N441 Care Plan

Lakeview College of Nursing

Caite Blakeney

Demographics (3 points)

Date of Admission 10/20/22	**Client Initials** L.W.	**Age** 46	**Gender** F
Race/Ethnicity Caucasian	**Occupation** Unemployed	**Marital Status** Divorced	**Allergies** Aspirin-Hives Penicillin-Hives
Code Status FULL CODE	**Height** 5'0" 152.40 cm	**Weight** 115 lbs 52..2 kg	

Medical History (5 Points)

Past Medical History:

Subdural Hematoma, Jaundice, Liver cirrhosis, Seizures, Hepatorenal syndrome, Hypotension, Gastroesophageal reflux disease (GERD), Depression

Past Surgical History:

Upper GI endoscopy, Drainage of subdural hematoma, Cesarean section.

Family History:

Mother: Cancer, Hypertension

Maternal Grandmother: Cancer

Father: Shunt Placement, Myocardial Infarction, Hypertension

Sister: Hypertension

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use):

Tobacco: Never

Drugs: Never

Alcohol: Patient states she has not consumed any alcohol since August of 2021 when she was hospitalized for a subdural hematoma. Prior to this, the patient reports she was drinking 2-3 shots of vodka per day. The patient's mother stated she found L.W.

unresponsive in August with several “handles” of vodka surrounding her. The patient states she started drinking after the birth of her daughter 15 years ago.

Assistive Devices:

None

Living Situation:

The patient lives at home with her 16-year-old daughter. Her mother has been staying with her since her discharge from Peoria OSF in October 2022.

Education Level:

The patient has a bachelor’s degree in early childhood education.

Admission Assessment

Chief Complaint (2 points):

Altered mental status

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

The patient was brought to the emergency department the night of October 20, 2022. She was found unresponsive by her mother in her home. The patient states she hadn’t been feeling well the morning of October 20, 2022. She states she felt fatigued and weak. Upon arrival the patient was reported to be confused, jaundiced, weak, and was having seizure activity.

The patient states she was unable to do much throughout the day as activity made her feel more fatigued. The patient states in the past alcohol would make her feel better, but currently, she has not consumed alcohol since August 2021. The patient has been

previously hospitalized for complications associated with her history of alcohol use. She attended an outpatient detox program approximately 3-4 years ago.

Primary Diagnosis

Primary Diagnosis on Admission (2 points):

Hepatic Encephalopathy

Secondary Diagnosis (if applicable):

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

Hepatic encephalopathy is related to advanced liver disease. This form of encephalopathy is reversible with minimal damage if treated in a timely fashion (Ferenci, 2017). Hepatic encephalopathy is caused by declining liver function. As a result, the metabolism of ammonia is decreased (Ferenci, 2017). Hyperammonemia causes swelling of the astrocytes which in turn leads to brain edema (Ferenci, 2017). Elevated ammonia levels also inhibit the neural electrical activity of the excitatory and inhibitory postsynaptic potentials (Ferenci, 2017). Cerebral blood flow is altered due to edema (Ferenci, 2017). This triggers the release of inflammatory mediators (Ferenci, 2017). Unfortunately, cirrhosis of the liver already places the patient in a state of immunosuppression. Inflammatory mediators within the brain are released into the bloodstream, creating the potential for sepsis in the already compromised patient (Ferenci, 2017).

Signs and symptoms of hepatic encephalopathy vary from patient to patient. Many patients experience fatigue, confusion, and lethargy (Capriotti, 2020). Other signs and symptoms can include hypertonia, hyperreflexia, a positive Babinski sign, diminished deep tendon reflexes, seizure, asterixis, stupor, and even coma (Ferenci, 2017). Labs correlating with hepatic

encephalopathy include elevated liver enzymes, such as ALT, AST, bilirubin, and prothrombin levels, as well as ammonia levels (NH3) (Capriotti, 2020).

Diagnostic testing includes blood work such as a complete blood count, complete metabolism, and ammonia (Ferenci, 2017). The Glasgow Coma Scale (GCS) can also be utilized to assess the patient's level of consciousness (Ferenci, 2017). For the treatment of hepatic encephalopathy, Lactulose is the gold standard (Ferenci, 2017). Lactulose is also used as a maintenance drug to prevent remission of hepatic encephalopathy (Ferenci, 2017). Rifaximin may be used in conjunction with lactulose to help lower ammonia levels within the body (Ferenci, 2017).

L.W. arrived at the emergency room on 10/20/2022 with weakness, confusion, and lethargy. After admission, a CT was performed to assess for any signs of brain bleeds as L.W. was treated two months prior for a subdural hematoma at OSF in Peoria. An EKG was performed to assess the patient's electrical activity of her heart. The patient also had a series of blood work completed including a CBC, CMP, and ammonia, as well as a urinalysis. L.W.'s ammonia levels came back at 265 u/dL. Normal ammonia levels range from 15-45 u/dL. L.W. also had an elevated WBC. This is consistent with the patient's immunosuppression related to cirrhosis and inflammatory mediator response to edema of the brain caused by elevated ammonia levels. The patient is receiving lactulose and rifaximin, as well as IV vancomycin. Currently, the patient is alert and oriented to person, place, time, and situation. She is unable to recall being admitted to the emergency room or the day following her admission.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical*

perspectives (2nd ed.). F.A. Davis Company.

