N431 Care Plan #2

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
10/24/21	AM	45	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Registered Nurse	Divorced	Clindamycin – Nausea/vomiting Flagyl- Nausea/vomiting
Code Status	**Height**	**Weight**	
Full Code	5'7"	173lbs	

Medical History (5 Points)

Past Medical History: Hypotension, hiatal hernia, iron deficiency anemia, alcohol abuse, alcoholic hepatitis, acute kidney injury (AKI), anxiety, and depression

Past Surgical History: Patient indicated she had gastric bypass in 2008, cholecystectomy (2008), abdominal ablation, DNC, tubal ligation (2014)

Family History: Patient stated her mom has Acute Myeloid Leukemia (AML), and depression. Her dad has depression and has had TIA's in the past. Her brother is an alcoholic.

Social History (tobacco/alcohol/drugs): Patient denies ever smoking or using any drugs. She said, "It has been hard for me to admit, but I am an alcoholic. I have been drinking 2 bottles of white wine a day for about 10 years."

Assistive Devices: No assistive devices other than glasses.

Living Situation: Patient has a 7 y/o daughter who lives with her.

Education Level: Associates degree in nursing.

Admission Assessment

Chief Complaint (2 points): Abdominal pain, shortness of breath, bloating and edema

History of present Illness (10 points):. Patient stated, "About two weeks ago I started having abdominal pain, increased bloating and shortness of breath. It started gradually but has consistently gotten worse. On 10/24 I started vomiting, had diarrhea and my legs were pretty swollen and feeling tight." She said, "I was

in bed a lot because of the pain, swelling in my legs and bloating in my stomach, I looked like I was 9 months pregnant." She confirmed that she kept her legs elevated and it helped a little bit with the swelling. She stated her dad stopped by and insisted on taking her to the ER.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Cirrhosis of the liver with ascites, secondary to alcohol abuse

Secondary Diagnosis (if applicable): Esophageal varices, grade II

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

Alcoholic liver disease affects more than 2 million people in the United States (Capriotti, 2020). Although there is no known genetic predisposition for alcoholic liver disease, alcohol abuse does run in families (Capriotti, 2020). The damage to the liver from alcoholic cirrhosis causes severe functional impairment and the prognosis has a mortality rate of about 60% within 4 years of diagnosis (Capriotti, 2020). A beer or 4 ounces of wine is equivalent to about 12 grams of alcohol. Men who drink 60-80 grams a day over a 10-year period, or women who drink 20-40 grams a day over a 10-year period, will develop alcoholic liver disease with fatty liver (Capriotti, 2020). There are three different stages of alcoholic liver disease, beginning with fatty liver disease, which is reversible, alcoholic hepatitis, stage II which is sometimes reversible with cessation of alcohol, and cirrhosis being the final and irreversible stage (Hinkle & Cheever, 2018). Approximately 50% of people with alcoholic liver disease will progress to cirrhosis (Capriotti, 2020). Cirrhosis is the 3rd most common cause of death among people who are 45-65 years old, with alcohol cirrhosis having the worst prognosis (Capriotti, 2020). Some of the symptoms of cirrhosis that present in the later stages include nutritional deficiency, hepatocellular jaundice which results from an abnormal amount of bilirubin in the blood and portal hypertension (Hinkle & Cheever, 2018). Dead liver cells are replaced by scar tissue which eventually leads to portal hypertension and liver failure (Hinkle & Cheever, 2018). The blood backs up and leads to venous dilation of the

esophagus and legs, and blood pressure increases in the portal venous system causing the blood to bypass the liver and prevent the hepatocytes from being able to perform essential functions (Hinkle & Cheever, 2018). When bilirubin builds up in the skin it causes jaundice (yellowing of the skin), and sclera (Capriotti, 2020). Portal hypertension can also cause esophageal varices where the veins in the esophagus will become distended and turn into varicose veins which can rupture and bleed (Capriotti, 2020).

