N431 Care Plan #1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 08/27/2021	**Patient Initials** N.R.	**Age** 57 years old	**Gender** Female
Race/Ethnicity African American	**Occupation** Disabled	**Marital Status** Divorced	**Allergies** Aspirin, Iodinated radiocontrast dyes, and penicillin
Code Status Full code	**Height** 5’3”	**Weight** 164.9 lbs.	

Medical History (5 Points)

Past Medical History: The client has an extensive past medical history that includes abdominal pain, vomiting, abnormal liver function test, adult general medical exam, antinuclear antibody positive, anemia, ascites, asthma, arteriovenous malformation of the colon, chronic GERD, cirrhosis, coagulopathy, diabetes, hepatic encephalopathy, anxiety, esophageal varices, exostosis, gastroparesis, hypertension, heartburn, hepatitis C, depression, helicobacter pylori infection, inflammatory polyarthropathy, insomnia, liver lesions of the left lobe, neuropathy, onychodystrophy, noncompliance with medication regimen, osteoarthritis, localized osteoarthrosis of the lower leg, a suicidal attempt by drug ingestion, and upper gastrointestinal bleed.

Past Surgical History: The client has a past surgical history that includes multiple endophagogastroduodenoscopies and endoscopies. The client also has had a transjugular intrahepatic portosystemic shunt placement, a cholecystectomy, a colonoscopy, an amputation of the great right toe, an appendectomy, an esophageal variceal banding, an ovary procedure, and tubal ligation.

Family History: The client’s mother has a history of heart disease, and the client’s sister has a history of kidney disease.

Social History (tobacco/alcohol/drugs): The client reports being a former smoker but quit more than 30 days ago. The client did not report how long or how much she previously smoked. The client also reports that they drink a pint of vodka a day, four to six cans of beer a day, currently smokes marijuana, and used to use cocaine.

Assistive Devices: The client has a wheelchair but does not use it. The client walks with a gait belt and one assist.

Living Situation: The client lives at home with her mom as the primary caregiver.

Education Level: The client has a high school diploma.

Admission Assessment

Chief Complaint (2 points): Routine paracentesis

History of present Illness (10 points):

History of present Illness (10 points): Onset: On August 27th, a 57 y/o African American, divorced, female, came into the emergency department for routine paracentesis at Union Hospital. The patient states that she comes into the emergency department every month fo a paracentesis. The patient had lab work completed and it showed a hemoglobin level of 6.3, so the patient was admitted for a blood transfusion to assist with the anemia. **Location**: Patient is experiencing excess fluid volume in the abdomen. **Duration:** The patient has come in routinely to the emergency department every month for a paracentesis. The patient does not state how long she has been coming in to receive a paracentesis. **Characteristics:** The patient denied any fever, chills, pain, or shortness of breath. **Associated and Aggravated Manifestations:** The patient did not state any associated or aggravated manifestations. **Relieving factors:** The patient takes acetaminophen for mild to moderate pain. **Treatment and Timing:** The patient had a

paracentesis about one month prior to today's visit. The patient also takes furosemide to help get rid of the excess fluid buildup in the abdomen. Severity: The patient reports no pain currently.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Anemia

Secondary Diagnosis (if applicable):.

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

The patient came into the emergency department at Union Hospital for a routine paracentesis. Upon inspection, the client was found to have a red blood cell count of 2.11, a hemoglobin level of 6.3, a hematocrit level of 19.66%, and a platelet count of 134,000. The patient was primarily diagnosed with anemia and admitted for a blood transfusion. The client received two bags of packed red blood cells and was monitored closely.

Anemia is a disorder where you do not have enough healthy red blood cells in your body to adequately deliver oxygen to your tissues (Mayo Clinic, 2021). Anemia can be caused by your body not making enough red blood cells or by destroying red blood cells (Mayo Clinic, 2021). Common symptoms of anemia include fatigue, weakness, pale or yellowish skin, irregular heartbeats, shortness of breath, dizziness, chest pain, cold hands, and feet, or headaches (Mayo Clinic, 2021). The patient denied having any of these symptoms during the initial assessment. Therefore, the red blood cell count and hemoglobin level is what primarily gave away the anemia diagnosis.

Anemia has many risk factors that can place a person at risks, such as a diet lacking the proper vitamins and minerals, menstruation, intestinal disorders, pregnancy, chronic conditions, family history, and age (Mayo Clinic, 2021). This patient was most at risk due to her chronic conditions. The patient had cirrhosis of the liver and hepatic encephalopathy. Chronic anemia is

common in those with liver disease (Capriotti & Frizzell, 2016). The liver stores iron in the form of ferritin, which the liver releases so the body can make new healthy red blood cells (Capriotti & Frizzell, 2021). Furthermore, if the liver is damaged, it is not working well and is unable to release that ferritin causing a decrease in the amount of healthy red blood cells in a person's body (Capriotti & Frizzell, 2016). This then leads to the progression of anemia.

