder - reconstitute	88 mcg tablet	800 mg capsule
Frequency	Daily with breakfast	Every 24 hours	Two times daily	Every morning before breakfast	Three times daily
Route	Oral	Intravenous push	Intravenous push	Oral	Oral

Classification	Pharmacological: Glucocorticoid Therapeutic: Immunosuppressant/anti-inflammatory (Jones & Bartlett Learning, 2023).	Pharmacological: Third generation cephalosporin Therapeutic: Antibiotic (Jones & Bartlett Learning, 2023).	Pharmacological: Proton pump inhibitor Therapeutic: Antiulcer, Decrease stomach acid (Jones & Bartlett Learning, 2023).	Pharmacological: Synthetic thyroxine Therapeutic: Thyroid hormone replacement (Jones & Bartlett Learning, 2023).	Pharmacological: Aminosalicylate Therapeutic: Anti-inflammatory (Jones & Bartlett Learning, 2023).
Mechanism of Action	Binds to glucocorticoid receptors and suppresses inflammatory response (Jones & Bartlett Learning, 2023).	Interfere with cell wall synthesis and inhibit peptidoglycan (Jones & Bartlett Learning, 2023).	Interfere with gastric acid secretion by inhibiting proton pump (Jones & Bartlett Learning, 2023).	Replace thyroid hormone (Jones & Bartlett Learning, 2023).	Inhibits prostaglandins and decrease arachidonic acid metabolites (Jones & Bartlett Learning, 2023).
Reason Client Taking	Chronic ulcerative colitis (Frandsen & Pennington, 2021).	Urinary tract infection (Jones & Bartlett Learning, 2023).	Decrease stomach acid due to GI bleed (Jones & Bartlett Learning, 2023).	Hypothyroidism (Jones & Bartlett Learning, 2023).	Chronic ulcerative colitis (Frandsen & Pennington, 2021).
Contraindications (2)	Impaired hepatic/renal function Hypothyroidism (Frandsen & Pennington, 2021).	Impaired renal function Bleeding disorders (Frandsen & Pennington, 2021).	Hypercalcemia Osteoporosis due to increased risk for fractures (Frandsen & Pennington, 2021).	Cardiovascular disease, Acute myocardial infarction Hyperthyroidism (Frandsen & Pennington, 2021).	Renal impairment Liver disease (Frandsen & Pennington, 2021).
Side Effects/Adverse Reactions (2)	Hypertension and Gastrointestinal bleeding (Jones & Bartlett Learning, 2023).	Anemia, leukopenia, colitis (Jones & Bartlett Learning, 2023).	Hyperlipidemia and hyponatremia (Jones & Bartlett Learning, 2023).	Hypertension and angioedema (Jones & Bartlett Learning, 2023).	Gastrointestinal bleeding and anemia (Jones & Bartlett Learning, 2023).
Nursing Considerations (2)	Monitor for signs and symptoms of increased blood pressure Administer with food (Jones & Bartlett Learning, 2023).	Monitor for allergic reaction Monitor BUN and creatinine (Jones & Bartlett Learning, 2023).	Monitor for bone fractures Monitor electrolytes (Jones & Bartlett Learning, 2023).	Monitor for coronary insufficiency Monitor thyroid levels (Jones & Bartlett Learning, 2023).	Monitor for intolerance – symptoms similar to a flare up Monitor CBC (Jones & Bartlett Learning, 2023).

Medications Reference (1) (APA):

Frandsen, G. & Pennington S. S. (2021). *Abrams' clinical drug therapy: Rationales for nursing practice* (12th ed.). Wolters Kluwer.

Haleon group. (2023). *Centrum silver adults 50+ multivitamins.* Haleon group. https://www.centrum.com/products/multivitamins/centrum-silver-adults-50-plus/?maas=maas_adg_58DE7E23840097736B9A0E72E66B783B_afap_abs&ref_=aa_maas&tag=maas&gad_source=1&gclid=CjwKCAiAi6uvBhADEiwAWiyRdrDEE5i53g7EChSVyuo1ktx7OFrRdXVu-8hgrg1CDhH4cqFykE6R-xoCwTUQAvD_BwE&gclsrc=aw.ds

Jones & Bartlett Learning. (2023). *NDH: Nurse's drug handbook.* Jones & Bartlett Learning.