Ascites is the buildup of fluid into the peritoneal cavity and is a major cause of portal hypertension. The blood that bypasses the liver is diverted to abdominal peritoneal vessels due to increased pressure, which causes the fluid to leak out and into the peritoneal cavity which causes the body to respond by releasing ADH and aldosterone (Hinkle & Cheever, 2018). ADH conserves fluid by promoting the kidneys to reabsorb water and aldosterone increases the amount of sodium the body retains, which in turn increases fluid retention and fluid in the peritoneal cavity builds up even more. Excessive fluid on the abdomen makes it difficult to breathe as well (Hinkle & Cheever, 2018). Patients who experience ascites will have to have a procedure called paracentesis where a long thin needle is inserted into the peritoneal cavity to drain the fluid out. There are many lab tests run to check the function of the liver, but often won't show as abnormal until about 70% of the parenchyma of the liver is damaged (Hinkle & Cheever, 2018). Some of the liver tests include albumin, AST, ALT, bilirubin, alkaline phosphate, CBCs, and electrolytes (Hinkle & Cheever, 2018). Damage to the liver from alcohol abuse causes an abundance of problems and is shown in looking at the lab values. My patient came into the hospital on 10/24, she has alcoholic cirrhosis with ascites, and stage II esophageal varices. She has been experiencing swelling in her lower legs and feet, and ascites on her abdomen, her skin and sclera are jaundiced. She had a paracentesis on 10/24 which drained off 4400ml of fluid from her abdomen. She had an upper GI endoscopy which was able to diagnose her stage II esophageal varices. She is supposed to be starting on a proton pump inhibitor to heal the varices, but I didn't see one on her medication list. She has decreased blood counts from the ascites which dilutes the blood (Hinkle & Cheever, 2018). Her white blood count is elevated because of the inflammation in her liver, the bilirubin, ALT, AST and

alkaline phosphate, PT and INR are all elevated due to the liver being unable to do its job effectively (Pagana et al., 2022). Her electrolytes are low because the liver damage has caused malnutrition, malabsorption (Hinkle & Cheever, 2018). Her RBC, Hct, Hgb are low due to excess fluid which causes the blood to be diluted and decreased platelets are due to cirrhosis and the liver not producing the hormone thrombopoietin which is needed to make the platelets (Pagana et al., 2022). My patient will have to return periodically to have fluid drained from her abdomen, she has follow-up with GI and the liver transplant center.

Pathophysiology References (2) (APA):

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

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

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2018). *Mosby's Manual of Diagnostic and Laboratory tests.* Elsevier

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	4.4-5.8	3.16	2.37	Decreased in my patient which can be for several reasons. She has cirrhosis with ascites which dilutes the RBC's, she also a history of iron deficiency anemia which is common with chronic alcohol use due to malnutrition, which reduces the number of RBC's. Iron is needed to produce RBC's (Pagana et al., 2022).
Hgb	12.0-15.8	10.4	7.9	Decreased in my patient due to cirrhosis with ascites which causes fluid retention which dilutes the RBC's (Pagana et al., 2022). She also has iron deficiency anemia, and iron is needed for hemoglobin (Pagana et al., 2022). She also has AKI which prevents the kidneys from producing erythropoietin. Iron is needed for hemoglobin which is required for RBC synthesis (Pagana et al., 2022).
Hct	36-47	30	22.1	Decreased in my patient which can be for several reasons. She has cirrhosis with ascites which dilutes the RBC's, she also a history of iron deficiency anemia which is common with chronic alcohol use due to malnutrition, which reduces the number of RBC's. Iron is needed to produce RBC's (Pagana et al., 2022).
Platelets	140-440	182	112	Decreased due to cirrhosis and the liver not producing the hormone thrombopoietin which is needed to make the platelets (Pagana et al., 2022). Cirrhosis causes the spleen to be enlarged which destroys platelets (Pagana et al., 2022).
WBC	4-12	17.8	7.5	Increased in my patient. WBC's increase due to inflammation, cirrhosis of the liver causes inflammation and scarring of the liver (Capriotti, 2020).
Neutrophils	40-60	89.1	77.6	