Anemia should not be left untreated because it can cause complications. These complications include extreme fatigue, pregnancy complications, heart problems, and even death (Mayo Clinic, 2021). To diagnose anemia, the physician will want to get a complete history and physical examination. The physician may also want to get a complete blood count to determine your hemoglobin levels, hematocrit levels, and how many red blood cells are in your body (Mayo Clinic, 2021). This patient had a complete blood count that helped conclude the anemia diagnosis.

Treatment of anemia can vary depending on the type and cause of the anemia. Treatment can involve iron supplements, folic acid, vitamin C supplements, blood transfusions, bone marrow transplantations, chemotherapy, oxygen therapy, intravenous fluids, and pain relievers. My patient was taking folic acid daily, had two units of packed red blood cells, and had acetaminophen and hydrocodone for pain medication as needed. The client's hemoglobin level had increased to 7.5 but was still decreased. At the time, the physician had no plans of any more blood transfusions but was hoping that once the patient continued with her folic acid and got the liver disease back under control, the patient's body would be able to continue working in a more normal manner allowing her labs to normalize.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Human Pathophysiology*. F.A. Davis Company.

Mayo Clinic. (2021c, September 8). *Anemia - Symptoms and causes*.

https://www.mayoclinic.org/diseases-conditions/anemia/symptoms-causes/syc-20351360

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	4-5.5 million cells	2.11 million cells	2.33 million cells	RBCs are decreased due to the patient's anemia (Capriotti & Frizzell, 2016).
Hgb	12-15 g/dL	6.3 g/dL	7.5 g/dL	Hemoglobin is decreased due to the patient's anemia (Capriotti & Frizzell, 2016).
Hct	42% to 52%	19.6%	22.1%	Hematocrit is decreased due to the insufficient supply of healthy red blood cells (Capriotti & Frizzell, 2016).
Platelets	150,000 – 400,000 cells/mm3	134,000 cells/mm3	165,000 cells/mm 3	Platelets are decreased due to the patient's anemia (Capriotti & Frizzell, 2016).
WBC	4,500 – 11,000 cells/mm3	5.2 cells/mm3	5.0 cells/ mm3	N/A
Neutrophils	45% to 75%	47.8%	54.2%	N/A
Lymphocytes	20% to 40%	27.6%	17.5%	These values are consistent with an inflammatory condition such as the patient's liver disease (Capriotti & Frizzell, 2016).
Monocytes	4% to 6%	19.7%	24.5%	These values are consistent with the patient's uncontrolled liver disease (Capriotti & Frizzell, 2016).
Eosinophils	Less than 7%	3.3%	2.8%	N/A
Bands	0.0% - 1.0%	0%	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-	135 – 145 mEq/L	137 mEq/L	135 mEq/L	N/A
K+	3.5 – 5.0 mEq/L	3.79 mEq/ L	4.59 mEq/L	N/A
Cl-	98 – 108 mEq/L	109 mEq/L	101 mEq/L	Elevated chloride indicates that the patient is dehydrated (Capriotti & Frizzell, 2016).
CO2	22 -29 mEq/ L	19.5 mEq/ L	26.3 mEq/L	CO2 levels are elevated due to the client's anemia (Capriotti & Frizzell, 2016).
Glucose	70-100 mg/dL	131 mg/dL	120 mg/ dL	Blood sugar likely elevated due to the body's trauma response (Capriotti & Frizzell, 2016).
BUN	8 – 25 mg/dL	6 mg/dL	20 mg/dL	Bun is slightly decreased due to malnutrition (Capriotti & Frizzell, 2016).
Creatinine	0.6 – 1.3 mg/dL	0.69 mg/dL	1.42 mg/dL	Elevated creatinine is consistent with the patient's cirrhosis of the liver (Capriotti & Frizzell, 2016).
Albumin	3.5 – 5.2 gm/dL	1.7 gm/dL	3.1 gm/ dL	Albumin levels slightly decreased due to cirrhosis of the liver (Capriotti & Frizzell, 2016).
Calcium	8.6 – 10 mg/ dL	7.7 mg/dL	8.6 mg/ dL	Calcium levels are decreased because of the patient's liver disease (Capriotii & Frizzell, 2016).
Mag	1.6 – 2.6 mg/dL	1.2 mg/dL	2.2 mg/ dL	Magneisum is decreased due to the patient's liver disease (Capriotti & Frizzell, 2016).
Phosphate	2.5 – 4.5 mg/dL	2.0 mg/dL	3.1 mg/ dL	Phosphate is decreased due to liver failure (Capriotti & Frizzell, 2016).
Bilirubin	Less than 1.5 mg/dL	1.3 mg/dL	2.4 mg/ dL	Elevated bilirubin is consistent with the patient's liver damage (Capriotti & Frizzell, 2016).
Alk Phos	20 – 140 U/ L	119 U/L	67 U/L	N/A
AST	10 – 30 units/L	125 units/L	30 units/L	Elevated AST levels are consistent with the patient's liver damage (Capriotti & Frizzell, 2016).
ALT	10 – 40 units/L	30 units/L	10 units/L	N/A