Ferenci, P. (2017). Hepatic encephalopathy. *Gastroenterology Report*, *5*(2), 138–147. https://doi.org/10.1093/gastro/gox013

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	**4-6.6 million/ cmm**	3.11 Low	2.73 Low	Decreased RBCs can be related to anemia (Pagana et al., 2020). Anemia is related to hepatic encephalopathy (Capriotti, 2020).
Hgb	**14-18 gm/dL**	11 Low	9.8 Low	Decreased hemoglobin is related to anemia and dietary deficiency (Pagana et al., 2020). The patient's anemia could be related to her diagnosis of hepatic encephalopathy.
Hct	**36-52%**	32.1 Low	28.5 Low	Decreased hematocrit is related to anemia (Pagana et al., 2020). The patient's anemia could be related to her diagnosis of hepatic encephalopathy.
Platelets	**150-450 k/cmm**	240	217	
WBC	**4.5-10.8**	24 High	15.5 High	Increased white blood cells can be related to infection, stress, and inflammation (Pagana et al., 2020). The patient is being treated with vancomycin for potential infection of an unknown source. The patient is also under stress due to hepatic encephalopathy.
Neutrophils	**55-70%**	86 High	82 High	Elevated neutrophils can be related to stress, infection, and metabolic disorders such as hepatic encephalopathy (Pagana et al., 2020).
Lymphocytes	**20-40%**	5.3 Low	7 Low	Decreased lymphocytes can be related to immunodeficiency (Pagana et al., 2020). The patient has cirrhosis which can cause cirrhosis-associated immune

				dysfunction (Capriotti, 2020).
Monocytes	**2-8%**	8	9.5 High	Monocytes can be elevated in correlation with liver disease and inflammation (Pagana et al., 2020). The patient suffers from cirrhosis.
Eosinophils	**0-6%**	0.2	1.1	
Bands	**0-10%**	0.5	0.4	

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**	127 Low	135	Low sodium levels can be related to diuretic use, dietary insufficiency, ascites, peripheral edema, and diarrhea (Pagana et al., 2020). The patient currently has all the conditions listed above and is taking Lasix. Low sodium levels can also trigger hepatic encephalopathy (Capriotti, 2020).
K+	**3.5-5 mEq/ L**	4.1	4.1	
Cl-	**98-106 mEq/L**	93 Low	107	Decreased chloride levels can be related to diuretic use and metabolic acidosis (Pagana et al., 2020). The patient is on Lasix and is receiving sodium bicarbonate.
CO2	**22-30 mEq/ L**	17 Low	18 Low	Decreased carbon dioxide levels can be related to metabolic acidosis (Pagana et al., 2020). The patient is currently being treated with sodium bicarbonate to balance out her acidosis.
Glucose	**74-106 mg/ dL**	141 High	79	Glucose levels can be elevated due to acute stress response (Pagana et al., 2020). The patient's body was under stress at the time of admittance due to hepatic encephalopathy and elevated ammonia levels.

BUN	**10-20 mg/dL**	29 High	27 High	BUN levels can be elevated due to dehydration and renal disease (Pagana et al., 2020). The patient's creatinine levels were also elevated on admission which can indicate dehydration, as well as kidney dysfunction.
Creatinine	**0.5-1.2 mg/ dL**	1.32 High	1.01	Elevated creatinine levels can be indicative of kidney dysfunction and dehydration. The patient's BUN levels were also elevated which would support both of these causes for elevation.
Albumin	**3.5-5 mg/dL**	3.3 Low	2.9 Low	Cirrhosis and acute stress can be related to low albumin levels (Pagana et al., 2020). The patient has been diagnosed with cirrhosis and is currently under stress.
Calcium	**9-10.5 mg/dL**	9.3	9.5	
Mag	**1.3-2.1 mEq/dL**	2.1	Not available	
Phosphate	**3-4.5 mg/dL**	Not available	Not available	
Total Bilirubin	**0.3-1 mg/dL**	25.8 High	21.8 High	Elevated bilirubin levels can be related to cirrhosis (Pagana et al., 2020). The patient has been diagnosed with cirrhosis.
Alk Phos	**30-120 U/L**	235 High	173 High	Elevated alkaline phosphatase levels can be related to cirrhosis (Pagana et al., 2020). The patient has been diagnosed with cirrhosis.
AST	**0-35 U/L**	91 High	117 High	Elevated AST can be related to cirrhosis (Pagana et al., 2020). The patient has been diagnosed with cirrhosis.
ALT	**7-55 U/L**	44	48	
Amylase	**60-120 U/L**	Not available	Not available	
Lipase	**0-160 U/L**	40.3	Not available	
Lactic Acid	**0.5-2.2 mmol/L**	4.8	Not available	Elevated lactic acid levels are related to liver disease (Pagana et al., 2020). The patient has been

				diagnosed with cirrhosis.
Troponin	**0-0.04 ng/mL**	<0.03	Not available	
CK-MB	**3-5 %**	Not available	Not available	
Total CK	**22-198 U/L**	Not available	Not available	