National Institute of Health - Office of Dietary Supplements. (2024, February 15). *Multivitamin/mineral supplements.* National Institutes of Health. https://ods.od.nih.gov/factsheets/MVMS-HealthProfessional/

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** Alert **Orientation:** Oriented x3 **Distress:** None **Overall appearance:** Well-groomed and appropriate	The client is alert and oriented x3, person, place, and time at the time of assessment. She did not appear to be in distress, and her appearance was well-groomed and appropriate for the situation.
INTEGUMENTARY: **Skin color:** Fair-white **Character:** Fragile and thin **Temperature:** Warm **Turgor:** Normal return **Rashes:** None **Bruises:** Yes **Wounds:** Yes **Braden Score:** 16 **Drains present:** **Y**☐ **N** ☒ **Type:**	Skin color is usual for ethnicity: fair-white, with some purple ecchymoses noted on the external surfaces of her arms and legs, consistent with fragile and thin dermal tissue. Coban-wrapped dressing was noted on the right forearm and right lower extremity. The client stated that the wound on the right forearm was from a skin tear, and the wound on the right lower extremity was from an ulcer. Dressing changes were scheduled later, so wounds could not be assessed at the time of assessment. Skin is dry and warm to the touch,

	and skin turgor returns normally. The client has an IV in the left distal forearm, which is clean, dry, and intact. The client is at mild risk for pressure ulcer with a Braden score of 16.
HEENT: **Head/Neck:** Symmetrical **Ears:** Symmetrical, no lesions or drainage **Eyes:** PERRLA, no lesions or drainage **Nose:** Septum midline, no lesions or drainage **Teeth:** Few teeth missing	The head and neck are symmetrical, and the trachea is midline. Thyroid and lymph nodes are not palpable and non-tender. Carotid pulses palpable 2+ bilaterally. Sclerae are white, corneas clear, and conjunctiva pink bilaterally. No drainage or lesions were noted in the eyes. PERRLA bilaterally. The septum is midline; no drainage, lesions, or bleeding was noted. Bilateral ears are symmetrical with no lesions or drainage. The client's lips were pink and intact. The oral mucosa is moist, pink, and intact, and a few teeth are missing.
CARDIOVASCULAR: **Heart sounds:** Auscultated clear S1 and S2 **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** Palpable **Capillary refill:** Less than 3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	Clear S1 and S2 sounds with no murmur or gallops. Normal rate and rhythm. Peripheral pulses are palpable +2 bilaterally in all extremities, and capillary refill was less than 3 seconds. No edema is noted in any of the extremities, and no neck vein distention.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Rate and rhythm are normal. Respirations are symmetrical. Lung sounds are clear bilaterally anteriorly; posterior lung sounds were not auscultated due to not wanting to move the patient due to pain in the right hip, and no crackles, rhonchi, or wheezing were heard.
GASTROINTESTINAL: **Diet at home:** General **Current Diet:** NPO/Clear liquids after colonoscopy **Height:** 152.4 cm **Weight:** 45.7kg **Auscultation Bowel sounds:** Noted **Last BM:** 03/04/2024 **Palpation: Pain, Mass etc.:** None **Inspection:** Noted **Distention:** None **Incisions:** None	Bowel sounds were normoactive. The abdomen is soft and non-tender upon palpation, and no masses were palpated. The client eats a regular diet at home but has recently had poor nutritional intake.

Scars: None **Drains:** None **Wounds:** None **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color:** Unable to be assessed **Character:** Unable to be assessed **Quantity of urine:** Incontinent x1 **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** Not assessed **Catheter: Y ☐ N ☒** **Type:** **Size:**	The client is incontinent due to weakness and pain during movement in the right hip. The client's urine could not be assessed for color and character at the time of assessment. When asked if there was any pain, urgency, or burning with urination, the client stated that she was currently not experiencing any but had experienced some urgency and burning before she came to the emergency room.
MUSCULOSKELETAL: **Neurovascular status:** Hypertension, hyperlipidemia **ROM:** Active; pain when moving right hip **Supportive devices:** Walker **Strength:** Normal and equal **ADL Assistance: Y☒** currently at hospital **N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** 93 **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☒** **Needs support to stand and walk ☐**	The client has an active, full range of motion bilaterally except in the right hip and pain when moving. The client has been experiencing generalized weakness from anemia. Hand grips and pedal pushes were equal. The client requires one person to assist with ambulation. The client uses a walker; however, she states she does not use it all the time when walking. Gait could not be assessed at the time of assessment. The client has hypertension and hyperlipidemia. The client is a fall risk with a fall score of 93.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** Noted **Mental Status:** Noted **Speech:** Clear **Sensory:** Normal **LOC:** Alert and responsive	The client is alert and responsive. At the time of assessment, she was oriented to person, place, and time. Her speech is clear. She can follow commands, and her memory is intact. MAEW and PERRLA were present. Strength is equal in both the hands and feet.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** Sons and daughter	The client lives alone, but her sons and daughter visit her daily in the morning and assist with her