Amylase	40-140 U/L	N/A	N/A	N/A
Lipase	Younger than 60 is 10 to 140 U/L Older than 60 is 24 to 151 U/L	N/A	N/A	N/A
Lactic Acid	4.5-19.8 mg/dL	N/A	N/A	N/A
Troponin	0-0.04 ng/mL	N/A	N/A	N/A
CK-MB	5-25 IU/L	N/A	N/A	N/A
Total CK	22-198 U/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	1 second	1.8 seconds	1.7 seconds	These values could indicate that the client's blood clots more slowly than desired (Capriotti & Frizzell, 2016).
PT	9.5 – 11.3 seconds	18.6 seconds	18.1 seconds	These values could indicate that the client's blood clots more slowly than desired (Capriotti & Frizzell, 2016).
PTT	30 – 40 seconds	35.3 seconds	52.7 seconds	These values indicate that the client lacks or has a low level of one of the factors that clots the blood (Capriotti & Frizzell, 2016).
D-Dimer	Less than or equal to 250 ng/mL	N/A	N/A	N/A
BNP	15.00 – 99.90 pg/mL	N/A	N/A	N/A
HDL	More than 60 mg/dL	N/A	N/A	N/A
LDL	Less than 130 mg/dL	N/A	N/A	N/A
Cholesterol	Less than	N/A	N/A	N/A

	200 mg/dL			
Triglycerides	Less than 150 mg/dL	N/A	N/A	N/A
Hgb A1c	Less than 7%	N/A	4.4%	N/A
TSH	0.4 – 4.0 mU/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	Colorless, yellow, clear	Amber, cloudy	N/A	These values could indicate that the client is dehydrated (Capriotti & Frizzell, 2016).
pH	4.5 - 8	5.0	N/A	N/A
Specific Gravity	1.005 – 1.035	1.023	N/A	N/A
Glucose	Negative	Negative	N/A	N/A
Protein	Negative	1+	N/A	These values can indicate that the client's kidneys are not working as well as they should be (Capriotti & Frizzell, 2016).
Ketones	Negative	Negative	N/A	N/A
WBC	Negative	> 50	N/A	These values can indicate that the client's kidneys are not working as well as they should be (Capriotti & Frizzell, 2016).
RBC	Negative	21 - 50	N/A	These values indicate that there is blood in the urine (Capriotti and Frizzell, 2016).
Leukoesterase	Negative	3+	N/A	These values are consistent with the white blood cells that were found in the urine (Capriotti & Frizzell, 2016)

Arterial Blood Gas 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

pH	7.35 to 7.45	N/A	N/A	N/A
PaO2	80-100	N/A	N/A	N/A
PaCO2	35-45	N/A	N/A	N/A
HCO3	22-26	N/A	N/A	N/A
SaO2	95%-100%	100% room air	98% room air	N/A

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	Clean catch, no growth	No growth at 1:1	N/A	N/A
Blood Culture	No growth after 3 days	Gram stain + organism (Corynebacterium species)	No growth after 5 days	The blood culture indicated that the client has Corynebacterium species in the blood.
Sputum Culture	Negative results showing no harmful bacteria	N/A	N/A	N/A
Stool Culture	Negative results showing no abnormal bacteria or other organism	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Human Pathophysiology*. F.A. Davis Company.

Crnp, H. B. M. R., Palm, M. L., & Md, L. B. S. (2016). *Bates' Nursing Guide to Physical Examination and History Taking* (2nd ed.). LWW.