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**	1.3 High	Not available	Cirrhosis can lead to an increased INR (Pagana et al., 2020). The patient has been diagnosed with cirrhosis.
PT	**11-13.5 sec**	15.6 High	Not available	Cirrhosis can lead to an increased PT (Pagana et al., 2020). The patient has been diagnosed with cirrhosis.
PTT	**25-36 sec**	32	Not available	
D-Dimer	**0-0.50 mg/L**	Not available	Not available	
BNP	**Less than 100 pg/mL**	Not available	Not available	
HDL	**Male: >45 mg/dL** **Female: >55 mg/dL**	Not available	Not available	
LDL	**Adult: <130 mg/dL** **Child: < 100 mg/dL**	Not available	Not available	
Cholesterol	**<200 mg/dL**	Not available	Not available	
Triglycerides	**40-180 mg/dL**	Not available	Not available	
Hgb A1c	**<5.7%**	Not available	Not available	
TSH	**0.5-5 mU/L**	5.715 High	Not available	TSH levels can be elevated with severe and chronic illnesses (Pagana

				et al., 2020). The patient has been diagnosed with cirrhosis.

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**	Amber/ Clear	Not available	
pH	**4.6-8 Avg: 6**	7.0	Not available	
Specific Gravity	**1.005-1.03**	1.010	Not available	
Glucose	**30-300 mg/day**	Neg	Not available	
Protein	**0-8 mg/dL**	Neg	Not available	
Ketones	**Negative**	Neg	Not available	
WBC	**0-4 per low-power field Negative for cast**	0-5	Not available	
RBC	**Less than or equal to 2, negative for cast**	Neg	Not available	
Leukoesterase	**Negative**	Trace	Not available	Trace amounts of leukoesterase could be indicative of a UTI (Pagana et al., 2020). The patient is currently receiving vancomycin for infection of an unknown source.

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	**7.35-7.45 mm/Hg**	Not available	Not available	
PaO2	**80-100 mm/ Hg**	Not available	Not available	
PaCO2	**35-45 mm/Hg**	Not available	Not available	
HCO3	**22-26 mEq/ L**	Not available	Not available	
SaO2	**Greater than or equal to 95**	Not available	Not available	

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 mm/U** **Positive: greater than 100,000 mm/U**	Negative	Not available	
Blood Culture	**Negative**	Negative	Not available	
Sputum Culture	**Normal Upper RT**	Not available	Not available	
Stool Culture	**Normal intestinal flora**	Not available	Not available	

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). *Mosby's diagnostic and laboratory test reference* (15th ed.). Mosby.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

10/21/2022:

CT head or brain w/o contrast: Near-total resolution of left-sided subdural hematoma since earlier study. Small subdural fluid collection present in the left frontal location. No definite post-surgical changes are identified to account for the significant improvement in the previously seen bilateral subdural hematoma.

Chest x-ray: No acute disease. Lungs are grossly clear, no infiltrates seen. Heart is grossly normal size.

EKGM: Atrial rate 288/53, QRS duration 82/96, QTC calculation 462/501, Q-T duration 368/534, R Axis 22/35, T Axis -29/14, P Axis 79/16, P.R. interval -/146, Ventricular rate 95/53.

EKG 12 Lead: Sinus bradycardia. Prolonged QT, Abnormal ECG

Ammonia Levels: 265 on admission. 95 (10/20/22)

Diagnostic Test Correlation (5 points):

Patient was brought into the emergency room unresponsive. An EKG was performed to assess the heart's electrical activity (Capriotti, 2020). Chest x ray was performed to assess the lungs and heart size. CT of the head was performed to assess for any bleeding. The patient had a prior history of a subdural hematoma.

Diagnostic Test Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

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

Home Medications (5 required)

Brand/Generic	midodrine (Orvaten)	magnesium hydroxide (Milk of Magnesia)	pantoprazole (Protonix)	furosemide (Lasix)	ursodiol (Actigall)
Dose	10 mg	30 mL	40 mg	40 mg	300 mg
Frequency	3x daily AC	PRN	2x daily	Daily	2x daily
Route	PO	PO	PO	PO	PO
Classification	P: Alpha-1 adrenergic receptor agonist	P: Laxative, antacid	P: Proton pump inhibitor	P: Loop diuretic	P: Bile Acid

	T: Vasopressor (Jones & Bartlett, 2019)	T: Laxative	T: Antiulcer	T: Antihypertensive, diuretic	T: Bile salt replenisher
Mechanism of Action	Alpha-1 adrenergic receptor agonist which constricts blood vessels raising blood pressure (Jones & Bartlett, 2019).	Magnesium hydroxide works by reducing stomach acids up and absorbing water into the intestines increasing bowel movements (Jones & Bartlett, 2019).	Interferes with gastric acid by inhibiting the hydrogen-potassium-adenosine triphosphatase enzyme system or proton pump in gastric parietal cells (Jones & Bartlett, 2019).	Inhibits sodium and water reabsorption in the loop of Henle and increases urine formation (Jones & Bartlett, 2019).	Suppresses biliary secretion, hepatic synthesis, and intestinal reabsorption of cholesterol. Prolonged use promotes dissolution of gallstones (Jones & Bartlett, 2019).
Reason Client Taking	Hypotension	Constipation	GERD	Fluid retention	Cirrhosis
Contraindications (2)	Do not take medication lying down. Do not take it in conjunction with cold medications (Jones & Bartlett, 2019).	Do not take this medication if you have stomach pain. Do not take it if you are vomiting.	Hypersensitivity to pantoprazole Hypersensitivity to lansoprazole	Anuria Hypersensitivity to furosemide	Acute cholangitis Pancreatitis
Side Effects/Adverse Reactions (2)	Scalp itching Frequent urination	Diarrhea Decreased taste	Anxiety Insomnia	Dizziness Fever	Cough Leukopenia
Nursing Considerations (2)	Give the last dose 4 hours before bedtime (Jones &	Patients should have a bowel movement	Do not crush medication.	Elderly patients are more susceptible	Administer with food to increase