Lymphocytes	19-49	n/a	n/a	
Monocytes	3-13	5.1	7.1	
Eosinophils	0-8	0.2	1.2	
Bands	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-	134-144	132	137	Decreased sodium levels are associated with fluid retention due to dilution of sodium in the blood (Hinkle & Cheever, 2018). My patient is retaining fluid on her abdomen and her legs
K+	3.5-5.1	2.99	2.73	Acid base imbalance cause potassium to move into the cells from the blood (Hinkle & Cheever, 2018). Low magnesium levels also will cause the kidneys to excrete potassium in the urine (Hinkle & Cheever, 2018). Chronic alcoholic cirrhosis causes malnutrition which also is reason for low potassium (Hinkle & Cheever, 2018).
Cl-	98-107	98	105	
CO2	21-31	17.3	18.9	Decreased in my patient. AKI can impact the kidney's ability to correct acid base imbalance (Hinkle & Cheever, 2018). A low CO2 with low potassium indicates respiratory acidosis (Hinkle & Cheever, 2018).
Glucose	70-99	84	n/a	
BUN	7-25	29	10.2	BUN is related to the metabolic function of the liver and excretory function of the kidneys. Elevated BUN levels occur due to AKI (Hinkle & Cheever, 2018).
Creatinine	0.50-1.20	2.56	1.82	Creatinine is related to the metabolic function of the liver and excretory function of the kidneys. Elevated levels occur due to AKI (Hinkle & Cheever, 2018).

Albumin	3.5-5.7	2.9	3	Decreased in my patient due to cirrhosis which effects the liver's ability to synthesize albumin, therefore having poor protein and liver function (Pagana et al., 2022).
Calcium	8.6-10.3	8.1	8.4	Decreased because calcium binds to albumin, therefore if albumin is low, calcium and magnesium will be low (Hinkle & Cheever, 2018). Chronic alcoholic cirrhosis causes malnutrition which also is reason for low calcium (Hinkle & Cheever, 2018). AKI can also cause low calcium (Hinkle & Cheever, 2018).
Mag	1.6-2.6	n/a	1.5	Decreased because both calcium and magnesium bind to albumin, therefore if albumin is low then the calcium and magnesium will be low (Hinkle & Cheever, 2018). Chronic alcoholic cirrhosis causes malnutrition which also is reason for low magnesium (Hinkle & Cheever, 2018).
Phosphate	n/a	n/a	n/a	
Bilirubin	0-1.2	7.8 total SerPLQN	6.2 total SERPLQN	When the liver is damaged, the hepatocytes do not remove bilirubin from the blood which is why this is elevated (Pagana et al., 2022)
Alk Phos	30-120	204	123	ALP is found in the liver and excreted into the bile. Damaged liver causes elevated ALP (Hinkle & Cheever, 2018).
AST	0-35	246	136	AST is made by hepatocytes, so when the liver is damaged it leaks into the blood which makes it high (Hinkle & Cheever, 2018).
ALT	4-36	28	44	This enzyme is made by the liver and when the liver is damaged it leaks into the blood making it elevated (Hinkle & Cheever, 2018).

Amylase	n/a	n/a	n/a	
Lipase	n/a	n/a	n/a	
Lactic Acid	n/a	n/a	n/a	
Troponin	n/a	n/a	n/a	
CK-MB	n/a	n/a	n/a	
Total CK	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	n/a	1.6	n/a	Increased due to receiving heparin injection on this day. Heparin increases clotting time. Also increased due to cirrhosis of the liver which reduces the liver's ability to produce adequate clotting factors (Pagana et al., 2022).
PT	n/a	15.9	n/a	Increased due to receiving heparin injection on this day. Heparin increases clotting time. Also increased due to cirrhosis of the liver which reduces the liver's ability to produce adequate clotting factors (Pagana et al., 2022).
PTT	n/a	n/a	n/a	
D-Dimer	n/a	n/a	n/a	
BNP	n/a	n/a	n/a	
HDL	n/a	n/a	n/a	
LDL	n/a	n/a	n/a	
Cholesterol	n/a	n/a	n/a	
Triglycerides	n/a	n/a	n/a	
Hgb A1c	n/a	n/a	n/a	