Kee, J.L.F. (2017). *Pearson handbook of laboratory & diagnostic tests with nursing implications.* Pearson.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

- XR of the right foot
    - This x-ray was completed to assess the site after the amputation of the great right toe. The x-ray showed fragmentation of the distal phalanx of the second toe most likely related to post-surgical change. The x-ray also showed soft tissue swelling where the amputation occurred. Overall, the amputation looked to be healing with no issues.
- US guided abdominal paracentesis
    - This paracentesis was performed to remove excess fluid out of the abdomen related to the patient's ascites. Before the procedure a sonographic image was taken of all four quadrants to confirm the presence of ascites. The target area selected was the right lower quadrant. A needle was placed into the targeted area and into the peritoneal cavity where 800 mL of cloudy yellow ascites was collected and sent to the lab. The site was cleaned, and appropriate bandaging was applied. The patient tolerated the procedure well.
- IR central venous catheter placement tunnel US Guided
    - The patient had the abdominal pleurx catheter put into place on 09/13/2021 and had it fixed on 09/21/2021. The abdominal pleurx catheter was placed to remove excess fluid from the abdomen due to the ascites. The drainage system kept leaking and was therefore resecured on 09/21/2021. The procedure was performed

by placing peel away sheath in the peritoneal cavity. Then, the pleurx drainage catheter was tunneled through the peel away sheath and into the abdominal cavity directly towards the pelvis. An x-ray was completed to confirm the placement and the peel away sheath was removed. The patient was closed with 4-0 absorbable suture followed by glue. The drainage catheter removed 2600 mL of ascites fluid. The patient tolerated the procedure and re-securement well.

Diagnostic Test Correlation (5 points):

The client came into the emergency department at Union Hospital for a routine paracentesis. The client was found to have a hemoglobin level of 6.3, so the patient was admitted for anemia requiring transfusion. The client had an amputation of the great right toe just a few days prior to coming in. Therefore, the client was admitted and had a full work up done to ensure there was no other problems going on with the patient. Once the work up was done that's when the diagnostics were concluded to get a better understanding of the patient's ascites and liver damage.

Diagnostic Test Reference (1) (APA):

Cnrn, R. P. J. H. L., & PhD Rn, K. C. H. (2017). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing (Brunner and Suddarth's Textbook of Medical-Surgical)* (14th ed.). LWW.

Kee, J.L.F. (2017). *Pearson handbook of laboratory & diagnostic tests with nursing implications.* Pearson.

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

Home Medications (5 required)

Brand/Generic	Furosemide (Lasix)	Ondansetron hydrochloride (Zofran)	Acetaminophen (Tylenol)	Gabapentin (Gralise)	Escitalopram oxalate (Lexapro)
Dose	40mg	4mg	650 mg	100 mg	5mg
Frequency	1 tablet daily	1 disintegrating tablet q.6.h PRN	1 tablet q.4.h PRN	1 capsule TID	1 tablet daily
Route	Oral	Oral	Oral	Oral	Oral
Classification	Loop diuretic, antihypertensive, diuretic	Selective serotonin receptor antagonist, Antiemetic	Nonsalicylate, para-aminophenol derivative, antipyretic, nonopioid analgesic	1-amino-methyl cyclohexaneacetic acid, anticonvulsant	Selective serotonin reuptake inhibitor (SSRI), antidepressant

Mechanism of Action	Inhibits sodium and water reabsorption in the loop of Henle and increases urine formation. As the body's plasma volume decreases, aldosterone production increases, which promotes sodium reabsorption and the loss of potassium and hydrogen ions. Furosemide also increases the excretion of calcium, magnesium, bicarbonate, ammonium, and phosphate. By reducing intracellular and extracellular fluid volume, the drug reduces blood pressure and decreases cardiac output. Over time, cardiac output returns to normal.	Blocks serotonin receptors centrally in the chemoreceptor trigger zone and peripherally at vagal nerve terminals in the intestine. This action reduces nausea and vomiting by preventing serotonin release in the small intestine and by blocking signals to the CNS. Ondansetron may also bind to other serotonin receptors and to mu-opioid receptors.	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of prostaglandin E2.	Gabapentin is structurally like gamma-aminobutyric acid (GABA), the main inhibitory neurotransmitter in the brain. Although gabapentin's exact mechanism of action is unknown, GABA inhibits the rapid firing of neurons associated with seizures. It also may prevent exaggerated responses to painful stimuli and pain-related responses to a normally innocuous stimulus to account for its effectiveness in relieving postherpetic neuralgia and restless leg syndrome symptoms.	Inhibits reuptake of the neurotransmitter serotonin by CNS neurons, thereby increasing the amount of serotonin available in nerve synapses. An elevated serotonin level may result in elevated mood and reduced anxiety or depression.
Reason Client Taking	This medication is being given to the client to reduce fluid buildup related to the patient's ascites.	This medication is being taken for nausea and vomiting.	This medication is being given to the client to relieve mild to moderate pain.	This medication is being given to the client to treat nerve pain.	This medication is being given to the client to treat generalized anxiety disorder and depression.