	Bartlett, 2019). Elevate the patient's head of bed when administering medication.	within 30 minutes to 6 hours of taking. Administer with 8 ounces of water (Jones & Bartlett, 2019).	Administer 30 minutes prior to meals (Jones & Bartlett, 2019).	to hypotension. Administer in the morning to avoid patients needing to use the restroom during the night (Jones & Bartlett, 2019).	drug dissolution. Diarrhea will occur if the patient takes too much ursodiol (Jones & Bartlett, 2019).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Assess the patient's blood pressure. Contraindicated for high blood pressure. Assess the patient's heart rate. Contraindicated for bradycardia (Jones & Bartlett, 2019).	Magnesium levels as this medication can lead to hypermagnesemia. Do not give to patients who are exhibiting signs of abdominal pain (Jones & Bartlett, 2019).	Monitor urine output as pantoprazole can lead to acute interstitial nephritis (Jones & Bartlett, 2019). Monitor patients for signs and symptoms of hypomagnesemia including muscle cramps, weakness, and hyperreflexia.	Patients allergic to sulfonamides may also be allergic to furosemide. Monitor blood pressure as furosemide can cause hypotension (Jones & Bartlett, 2019).	Assess the patient's liver enzymes for elevation. Assess if a patient has taken aluminum-containing antacids, cholestyramine, or colestipol 1 hour before or 4 after ursodiol because they may decrease drug effect (Jones & Bartlett, 2019).
Client Teaching	The patient	This	Swallow	Take	Take

needs (2)	needs to be sitting up to take medication. Medication should be taken 30 minutes prior to meals (Jones & Bartlett, 2019).	medication can increase the absorption of ibuprofen. Taking too much of this medication may result in watery stools.	pill whole. Do not crush. Notify the provider if diarrhea occurs or becomes prolonged and severe.	medication in the morning to avoid needing to use the restroom at night. Take with food or milk to reduce GI distress.	ursodiol with food. Notify provider if evidence of acute cholecysti tis develops such as right upper quadrant pain.

Hospital Medications (5 required)

Brand/Generic	lactulose (Cholac)	vancomycin 0.9% 250 mL (Firvanq)	rifaximin (Xifaxan)	sodium bicarbonate (Sellymin)	levetiracet am (Keppra)
Dose	10g/15mL	125 mL/hr	400 mg	650 mg	500 mg
Frequency	3x daily	q24h	3x daily	daily	2x daily
Route	PO	IV	PO	PO	PO
Classification	P: Disaccharid e T: Colonic acidifier	P: Glycopeptid e T: Antibiotic	P: Rifamycin T: Antibiotic	P: Electrolyte T: Antacid, electrolyte replenisher, systemic and urinary alkalizer.	P: Pyrrolidin e derivative T: Anticonvu lsant
Mechanism of Action	Arrives unchanged in the colon, where it breaks down lactic	Inhibits bacterial RNA and cell wall synthesis; alters	As a semisyntheti c derivative of rifampin, it inhibits bacterial	Buffers excess hydrogen ions, increases plasma	May protect against secondary generalize d seizure

	acid and small amounts of formic acids, acidifying fecal contents. Makes intestinal contents more acidic than blood. This prevents ammonia diffusion from the intestine into blood, as occurs in hepatic encephalopathy (Jones & Bartlett, 2019).	permeability of bacterial membranes, causing cell wall lysis and cell death (Jones & Bartlett, 2019).	RNA synthesis by binding to DNA-dependent RNA polymerase, thereby blocking RNA transcription. This results in bacterial cell impairment or death (Jones & Bartlett, 2019).	bicarbonate level, and raises blood pH, thereby reversing metabolic acidosis (Jones & Bartlett, 2019).	activity by preventing coordination of epileptiform burst firing. Does not seem to involve inhibitory and excitatory neurotransmission (Jones & Bartlett, 2019).
Reason Client Taking	Hepatic Encephalopathy	Elevated white blood cell count. Potential infection. Source unidentified.	Hepatic Encephalopathy	metabolic acidosis	Seizures
Contraindications (2)	hypersensitivity to lactulose Low-galactose diet	Hypersensitivity to corn. Hypersensitive to vancomycin.	Hypersensitivity to rifaximin. Hypersensitivity to rifamycin antimicrobial agents.	Hypocalcemia nasogastric suctioning or vomiting	hypersensitivity to levetiracetam Suicidal thoughts
Side Effects/Adverse Reactions (2)	Hyperglycemia	Hypotension	Depression	Hypertonia	Hypotension