TSH	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	Yellow & clear	Amber & Hazy	Amber Clear	One reason for dark colored urine is infection (Pagana et al., 2022). My patient has gram + cocci infection
pH	5-7	6.0	n/a	
Specific Gravity	1.003-1.03	n/a	n/a	
Glucose	negative	n/a	n/a	
Protein	negative	1+	n/a	Increased protein in urine can be indicative of renal failure, but also is a sign of infection (Pagana et al., 2022). My patient has AKI and gram + cocci in her urine culture
Ketones	negative	negative	n/a	
WBC	0-5	6-20	n/a	Her urine culture indicates presence of gram + cocci, the WBC count is elevated in response to bacterial infection (Capriotti, 2020). She is being treated with azithromycin
RBC	0-2	0-2	n/a	
Leukoesterase	negative	n/a	n/a	

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	n/a	n/a	n/a	
PaO2	n/a	n/a	n/a	
PaCO2	n/a	n/a	n/a	
HCO3	n/a	n/a	n/a	

SaO2	n/a	n/a	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	n/a	Gram + cocci	n/a	When a urine culture is positive for bacteria it indicates an infection such as a UTI. WBCs are elevated to help fight off the infection (Pagana et al., 2022). My patient has is being treated with azithromycin
Blood Culture	n/a	normal	n/a	
Sputum Culture	n/a	n/a	n/a	
Stool Culture	n/a	n/a	n/a	

Lab Correlations Reference (1) (APA):

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

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

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2018). *Mosby's Manual of Diagnostic and Laboratory tests.* Elsevier

Diagnostic Imaging

All Other Diagnostic Tests (5 points): On 10/24 my patient had an ultrasound guided abdominal paracentesis to remove fluid from her abdomen. The total amount of fluid removed was 4430ml.

On 10/24 she also had a chest x-ray due to shortness of breath. The x-ray showed a small pleural effusion on the right side.

On 10/25 she had a renal/bladder ultrasound which came back as unremarkable.

On 10/26 she had an upper GI endoscopy which was used to help diagnose the grade II esophageal varices.

Diagnostic Test Correlation (5 points): My patient has alcoholic cirrhosis of the liver with ascites. The ultrasound guided abdominal paracentesis was used to locate and determine the amount of fluid on the abdomen to be removed and check for peritonitis (Capriotti, 2020). The total amount of fluid removed was 4430ml. Since she has been experiencing shortness of breath, a chest x-ray was done to view the lungs and diagnose any problems seen through the x-ray image (Capriotti, 2020). The x-ray showed a small pleural effusion on the right side. Primarily hers is a case of dyspnea on exertion due to the ascites which pushes on her diaphragm making it difficult for her to breathe. The renal/bladder ultrasound is used to visualize the organs and look for any abnormalities. It is a diagnostic test used to help in finding and diagnosing any abnormalities (Capriotti, 2020). My patient has a history of AKI, but the ultrasound came back as unremarkable. The upper GI endoscopy uses a thin tubing with a camera to look at the inner lining of the upper digestive tract and is used to visualize and determine problems in the esophagus and stomach (Capriotti, 2020). The upper endoscopy revealed stage II esophageal varices which is caused by portal hypertension due to liver damage in my patient.

Diagnostic Test Reference (1) (APA):

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

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

Home Medications (5 required)

Brand/ Generic	trazodone hydrochloride/ Desyrel (Nurse's Drug handbook, 2020, p. 1264-1265)	clonazepam/ Clonapam (Nurse's Drug handbook, 2020, p. 258-260)	ferrous sulfate/ Feosol (Nurse's Drug handbook, 2020, p. 491-494)	escitalopram oxalate/Lexapro (Nurse's Drug handbook, 2020, p. 429-431)	hydroxyzine hydrochloride/ Atarax (Nurse's Drug handbook, 2020, p. 597-598)
Dose	50mg	0.5mg	325mg	10mg	25mg
Frequency	Daily at bedtime	BID	Daily	Daily	PRN/QID
Route	Oral 1 tab	Oral 1 tab	Oral 1 tab	Oral 1 tab	Oral 1 tab
Classification	Triazolopryridine derivative Antidepressant	Benzodiazapine Anticonvulsant/antipanic	Hematinic Antianemic	SSRI Antidepressant	Piperazine derivative Anxiolytic, Antiemetic, Antihistamine, Sedative-hypnotic
Mechanism of Action	Blocks serotonin reuptake along the presynaptic neuronal membrane causing an antidepressant effect	Thought to prevent panic and seizures by potentiating the effects of GABA	To normalize RBC production by binding with hemoglobin	Inhibits reuptake of serotonin	Competes with histamine for histamine receptor sites on surfaces of effector cells, suppressing histaminic activity such as edema, and pruritis
Reason Client Taking	Depression	Anxiety	Iron deficiency anemia	Anxiety and depression	Edema and pruritis
Contraindications (2)	1. Hypersensitivity to trazodone 2. Recovery from MI, use within 14	1. Hepatic disease 2. Acute narrow angle glaucoma	1. Hemochromatosis, hemolytic anemias 2. Hypersensitivity to iron salts	1. Hypersensitivity to escitalopram 2. Use within 14 days of MAO inhibitor therapy	1. Early pregnancy 2. Prolonged QT interval