Contraindications (2)	Anuria, hypersensitivity to furosemide or its components	Concomitant use of apomorphine, hypersensitivity to ondansetron or its components	Severe hepatic impairment, severe active liver disease	Suicidal thoughts, hypersensitivity	Hypersensitivity to escitalopram, citalopram, or its components; use within 14 days of MAO inhibitor therapy
Side Effects/Adverse Reactions (2)	Arrhythmias, thromboembolism	Hypotension, serotonin syndrome	Agitation, fatigue	Hypoglycemia, hepatitis	Seizures, GI bleeding or hemorrhage
Nursing Considerations (2)	1. Obtain patient's weight periodically to monitor fluid loss. 2. Monitor patient for hypokalemia.	1. Monitor client closely for serotonin syndrome. 2. Monitor client closely for hypersensitivity to ondansetron because hypersensitivity reactions, including anaphylaxis and bronchospasms may occur.	1. Use acetaminophen cautiously in clients with hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypovolemia, or severe renal impairment. 2. Acetaminophen can cause hepatotoxicity, so liver function tests need to be ordered and monitored.	1. The capsules can be opened and mixed with applesauce or other soft foods before administration. 2. Monitor patient closely for suicidal thinking or behavior.	1. Watch for signs of abuse or misuse; drugs potential for physical and psychological dependence is unknown. 2. Monitor patient for hypo osmolarity of serum and urine and for hyponatremia.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Assess the patient's fluid status, weight, intake and output ratios, amount and location of edema, lung sounds, skin turgor, and mucous membranes.	Assess dizziness and drowsiness that may affect gait, balance, or other functional activities. Assess the patient's vital signs.	Assess patient's vital signs and pain level.	Assess the patient's pain by using pain scales, assess for any disturbance in gait, monitor for any seizure activity, get a baseline set of vitals, and perform a neuro exam.	Assess neurological status for any seizure activity and identification of recent mood or behavior patterns. Obtain a history of cardiac, renal, mental disorders, and blood studies to get a baseline before prescribing

					the medication.
Client Teaching needs (2)	1. Instruct the patient to take the medication at the same time each day to maintain therapeutic effects. 2. Instruct the patient to take furosemide in the morning or if multiple doses take the last dose a few hours before bed to avoid sleep disturbance from diuresis.	1. Instruct patient to place the tablet under the tongue until dissolved. 2. Advise patient to seek immediate medical attention if patient experiences persistent, severe, unusual, or worsening symptoms.	1. Caution patient to not exceed the recommended dosage amount or take any other drug containing acetaminophen at the same time. 2. Teach patient to recognize signs of hepatotoxicity such as bleeding, easy bruising, and malaise.	1. Instruct patient to not take an antacid within 2 hours of taking gabapentin. 2. Caution patient to not stop drug abruptly.	1. Inform the patient that alcohol use is not recommended while taking this medication because it may decrease the ability to think clearly and perform motor skills. 2. Warn patient to not stop taking the drug abruptly and to gradually taper off to avoid withdrawal symptoms.

Hospital Medications (5 required)

Brand/Generic	Levetiracetam (Keppra)	Enoxaparin sodium (Lovenox)	Pantoprazole sodium (Pantoloc (CAN))	Propranolol hydrochloride (Detensol (CAN))	Folic acid (Folate, vitamin B9)
Dose	500mg	40mg	40mg	10mg	1mg
Frequency	1 tablet BID	Once a day at bedtime	1 delayed release tablet BID	½ tablet BID	1 tablet daily
Route	Oral	Subcutaneous	Oral	Oral	Oral
Classification	Pyrrolidine derivative, anticonvulsant	Low-molecular weight heparin, anticoagulant	Proton pump inhibitor, antiulcer	Beta-adrenergic blocker, antianginal, antihypertensive	Vitamin, water-soluble
Mechanism of Action	May protect against secondary generalized seizure activity by preventing coordination of epileptiform burst firing. Keppra does not seem to	Potentiates the action of antithrombin II, a coagulation inhibitor. By binding with antithrombin II, enoxaparin rapidly binds with	Interferes with gastric acid secretions by inhibiting the hydrogen-potassium-adenosine triphosphatase enzyme system,	Through beta blocking action propranolol can prevent arterial dilation and inhibits renin secretion, resulting in decreased blood	Folic acid stimulates the production of red blood cells, white blood cells, and platelets