	Abdominal cramps	Diarrhea	Peripheral edema	Fatigue	Asthma
Nursing Considerations (2)	Medication may lead to hyperglycemia. Plan to replace fluid if the patient has frequent bowel movements which may lead to hypovolemia (Jones & Bartlett, 2019).	Infuse over at least 1hr/g of vancomycin. Monitor patients for diarrhea when receiving IV vancomycin (Jones & Bartlett, 2019).	Use extreme caution in patients with severe hepatic impairment because increased rifaximin exposure leads to possible increased risk of adverse reactions. Notify the provider if diarrhea gets worse or persist for more than 48 hours (Jones & Bartlett, 2019).	Long-term sodium bicarbonate therapy in conjunction with milk or calcium intake can lead to milk-alkali syndrome. IV form can cause extravasation with necrosis (Jones & Bartlett, 2019).	Monitor patients for seizure activity. Initiate seizure precautions according to facility protocol. Monitor patients for bleeding, fever, or significant weakness. Notify prescriber and expect to obtain a complete blood count to assess patient's hematological status (Jones & Bartlett, 2019).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Monitor ammonia level in patients with hepatic encephalopathy. Hypernatremia and	Monitor CBC results and BUN and serum creatinine levels during therapy, especially if a patient has	This medication should not be given to patients with a fever. Assess ALT levels as this	Monitor sodium intake of patients taking sodium bicarbonate oral powder as sodium levels may	Monitor patient closely for evidence of suicidal thinking or behavior, especially when

	hypokalemia may occur because of taking this medication.	renal impairment. Observe IV site for evidence of extravasation.	medication can lead to an increase.	rise. Monitor urine pH to determine effectiveness if using it as a urine alkalizer.	therapy starts or dosage changes.
Client Teaching needs (2)	Take with food or dilute with juice to reduce sweet taste. Do not take any other laxatives while taking lactulose.	Notify the provider if severe or persistent diarrhea occurs. Instruct patients to keep follow-up appointments after treatment.	Instruct patients to take a full course of medication even if they are feeling better. Tell patient to report diarrhea that gets worse or persists for more than 48 hours or new-onset or recurrence of diarrhea as C-difficile-associated diarrhea may occur.	Do not consume large amounts of dairy while on this medication. Do not take within 2 hours of other drugs.	Urge caregivers to monitor the patient closely for evidence of suicidal tendencies. Emphasize the importance of notifying the prescriber at the first sign of a rash.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2019). *2020 Nurse's drug handbook* (19th ed.). Jones & Bartlett Learning.

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Alert and oriented x4 (person, place, time, and situation) No apparent distress. Patient appeared comfortable. Well-groomed and dressed appropriately.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N X** **Type:**	 Yellow Dry with multiple tattoos including lower back, left wrist, right elbow and forearm, stomach, and left ankle. Warm to touch Normal skin turgor (2+) No rashes present. Small bruises on the right and left forearms. No wounds observed. 20 (average risk)

HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Head and neck are symmetrical. Trachea is midline without deviation. Thyroid is not palpable, no nodules noted. Bilateral carotid pulses are palpable. No lymphadenopathy. Top of the patient's head was shaved in August for surgical drainage of a subdural hematoma. Hair has started to grow back in. Incision has closed. Small scar present. Back of head was shaved upon arrival of current admission due to matting. Bilateral auricles are moist and pink without lesions. Bilateral lids are moist and pink without lesions or discharge. Bilateral sclera are yellow, bilateral cornea clear. No visible drainage from eyes. Septum is midline. Bilateral frontal sinuses are nontender to palpation. Mouth is symmetric without lesions. Posterior pharynx and tonsils are moist and pink w/o exudate noted. Uvula is midline. Soft palate rises and falls symmetrically. Hard palate intact. Yellowing between the soft and hard palate. Oral mucosa is pink and moist without lesions. Dentition is good.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N X** **Edema Y x N** **Location of Edema:**	. Clear S1 and S2 present without murmurs, gallops, or rubs. N/A Peripheral pulses 2+ throughout bilaterally. Capillary refills less than 3 seconds in fingers and toes bilaterally. 2+ pitting edema of the lower calves/feet bilaterally. Distension of the abdomen or ascites present.
RESPIRATORY: **Accessory muscle use: Y☐ N X** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):** **Respiration rate:** **FiO2:** **Total volume (TV):**	 Clear lung sounds anterior and posteriorly bilaterally. N/A

PEEP: **VAP prevention measures:**	
GASTROINTESTINAL: **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 X** **Nasogastric: Y ☐ N x** **Size:** **Feeding tubes/PEG tube Y ☐ N x** **Type:**	 Regular Low Sodium 5'0" (152.40 cm) 115 lbs (52.6 kg) Bowel sounds are normoactive in all four quadrants. 0830 on 10/22/22 No organomegaly or masses noted upon palpation of all four quadrants. Distention present. No incisions. Scarring consistent with cesarean section. No drains present. No wounds present. The NG tube was removed at 0800. Salem sump, 16 french, 50 cm located in R nostril.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N X** **Dialysis: Y ☐ N X** **Inspection of genitals:** **Catheter: Y ☐ N X** **Type:** **Size:** **CAUTI prevention measures:**	 Yellow Clear Patient used the restroom 2x. Unable to get exact measurement. Not observed.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N X**	 All extremities have a full range of movement. No devices needed. Hand grips and pedal pushes and pulls of equal strength. Generalized weakness. Patient needs assistance with an activity requiring