Developmental level: Integrity vs. Despair **Religion & what it means to pt.:** Nonreligious **Personal/Family Data (Think about home environment, family structure, and available family support):** Sons and daughter	needs and transportation. The client stated she does not consider herself "very religious" and does not currently attend any religious practices.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0726	68	190/71	20	97, temporal	95%, room air
1200	64	164/76	16	96.8, temporal	95%, nasal cannula on 2 liters

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0930	0 – 10 numeric scale	Right hip	2 at rest, 4 with movement	"Constant throbbing, sometimes sharp, hurts when I move it"	Adjust position in bed
1200	0 – 10 numeric scale	Right hip	2 at rest, 4 with movement	"Stills hurts when I move it, it hurt when they were moving me from the bed."	Adjust position and move client only when necessary

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22 gauge **Location of IV:** Left distal forearm **Date on IV:** 03/01/2024 **Patency of IV:** Patent, normal **Signs of erythema, drainage, etc.:** None	Saline lock

IV dressing assessment: Clean, dry, and intact; wrapped in Coban	

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
1000: 10 mL Protonix 1045: 250 mL Lactated ringers	0000 – 0345: Bowel movement x4; Incontinent of urine x1 void 1000 – 50 mL of urine

Nursing Care

Summary of Care (2 points)

Overview of care: This student nurse arrived at the unit in the morning and introduced themselves to the client. The student nurse removed the client's medications from the pyxis with assistance from the client's nurse. However, the client was currently NPO due to a colonoscopy scheduled at 1030 that morning. The client's nurse stated the medications would need to be held but wanted to check with surgery whether the client should receive her dose of Protonix and take Metoprolol due to her blood pressure being 190/71 that morning. Surgery confirmed the client should receive both, and this student nurse administered 40 mg of Protonix intravenously and 25 mg of Metoprolol orally under the supervision of the client's nurse. The client needed to urinate before being transported to surgery, so this student nurse assisted the client's nurse in helping the client onto a bedpan. This student nurse also assisted in changing the client's incontinence brief. The student nurse then assisted transport with transferring the client onto the transport bed to go to surgery for her colonoscopy. The client returned to the unit from the colonoscopy at 1200, and this student nurse assisted with obtaining vitals. Lastly, this student nurse reported to the client's nurse and thanked her for allowing this student to assist in the care of the patient.

Procedures/testing done: The client had a colonoscopy done at 1030.

Complaints/Issues: The client had no complaints or issues at this time.

Vital signs (stable/unstable): The client's vital signs were stable; however, her blood pressure was slightly elevated.

Tolerating diet, activity, etc.: The client tolerated NPO diet and had slight pain with movement in the right hip.

Physician notifications: N/A

Future plans for client: Provide pain relief for right hip and repeat bowel prep to perform another colonoscopy the following day to stop bleeding, return to NPO status at midnight.

Discharge Planning (2 points)

Discharge location: Home with her son

Home health needs (if applicable): Plans for home health for nurse care and physical therapy

Equipment needs (if applicable): The client should use her walker for ambulation more consistently.

Follow-up plan: Possibly meet with the general surgeon regarding GI bleed and with a gastroenterologist to help with the management of chronic ulcerative colitis. Also, with a nutritionist due to the client's recent poor nutritional intake.