	days of an MAO inhibitor		or their components		
Side Effects/Adverse Reactions (2)	1. Hypotension 2. Hyponatremia	1. Leukopenia 2. Respiratory depression	1. Hypotension 2. hemolysis	1. Hypotension 2. GI Bleeding	1.Drowsiness 2. Seizures
Nursing Considerations (2)	1. Give shortly after meals to reduce nausea 2. Monitor closely for suicidal thoughts	1. Use cautiously in patients with renal failure 2. Monitor for signs of loss of effectiveness	1. Give with a full glass of water or juice 2. To maximize absorption, give 1 hour before meals or 2 hours after	1. Use cautiously in patients with severe renal impairment 2. escitalopram should not be given to patients with hypokalemia or hypomagnesemia	1. Use cautiously in patients with risk factors for prolonged QT intervals, such as electrolyte imbalances 2. Do not give subcutaneously as tissue necrosis may occur
Key Nursing Assessment(s) /Lab(s) Prior to Administration	Monitor for serotonin syndrome	Monitor CBC and liver enzymes during long term therapy	1. Monitor for signs of iron overdose 2. Monitor serum hemoglobin levels	Monitor electrolytes Monitor for bleeding	Monitor electrolytes, Monitor heart rate and rhythm
Client Teaching needs (2)	1. Avoid taking on an empty stomach 2. Do not	1. Take exactly as prescribed 2.	1. Report any s/s of an allergic reaction	1.Alcohol use is not recommended because it may decrease the ability to think clearly	1. Avoid alcohol 2. This medication may cause drowsiness avoid

	stop taking this medication abruptly	Report difficulty urinating, palpations, severed dizziness	2. Avoid foods that impair iron absorption such as dairy, eggs, spinach	2.Review s/s of hyponatremia with patient and instruct them to report to the provider	hazardous activities until the effects are known

Hospital Medications (5 required)

Brand/Generic	azithromycin/ Zithromax (Nurse's Drug handbook, 2020, p. 117-119)	furosemide/Lasix (Nurse's Drug handbook, 2020, p. 538-541)	potassium chloride (Nurse's Drug handbook, 2020, p. 1007-1011)	spironolactone/ Aldactone (Nurse's Drug handbook, 2020, p. 1165-1168)	proAmatine/Midodrine (*Midodrine - FDA prescribing information, side effects and uses*)
Dose	500mg	20mg	40mEq	12.5mg	10mg
Frequency	Once	daily	BID	BID	TID
Route	Inject/IV	Oral 1 tab	Oral 1 tab	Oral 0.5 of 25mg tab	Oral with meals
Classification	Marolide Antibiotic	Loop diuretic Antihypertensive, Diuretic	Electrolyte cation Electrolyte replacement	Potassium-sparring diuretic Diuretic	Vasopressor Antihypotensive
Mechanism of Action	Binds to ribosomal subunit of susceptible bacteria	Inhibits sodium and water reabsorption in the loop of Henle and increases urine formation	Acts as the major cation in intracellular fluid. Helps maintain normal renal function and acid-base balance	Competes with aldosterone for the receptors to prevent sodium and water reabsorption	Forms an active metabolite that is an alpha1-agonist and exerts its actions via activation of the alpha-adrenergic receptors of the arteriolar and venous vasculature, producing an increase in vascular tone and elevation of blood pressure.
Reason Client Taking	Gram + cocci	To reduce edema caused by alcoholic cirrhosis	To treat hypokalemia	Treating edema caused by cirrhosis	Hypotension
Contraindications (2)	1. History of cholestatic	1. Anuria 2. Hypersen	1. Acute dehydratio	1. Acute renal	1. Acute renal disease