Fall Risk: Y x N☐ **Fall Score: 70** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk X**	much strength. Ex. ambulating, sitting up in bed. Patient's more fall score falls into the high risk category due to IV therapy (vancomycin), previous history of falls, generalized weakness, and needing assistance to walk. Patient is able to ambulate to the restroom with assistance. Patient is able to make position changes independently.
NEUROLOGICAL: **MAEW: Y X N☐** **PERLA: Y X N☐** **Strength Equal: Y X N ☐ if no - Legs ☐ Arms ☐ Both** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	 Patient is able to move all extremities well. Pupils are equal, round, reactive to light, and accommodation. Equal strength of the hands and feet while performing hand grips and pedal pushes/pulls. AxOx4 (person, place, time, and situation. Alert with no signs of distress. Speech is comprehendible. No sensory deficits. Patient is alert and oriented with no recollection of coming through the emergency department. Patient's nurse states the patient slept most of the day yesterday and was unable to respond when asked questions.
PSYCHOSOCIAL/CULTURAL: **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 states she uses distraction as a coping method. She likes to work on word searches, brain games, thinking of items that start with specific letters of the alphabet, painting, and talking with her mother. Appropriate for age. Patient does not follow a specific religion, although she does believe there is a higher power. Patient states she has a strong support system. Her mother and father check in frequently. She also has several girlfriends that live nearby whom she is very close with.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen

0800	61	107/69	15	97.5	100
1045	73	103/78	17	97.4	100

Vital Sign Trends/Correlation:

Patient's vital signs have remained stable since admission. Patient has a history of hypotension. The blood pressure readings above are normal for the patient. She is taking midodrine for hypotension.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0800	0-10	Generalized	0	No pain reported	Continue to monitor
1052	0-10	Generalized	0	No pain reported	Continue to monitor

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	20 gauge R Antecubital, L Forearm (underarm) 10/20/22 IVs are free of occlusion. Patient is receiving vancomycin via IV located in the R antecubital. No signs of erythema or drainage present. IV dressing is clean, dry, and intact.
Other Lines (PICC, Port, central line, etc.)	
Type:	N/A

Size: **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y ☐ N ☐** **CLABSI prevention measures:**	

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
240 mL water 240 mL Grape juice 240 mL Milk 240 mL Apple juice 45 mL popsicle Total: 1,005 mL	Patient ambulated to the toilet 2x. Unable to obtain specific measurement.

Nursing Care

Summary of Care (2 points)

Overview of care:

The patient was awake and oriented during my rotation. I assisted in ambulating the patient to the restroom, passing medications, ordering lunch and obtaining vitals. The patient was very cooperative and appreciative of the services provided by the nurse and myself.

Procedures/testing done:

The patient had blood work drawn during my rotation. Aside from that, no further labs or procedures were performed.

Complaints/Issues:

Patient did not vocalize any complaints.

Vital signs (stable/unstable):

Patient's vital signs remained normal for her. Her blood pressure tends to run on the low side. She is currently taking midodrine for hypotension. Respirations, heart rate, temperature, and oxygen saturation were all within normal limits.

Tolerating diet, activity, etc.:

Patient ambulated to the toilet twice with assistance. She has generalized weakness but was able to do so with little assistance. The Patient's NG tube was removed at 0800. She tolerated eggs, bacon, and an English muffin for breakfast with no difficulties. For lunch, she consumed a turkey wrap, carrots, two popsicles, and juice.

Physician notifications:

The physician was not notified during the rotation.

Future plans for client:

No discharge plans had been made at the time of my rotation. The patient was going to be moved to a less critical floor as she was stable. The nurse was awaiting orders for when this transfer would take place.

Discharge Planning (2 points)

Discharge location:

Home

Home health needs (if applicable):

The patient's mother is staying with her while she is working on refraining from

alcohol. The mother is also assisting in ensuring the patient is taking her medication as needed. This hospitalization was a result of the patient not taking her lactulose as directed causing her ammonia levels to be elevated. The patient and her mother have been educated on the importance of medication compliance.

Equipment needs (if applicable):

No equipment needs were mentioned. Due to the patient's generalized weakness, a walker may be of value.

Follow up plan:

The patient has been directed to follow up with her physician for instruction on additional appointments and lab work needed.

Education needs:

Patient was educated on medication compliance. Patient is aware of the importance of continuing with her sobriety.