	involve inhibitory and excitatory neurotransmission.	and inactivates clotting factors (primarily factor Xa and thrombin). Without thrombin, fibrinogen can't convert to fibrin and clots can't form	or proton pump, in gastric parietal cells.	pressure and relief of migraine headaches, decreases heart rate, which helps resolve tachyarrhythmias, improves myocardial contractility, which helps ease symptoms of hypertrophic cardiomyopathy, decreases myocardial oxygen demand, which helps prevent anginal pain and death of myocardial tissue, and peripheral beta adrenergic blockade may play a role in propranolol's ability to alleviate tremor.	from those who suffer from certain megaloblastic anemias. It helps the body produce and maintain new cells.
Reason Client Taking	This medication is being given to treat seizures.	This medication is being taken to prevent the formation of clots.	This medication is being taken to treat GERD.	This medication is being given to treat hypertension.	This medication is being given to treat anemia.
Contraindications (2)	Hypersensitivity to Keppra or its components, depression	Active major bleeding, history of heparin induced thrombocytopenia or immune-mediated HIT within the past 100 days or in the presence of circulating	hypersensitivity to pantoprazole, hypomagnesemia	Cardiogenic shock, asthma	Renal disease, pernicious anemia

		antibodies which may persist for several years			
Side Effects/Adverse Reactions (2)	Hypotension, suicidal ideation	Hemorrhage, pulmonary edema	Hepatic failure, hepatitis	Hypotension, bradycardia	Loss of appetite, nausea
Nursing Considerations (2)	1. Monitor patient for bleeding, fever, recurrent infections, or significant weakness. 2. Monitor patient for seizure activity during therapy and implement seizure precautions.	1. Watch for client taking NSAIDS as it can increase the risk of bleeding. 2. Do not rub the site after injection to minimize bruising.	1. Monitor PT and INR during therapy. 2. Monitor urine output because it can cause acute interstitial nephritis.	1. Monitor blood pressure, apical and radial pulses, fluid intake and output, respirations, and daily weight. 2. Monitor for hypoglycemia because the patient is diabetic.	1. Monitor RBC, Hct, and Hgb levels. 2. Monitor the patient for any signs of hypersensitivity to the drug.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Assess the patient's vital signs, neurological function, when the last time the patient had a seizure, and for any mood disorders.	Assess the patient's INR, PT, aPTT, and vital signs.	Assess the patient's PT, INR, vital signs, glucose, and perform an abdominal assessment.	Assess the patient's vital signs, fluid intake and output, weight, apical and radial pulses, circulation in all extremities, and blood glucose levels.	A CBC, Hgb, Hct, serum folate levels, vitamin B12 levels, and schilling test should all be performed before administration. Also, assess the patient's vital signs.
Client Teaching needs (2)	1. Caution patient that it may cause dizziness and drowsiness. 2. Caution patient to not stop taking abruptly to reduce the risk of a breakthrough seizure.	1. Review safe handling of needles and the proper disposal after using the needles. 2. Inform patient they may bruise more easily and/or bleed more	1. Advise patient to take bleeding precautions. 2. Instruct patient to swallow tablet whole and do not exceed the dosage or take for longer than	1. Instruct the patient to take at the same time every day. 2. Instruct patient to check blood glucose levels regularly.	1. Take the medication at the same time every day. 2. Report any signs of a rash, difficulty breathing,

		easily.	prescribed.		or pain.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2019). *2019 Nurse's drug handbook.* Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The client appeared to be in no discomfort or pain. A & O x 1 Orientated to self. Not orientated to time, place, or current events. Client appears overall content with no signs of discomfort or distress at the time of assessment.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☒ N ☐** **Type:**	 Skin color normal for race. Appeared hydrated and clean. Warm Normal turgor 2+ No rashes or bruises noted. The patient had a surgical incision from an amputation of the big toe on the right foot. The patient had a diabetic neuropathic ulcer on the big left toe. 11 Abdominal pleurx catheter for ascites
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck symmetrical, no bumps or lesions noted. Ears are free of discharge, no bumps or lesions noted. Eyes abnormal. Upon inspection sclera was yellow, cornea was clear, conjunctiva was white with some buildup on the eyelids. Septum was midline with no drainage or bleeding noted. The client had dentures but did not have them in. .
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:**	S1 and S2 heart sounds are normal with no murmurs or gallops present. Pulse was 68 bpm radial Capillary refill was between 3 and 4 seconds

Capillary refill: **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☒ N ☐** **Location of Edema:**	Lower legs had some moderate edema consistent with the patient's excess fluid due to her ascites and liver damage.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Client has good lung sounds with some crackles present. No rhonchi or wheezes present. Respirations were nonlabored.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	Regular diet at home 50g low fat diet at hospital 164.9 lbs. Bowel sounds hypoactive 1 day ago Client reported no abdominal pain. Upon inspection, the client had a pleurx catheter in the abdomen. The drainage system looked clean with no outside drainage or redness present.
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	The client had amber colored urine and voided 200 mL while I was there. The genitals looked clean with no redness or irritation present.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐**	The patient's neurovascular status was diminished. The patient was A & O x1. The patient was only orientated to herself. Rom was good in all extremities. No supportive devices are needed although the patient does have a wheelchair. The patient was a one assist with a gait belt when ambulating.