Education needs: Education on proper use of walkers, prevention of UTIs, and diet.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	**Rationale**	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation**
• Include full nursing diagnosis	• Explain why the			• How did the client/family

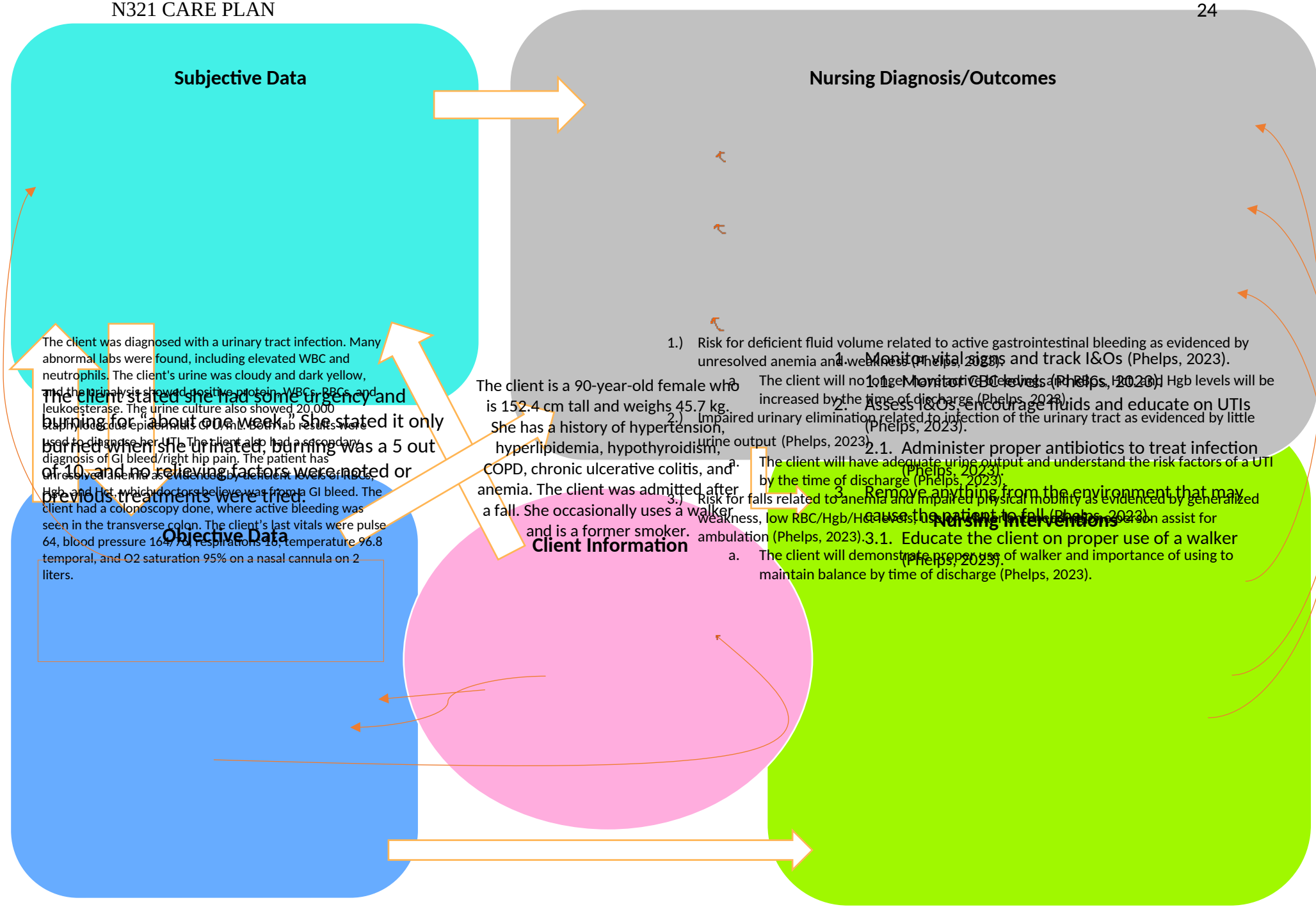
with “related to” and “as evidenced by” components • Listed in order by priority – highest priority to lowest priority pertinent to this client	nursing diagnosis was chosen			respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for deficient fluid volume related to active gastrointestinal bleeding as evidenced by unresolved anemia and weakness (Phelps, 2023).	The client has had unresolved anemia and the doctor suspected a gastrointestinal bleed. Colonoscopy done to confirm.	**1.** Monitor vital signs and track I&Os (Phelps, 2023). **2.**Monitor CBC levels (Phelps, 2023).	**1.** The client will no longer have active bleeding and RBC, Hgb, and Hct levels will have increased by time of discharge (Phelps, 2023).	The client will understand what symptoms to monitor anemia. The client will also be educated on GI bleeds and causes (one possible cause can be due to her ulcerative colitis).
2. Impaired urinary elimination related to infection of the urinary tract as evidenced by little urine output (Phelps, 2023).	The client was diagnosed with a urinary tract infection.	**1.** Assess I&Os, encourage fluids, educate on UTIs (Phelps, 2023). **2.** Administer appropriate antibiotics to treat infection (Phelps, 2023).	**1.** The client will have adequate urine output by time of discharge (Phelps, 2023).	The client will understand the symptoms and risk factors of a UTI.
3. Risk for fall related to anemia and impaired physical mobility as evidenced by generalized	The client has unresolved anemia, which causes her to be weak, and the client also was admitted after a fall despite use of	**1.** Remove anything in the environment that may cause the client to fall (Phelps, 2023).	**1.** The client will demonstrate the proper use of a walker before discharge (Phelps, 2023).	The client will understand the proper use of a walker and the importance of utilizing it properly to help maintain her balance.