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 ● Listed in order by priority – highest priority to lowest priority	**Rationale** ● Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** ● How did the client/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.

pertinent to this client				
1. Risk for injury related to generalized weakness and hypotension as evidence by patient's inability to ambulate on her own and low blood pressure (Phelps et al., 2017).	This diagnosis was chosen based on observation of the patient during rotation. She has generalized weakness and is unable to ambulate on her own. Patient also has low blood pressure which can also be affected by sudden movement changes, as well as medications such as furosemide.	1. Ensure call light is within patients reach. 2. Ensure the patient is getting adequate nutrition and has consult with physical therapy.	1. Patient will press the call light when she needs to use the restroom. 2.Patient will eat breakfast, lunch, and dinner. Patient will participate in physical therapy.	1. Patient was compliant with using call light. 2.Patient ate breakfast and lunch. Physical therapy had not been called to meet with the patient yet but was eager to meet them. Patient states she did not see physical therapy during her 1 month stay at OSF in Peoria until her last day.
2. Fluid volume excess is related to impaired kidney and liver function as evidenced by ascites, 2+ pitting edema in	This diagnosis was chosen based on the patient's fluid retention. The patient has 2+ pitting edema, the lower extremities and abdominal distention.	1. Administer Lasix as directed. 2. Ensure the patient is eating a reduced sodium diet.	1. Patient will urinate at least 30 mL/hr. 2. Patient will utilize the low sodium menu to select meals.	Patient ambulated to the toilet 2x during rotation. Exact amount was not measured, but the patient expressed she needed to use the restroom again as I was leaving. 2. Patient successfully ordered lunch from the low sodium menu. Patient was able to understand the

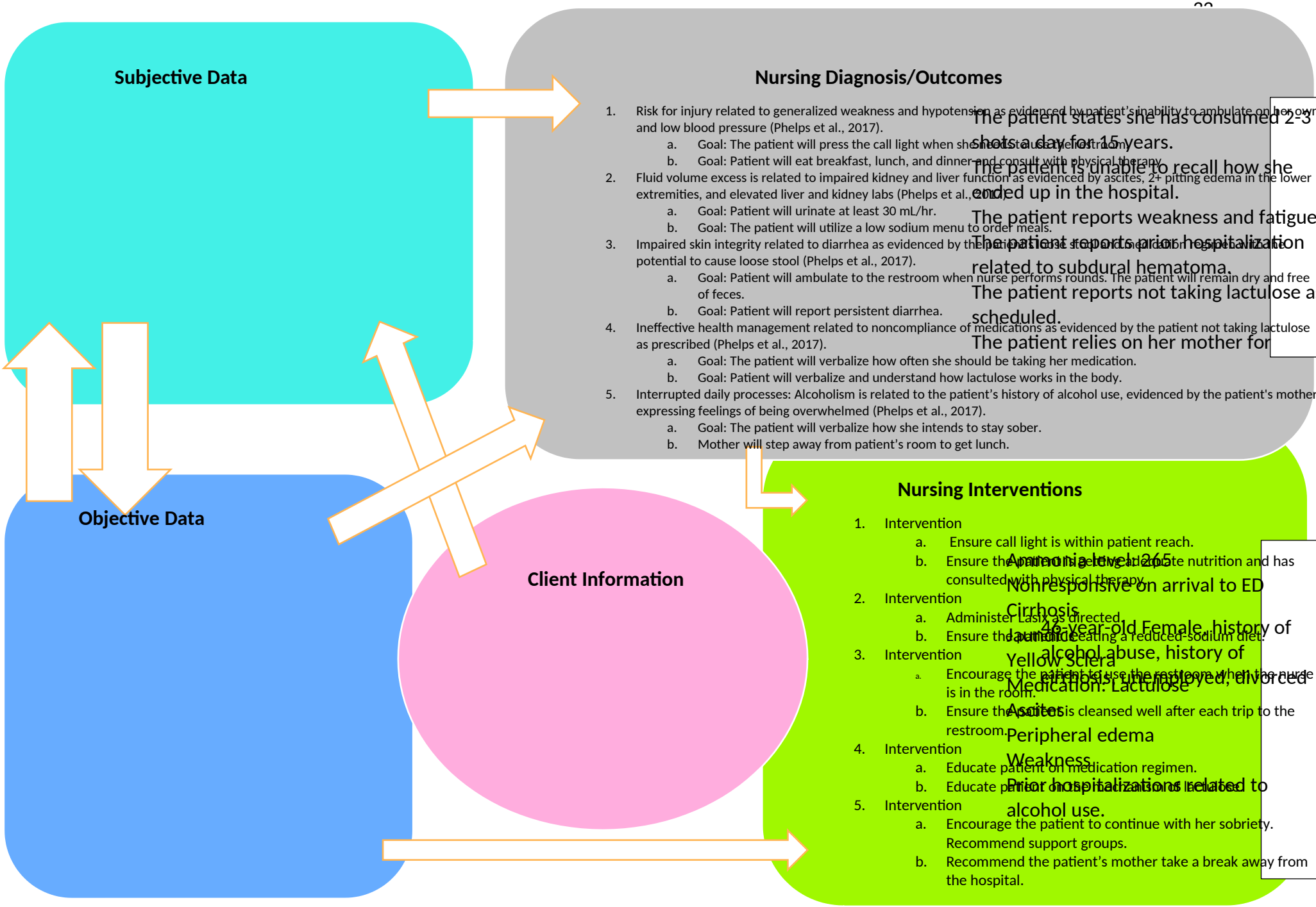
the lower extremities, and elevated liver and kidney labs (Phelps et al., 2017).	Patient's BUN, creatinine, AST, and ALT are elevated.			reasoning for eating a low sodium diet and plans to continue once at home.
3. Impaired skin integrity related to diarrhea as evidenced by the patient's loose stool and medication regimen with the potential to cause loose stool (Phelps et al., 2017).	This diagnosis was selected based on the patient having loose stools and generalized weakness. After researching the patient's medication, it was also discovered that many of the medications including lactulose can cause diarrhea. Persistent loose stools can lead to skin breakdown.	1.Encourage the patient to attempt to use the restroom when the nurse is in the room. This will hopefully prevent the patient from needing to use the restroom when the nurse may be preoccupied. 2. Ensure the patient is cleansed well after each trip to the restroom.	1. Patient will ambulate to the restroom when the nurse performs rounds. 2. Patient will report persistent diarrhea.	1. Patient ambulated to the toilet 2x during rotation. She was compliant when the nurse recommended attempting to use the restroom. 2. Patient voiced an understanding of the importance of reporting persistent diarrhea.
4. Ineffective health management related to noncomp	This diagnosis was chosen based on the patient not taking her medications as directed	1.Educate patient on medication regimen. 2. Educate patient on the purpose of	1. Patient will verbalize an understanding of how often she should be taking her medication. 2.Patient will	1.Patient states she was not taking her medication frequently enough at home. She now understands that she should be taking her medication 3x per