Fall Score: **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☒	55
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Moves both arms and legs well bilaterally. Oriented to person only. Impaired mental status with concentration difficulties. Glasses present. Alert and oriented x1
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Patient did not specify a religion. The patient did not note any coping mechanisms. The patient is disabled and has a low developmental level. The patient did not respond to my questions today unless they were simple close ended questions. The patient is divorced and has a daughter that she is not in touch with. The patient lives at home with her mom as the primary decision maker and caregiver. The patient's mom is a good support system for her but that is all she has.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0730	74 radial	101/62 left arm	16	98.4 oral	100% room air
1230	68 radial	98/56 left arm	16	98.2 oral	98% room air

Vital Sign Trends: The patient's vital signs were all within normal limits besides the blood pressure. The normal blood pressure of a patient is typically around 120/80. The patient has a

history of hypertension but is given propranolol to treat the hypertension which could explain the decreased blood pressure.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	0-10	The patient reported no pain.	0/10	The patient was asked numerous times if they had any pain located anywhere and the patient denied any pain each time they were asked.	No interventions were necessary at the time for this patient.
1100	0-10	The patient reported no pain.	0/10	The patient was asked numerous times if they had any pain located anywhere and the patient denied any pain each time they were asked.	No interventions were necessary at the time for this patient.

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
	The patient had a midline in place.
Size of IV:	The size was not documented.
Location of IV:	Right upper arm
Date on IV:	09/16/2021
Patency of IV:	Patent
Signs of erythema, drainage, etc.:	No signs of erythema or drainage noted.
IV dressing assessment:	Mild blood underneath the dressing that was old and dried up. No redness or irritation was noted. Overall, site looked clean and dry.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
The patient only ate 25% of breakfast and drank roughly 120 mL of water. The patient did not each lunch during my clinical time. The patient did not have any IV fluids running at the time of my presence. Total intake – 120 mL	The patient used the bathroom once and voided 200mL of urine. Total output – 200 mL

Nursing Care

Summary of Care (2 points)

Overview of care: The patient is on room air with vital signs stable. The patient had come in for a routine paracentesis and was found to have decreased hemoglobin levels, so she was admitted for a blood transfusion to help with the anemia. The patient was given two units of packed red blood cells. The patient reported no pain while I was there. The patient was also being given folic acid at 1mg every day to help treat the anemia. The patient was steady and could walk with a gait belt and one assist. The patient sees physical therapy in the hospital to help gain some strength back before being discharged home. The patient ate 25% of their breakfast with 120 mL of water and voided 200 mL of urine during the time I was there.

Procedures/testing: The patient did not leave the floor or have any testing done while I was there.

Complaints/Issues: The patient had no issues or complaints.

Vital signs (stable/unstable): The patient's vital signs were stable. The patient has a history of hypertension but is given propranolol to treat the hypertension which could explain the decreased blood pressure.

Tolerating diet, activity, etc.: The patient is on a 50 mg low fat diet and seemed to be tolerating the diet well. The patient walked steady with a gait belt and one assist. The patient also sees physical therapy at the hospital.

Physician notifications: No notifications were presented at this time.

Future plans for patient: The patient will continue to be monitored in hopes of keeping the hemoglobin levels up. The patient's seizure activities will also be monitored. The patient will eventually be discharged home with her mother as the primary care giver.

Discharge Planning (2 points)

Discharge location: The case management noted that when the patient first arrived, they spoke about placement for skilled nursing facilities for some rehabilitation, but the most recent note stated that the mother will be taking the patient home with home health care to come help care for her.

Home health needs (if applicable): The patient has a pleurx catheter drain that will need to be cared for. The patient will also have home health care come in to assist with activities of daily living.

Equipment needs (if applicable): The patient already has a wheelchair but does not use it.

Follow up plan: The patient will follow up with the doctor one month after discharge and will have a referral for a hepatologist.

Education needs: The patient need educated on maintaining mobility, the life expectancy and what to expect with liver disease, diabetes education, and diet including low fat food options.