	jaundice or hepatic dysfunction associated with prior use of azithromycin 2. Hypersensitivity to azithromycin or other macrolide antibiotics	sitivity to furosemide	n 2. Renal impairment	insufficiency 2. Hypersensitivity to spironolactone	2. Urinary retention
Side Effects/Adverse Reactions (2)	1. Hepatitis 2. Acute renal failure	1. Thrombocytopenia 2. hypomagnesemia	1. GI Bleeding 2. Dyspnea	1. Hypotension 2. GI Bleeding	1. Paresthesia 2. Dysuria
Nursing Considerations (2)	1. Should not be uses in patients with conditions such as uncorrected hypokalemia or hypomagnesemia 2. Use cautiously in patients with hepatic dysfunction not associated with prior use of azithromycin	1. Use cautiously in patients with advanced hepatic cirrhosis, especially if there is a history of electrolyte imbalance 2. Give in the morning to avoid interrupting patients sleep	1. Administer with meals 2. Monitor for abdominal pain, distention or gastrointestinal bleeding	1.Monitor patients with renal impairment closely because of risk of adverse reaction 2. Monitor patient with hepatic impairment because spironolactone can cause sudden alterations in fluid and electrolyte balance	1. Use cautiously in patients with renal or hepatic impairment as the effects of this drug have not been studied in patients with renal or hepatic impairment 2. Blood pressure should be monitored carefully when other medications causing vasoconstriction are being taken
Key Nursing	1.Obtain	1. Weigh	1. Monitor	1. Evaluate	1. Check liver

Assessment(s)/Lab(s) Prior to Administration	culture and sensitivity test results before starting therapy 2.Monitor liver enzymes and electrolytes before and during therapy	patient daily before and during therapy to monitor for fluid loss 2. Monitor BUN, creatinine, electrolytes	electrolyte levels 2. Review medical history for conditions that may predispose patient to develop hyperkalemia	potassium levels 1 week after therapy begins 2. Monitor blood pressure, electrolyte levels, BUN and creatinine	enzymes, BUN and Creatinine before and during medication use 2. Monitor supine and siting blood pressures especially when starting the drug
Client Teaching needs (2)	1. Report s/s of allergic reaction 2. Take 1 hour before eating or 2-3 hours after	1. Take at the same time every day to maintain therapeutic effects 2. Change positions slowly to minimize effects of orthostatic hypotension	1. Do not crush or chew 2. Monitor stools and notify provider of black, tarry or red stools	1. Take this medication with meals or milk 2. Inform provider of other medications you are taking, including OTC meds so the increased risk of hyperkalemia can be monitored	1. Follow directions as prescribed 2. Notify provider of an liver disease or kidney disease

Medications Reference (1) (APA):

Hodgson, B. B. (2018). *Nursing Drug Handbook, 2018*. Wolters Kluwer.

Jones & Bartlett Learning. (2020). *Nurse's Drug Handbook*.

Midodrine - FDA prescribing information, side effects and uses. Drugs.com. (n.d.). Retrieved October 29, 2021, from https://www.drugs.com/pro/midodrine.html.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is alert and oriented to person, place, and time. Patient is well groomed and does not appear to be in any distress.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y N X** **Type:**	Yellow, dry, and warm skin Skin turgor good, immediate recoil of the skin. She has some bruising on her right arm from IV tape, and on the left arm from a previous IV Braden Score: 20 – I deducted for IV and nutrition. She is on a cardiac diet but is hardly eating.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical, trachea is without deviation. No lymphadenopathy noted or palpated, thyroid is non palpable. Ears are symmetrical, and pink without any drainage, no hearing deficit. Sclera is yellow, conjunctiva is pale pink with no draining and EOMs symmetrical. Dentition is good. .
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y x N** **Location of Edema: Legs and distended abdomen**	Clear S1 & S2 heart sounds, no audible murmur, gallop, or rubs noted. Pulse is 2+ throughout bilaterally Cap refill is less than 3 seconds No JVD noted, or palpated Non pitting edema present in lower legs and feet,
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Breath sounds are soft, even, regular and nonlabored bilaterally, without crackles, wheezing or rhonchi.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:**	At home this patient eats a normal diet and generally eats 2-3 times a day unless she is experiencing bloating and full feeling Currently on a cardiac diet with 2000 mg sodium and 20 gm sat fat restrictions 5’7” 173lbs Bowel sounds normoactive