liance of medications as evidenced by patient not taking lactulose as prescribed (Phelps et al., 2017).	leading to her ammonia levels rising to 265.	lactulose.	verbalize an understanding of how lactulose works in the body.	day. 2. Patient verbalized lactulose is needed to remove ammonia from her body.
5. Interrupted daily processes: Alcoholism related to patients history of alcohol use as evidenced by the patient's mother expressing feelings of being overwhelmed (Phelps et al., 2017).	This diagnosis was chosen based on the patient's prior history of alcohol abuse and the strain it has had on her family.	1. Encourage the patient to continue with her sobriety. 2. Recommend the mother step away and take a break while her daughter is hospitalized.	1. Patient will verbalize how she intended to stay sober. 2. Mother will step away from the patient’s room for a break.	Patient states she plans to stay sober with the help of her mother while she is staying with her. Covington also has a new rehab facility. The patient states she has considered going here for meetings. Mother and father had a relaxing lunch at Gilbert Street. Mother verbalized she has been very overwhelmed with her daughter's health needs over the last few months, and it was nice to enjoy a quiet lunch.

Other References (APA):

Phelps, L. L., Ralph, S. S., & Taylor, C. M. (2017). *Sparks & Taylor's nursing diagnosis reference manual* (10th ed.). Wolters Kluwer Health.

Concept Map (20 Points)


Subjective Data
The patient states she has consumed 2-3 shots a day for 15 years.
The patient is unable to recall how she ended up in the hospital.
The patient reports weakness and fatigue.
The patient reports prior hospitalization related to subdural hematoma.
The patient reports not taking lactulose as scheduled.
The patient relies on her mother for
Nursing Diagnosis/Outcomes
1. Risk for injury related to generalized weakness and hypotension as evidenced by patient's inability to ambulate on her own and low blood pressure (Phelps et al., 2017).
a. Goal: The patient will press the call light when she needs assistance from room.
b. Goal: Patient will eat breakfast, lunch, and dinner and consult with physical therapy.
2. Fluid volume excess is related to impaired kidney and liver function as evidenced by ascites, 2+ pitting edema in the lower extremities, and elevated liver and kidney labs (Phelps et al., 2017).
a. Goal: Patient will urinate at least 30 mL/hr.
b. Goal: The patient will utilize a low sodium menu to order meals.
3. Impaired skin integrity related to diarrhea as evidenced by the patient's stool consistency and potential to cause loose stool (Phelps et al., 2017).
a. Goal: Patient will ambulate to the restroom when nurse performs rounds. The patient will remain dry and free of feces.
b. Goal: Patient will report persistent diarrhea.
4. Ineffective health management related to noncompliance of medications as evidenced by the patient not taking lactulose as prescribed (Phelps et al., 2017).
a. Goal: The patient will verbalize how often she should be taking her medication.
b. Goal: Patient will verbalize and understand how lactulose works in the body.
5. Interrupted daily processes: Alcoholism is related to the patient's history of alcohol use, evidenced by the patient's mother expressing feelings of being overwhelmed (Phelps et al., 2017).
a. Goal: The patient will verbalize how she intends to stay sober.
b. Mother will step away from patient's room to get lunch.
Objective Data
Client Information
Nursing Interventions
1. Intervention
a. Ensure call light is within patient reach.
b. Ensure the patient is receiving adequate nutrition and has consulted with physical therapy.
2. Intervention
a. Administer Lasix as directed.
b. Ensure the patient is eating a reduced-sodium diet.
3. Intervention
a. Encourage the patient to use the restroom when the nurse is in the room.
b. Ensure the patient is cleansed well after each trip to the restroom.
4. Intervention
a. Educate patient on medication regimen.
b. Educate patient on the medications' purpose.
5. Intervention
a. Encourage the patient to continue with her sobriety. Recommend support groups.
b. Recommend the patient's mother take a break away from the hospital.
Ammonia level 265
Nonresponsive on arrival to ED
Cirrhosis
Jaundice
Yellow Sclera
Medication: Lactulose
Ascites
Peripheral edema
Weakness
Prior hospitalizations related to alcohol use.
46-year-old Female, history of alcohol abuse, history of cirrhosis, unemployed, divorced