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for infection related to breakage in the skin as evidenced by abdominal pleurx catheter and midline.	The client had a central midline in place and an abdominal pleurx catheter to help drain the fluid due to the ascites. The catheter and incision in the abdomen are huge risk indicators for infection.	1. The abdominal pleurx drainage system should be frequently cleaned and assessed to prevent infections. 2. The patient should have a CHG bath once a day to help prevent infection.	The patient was very cooperative and allowed me to look at the abdominal pleurx catheter to assess any drainage, redness, or irritation. The tech had already completed the CHG bath. The family of the patient was not present. The patient overall responded well, and the goals were met.
2. Ineffective tissue perfusion related to the disruption of blood circulation as evidenced by low red blood cells.	The patient had anemia and a red blood cell count of 2.33 which means the body is having to work harder to get enough oxygen to the cells. As a result, the blood flow is impaired which could severely hurt the tissues within the body.	1. The patient received two units of packed red blood cells. 2. The patient was taking 1mg of folic acid daily.	The patient received the two units of blood and took the folic acid with no complaints. Overall, the goals were met.

3. Excess fluid volume related to ascites as evidenced by paracentesis.	The patient had an abdominal pleurx catheter put in place and a routine paracentesis once a month tp remove excess fluid.	1. Monitor I & O, and daily weight. 2 Assess respiratory status every four hours	The client's intake and output were monitored along with daily weights. The client also had her respiratory status assessed twice. The patient tolerated it well with no complaints. Overall, the goals were met.
4. Impaired skin integrity related to a breakage in the skin as evidenced by surgical incisions and pressure ulcers.	The patient had a surgical incision on the right foot because of the amputation of the great toe. The patient also had a pressure ulcer on the left great toe.	1. The patient's wound will be properly assessed and cleaned daily. 2. Elevate the feet to improve blood flow	The patient sat in the recliner with feet elevated and the wounds were assessed and left open to air. The patient had no complaints. Overall, the goals were met.

Other References (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. St. Louis, MO: Elsevier.

Mayo Clinic. (2020, February 29). *Bedsores (pressure ulcers) - Symptoms and causes*. https://www.mayoclinic.org/diseases-conditions/bed-sores/symptoms-causes/syc-20355893

Concept Map (20 Points):

Subjective Data

The client reports being a former smoker but quit more than 30 days ago. The client did not report how long or how much she previously smoked. The client also reports that they drink a pint of vodka a day, four to six cans of beer a day, currently smokes marijuana, and used to use cocaine.
The patient denied any fever, chills, pain, or shortness of breath.
The patient did not state any associated or aggravated manifestations.
The client reported no pain.

Nursing Diagnosis/Outcomes

1. Risk for infection related to breakage in the skin as evidenced by abdominal pleurx catheter and midline.
   - The patient was very cooperative and allowed me to look at the abdominal pleurx catheter to assess any drainage, redness, or irritation. The tech had already completed the CHG bath. The family of the patient was not present. The patient overall responded well, and the goals were met.
2. Ineffective tissue perfusion related to the disruption of blood circulation as evidenced by low red blood cells.
   - The patient received the two units of blood and took the folic acid with no complaints. Overall, the goals were met.
3. Excess fluid volume related to ascites as evidenced by paracentesis.
   - The client's intake and output were monitored along with daily weights. The client also had her respiratory status assessed twice. The patient tolerated it well with no complaints. Overall, the goals were met.
4. Impaired skin integrity related to a breakage in the skin as evidenced by surgical incisions and pressure ulcers.
   - The patient sat in the recliner with feet elevated and the wounds were assessed and left open to air. The patient had no complaints. Overall, the goals were met.

Objective Data

The patient had a hemoglobin level of 6.3, so the patient was admitted for a blood transfusion to assist with the anemia.
Patient is experiencing excess fluid volume in the abdomen.
The patient had a decreased RBC count, Hgb level, and Hct level all related to anemia.
The client was A & O x1. The client was orientated to herself.
The client received two units of packed red blood cells.

Patient Information

The patient is a 57 y/o African American, divorced, female, who came into the emergency room for a routine paracentesis. The patient has a history of hepatic encephalopathy, diabetes, ascites, cirrhosis of the liver along with many other things. The client is allergic to aspirin, penicillin, and iodinated radiocontrast dyes. The patient is 5'3" and weighs 164.9 pounds. The patient is disabled and is a full code. The patient's mother has primary care over the patient.

Nursing Interventions

1. The abdominal pleurx drainage system should be frequently cleaned and assessed to prevent infections.
2. The patient should have a CHG bath once a day to help prevent infection.

1. The patient received two units of packed red blood cells.
2. The patient was taking 1mg of folic acid daily.

1. Monitor I & O, and daily weight.
2 Assess respiratory status every four hours

1. The patient's wound will be properly assessed and cleaned daily.
2. Elevate the feet to improve blood flow