weakness, low RBCs/Hgb/Hct levels, use of walker and needing a one person assist for ambulation while in hospital (Phelps, 2023).	walker.	**2.** Educate the client on the proper use of a walker (Phelps, 2023).		

Other References (APA):

Phelps, L. L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer.

Concept Map (20 Points):


Subjective Data
The client stated she had some urgency and burning for "about one week." She stated it only burned when she urinated, burning was a 5 out of 10, and no relieving factors were noted or previous treatments were tried.
Objective Data
The client was diagnosed with a urinary tract infection. Many abnormal labs were found, including elevated WBC and neutrophils. The client's urine was cloudy and dark yellow, and the urinalysis showed positive protein, WBCs, RBCs, and leukoesterase. The urine culture also showed 20,000 staphylococcus epidermalis CFU/mL. Both lab results were used to diagnose her UTI. The client also had a secondary diagnosis of GI bleed/right hip pain. The patient has unresolved anemia as evidenced by deficient levels of RBCs, Hgb, and Hct, which doctors believe was from a GI bleed. The client had a colonoscopy done, where active bleeding was seen in the transverse colon. The client's last vitals were pulse 64, blood pressure 164/70, respirations 16, temperature 96.8 temporal, and O2 saturation 95% on a nasal cannula on 2 liters.
Client Information
The client is a 90-year-old female who is 152.4 cm tall and weighs 45.7 kg. She has a history of hypertension, hyperlipidemia, hypothyroidism, COPD, chronic ulcerative colitis, and anemia. The client was admitted after a fall. She occasionally uses a walker and is a former smoker.
Nursing Diagnosis/Outcomes
1.) Risk for deficient fluid volume related to active gastrointestinal bleeding as evidenced by unresolved anemia and weakness (Phelps, 2023).
a. The client will no longer have active GI bleeding, and RBC, Hct, and Hgb levels will be increased by the time of discharge (Phelps, 2023).
2.) Impaired urinary elimination related to infection of the urinary tract as evidenced by little urine output (Phelps, 2023).
a. The client will have adequate urine output and understand the risk factors of a UTI by the time of discharge (Phelps, 2023)
3.) Risk for falls related to anemia and impaired physical mobility as evidenced by generalized weakness, low RBC/Hgb/Hct levels, unsteady gait, and the need for person assist for ambulation (Phelps, 2023).
a. The client will demonstrate proper use of walker and importance of using to maintain balance by time of discharge (Phelps, 2023).
Nursing Interventions
1. Monitor vital signs and track I&Os (Phelps, 2023).
1.1. Monitor CBC levels (Phelps, 2023).
2. Assess I&Os, encourage fluids and educate on UTIs (Phelps, 2023).
2.1. Administer proper antibiotics to treat infection (Phelps, 2023).
3. Remove anything from the environment that may cause the patient to fall (Phelps, 2023).
3.1. Educate the client on proper use of a walker (Phelps, 2023).