Inspection: **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	Patient had a bowel movement (diarrhea) this morning (10/27) Abdomen is soft, and tender Distention and ascites noted Small scars noted below umbilicus and on the left and right sides of abdomen from previous surgeries. No drains No wounds noted
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Amber in color clear Output is not being recorded, patient reported urinating 3x while I was there.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) X** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	Normal Full ROM in all extremities bilaterally No assistive devices other than eyeglasses 5/5 bilaterally in upper and lower extremities. Fall score 35 – I'm giving her a 35 since she has an IV. She is otherwise ambulating independently, ad lib, and is not requiring any assistance or support.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☒** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	PERLA bilaterally 5/5 strength bilaterally in all extremities Oriented to person, place, time, and situation Normal speech and sensory response in fingers and toes. Clear cognition and alert
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home**	Patient grew up in a Methodist church. She stated, "I am a strong believer in God." Her current church is Maryland Community, and she watches the services online. She is twice divorced, has a 23 y/o daughter, 20 y/o son and 18 y/o son from her first marriage. Her

environment, family structure, and available family support):	7 y/o daughter is from her second marriage, and she lives with her. Patient's mother, father, sister, and brother are also very involved in her life. He mom and brother came to see her today (10/27).

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1215	94 left radial	99/66 Left arm	16	98.2F oral	98% room air
1625	90 left radial	96/66 Left arm	16	98.1F oral	100% room air

Vital Sign Trends: Her vital signs were stable; blood pressure is a little low but considered baseline for her since she is hypotensive. Her pain level is a tolerable level for her.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1215	1/10 numeric	Legs/abdomen	2/10	Dull	Legs elevated Changed positioning Lasix given
1625	1/10 numeric	Legs/abdomen	2/10	Dull	Patient had been up a little bit. Changed positions, elevated legs

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:**	20g Right AC- saline lock 10/24 Patent (flushed well)

Signs of erythema, drainage, etc.: **IV dressing assessment:**	Absent of signs of erythema, drainage Clean, dry, and intact

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
PO intake 480mL water and tea 25% food (yogurt, fruit plate)	3x urination unmeasured

Nursing Care

Summary of Care (2 points)

Overview of care: Patient was awake most of the day. Her brother came in early to visit and later in the day her mom came in. She was up for a short time while she took a shower, sitting on a shower chair with assistance from her mom. She is on a cardiac diet with a 2000mg sodium and 20gm saturated fat restriction. The goals for the day are to get her to eat more and reduce the swelling in her legs. She only ate a few bites of her yogurt for breakfast and maybe 25% of her lunch.

Procedures/testing done: No procedures were scheduled during my shift. She will likely have another ultrasound guided paracentesis in the morning (10/28)

Complaints/Issues: Patient expressed having dull pain in her abdomen, lower legs, and feet, experiencing 2/10 pain which she reports as a tolerable level. She was happy to have her mom and brother visit and felt better after taking a shower. She is looking forward to having the paracentesis again in the morning to get rid of the fluid on her abdomen and help relieve some of bloating feeling. Otherwise, she has no complaints or issues.

Vital signs (stable/unstable): Her vital signs were stable, blood pressure slightly low but baseline for her since she is hypotensive.

Tolerating diet, activity, etc.: She is independent, ambulated to the bathroom and back to bed during my shift. She is not eating well and is mostly trying to keep her legs elevated to help reduce the edema.

Physician notifications: No physician notification today. Possible paracentesis scheduled in the morning (10/28)

Future plans for patient: Increase ambulation, reduce edema, work on eating more. No discharge date currently.

Discharge Planning (2 points) Patient will discharge home, no date given at this time.

Discharge location: Home

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: Follow up with GI and liver transplant center, join a support group

Education needs: Avoid alcohol completely to be eligible for a liver transplant. Take any medications prescribed as directed and until they are gone, increase activity as tolerated, obtain adequate nutrition and hydration.

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

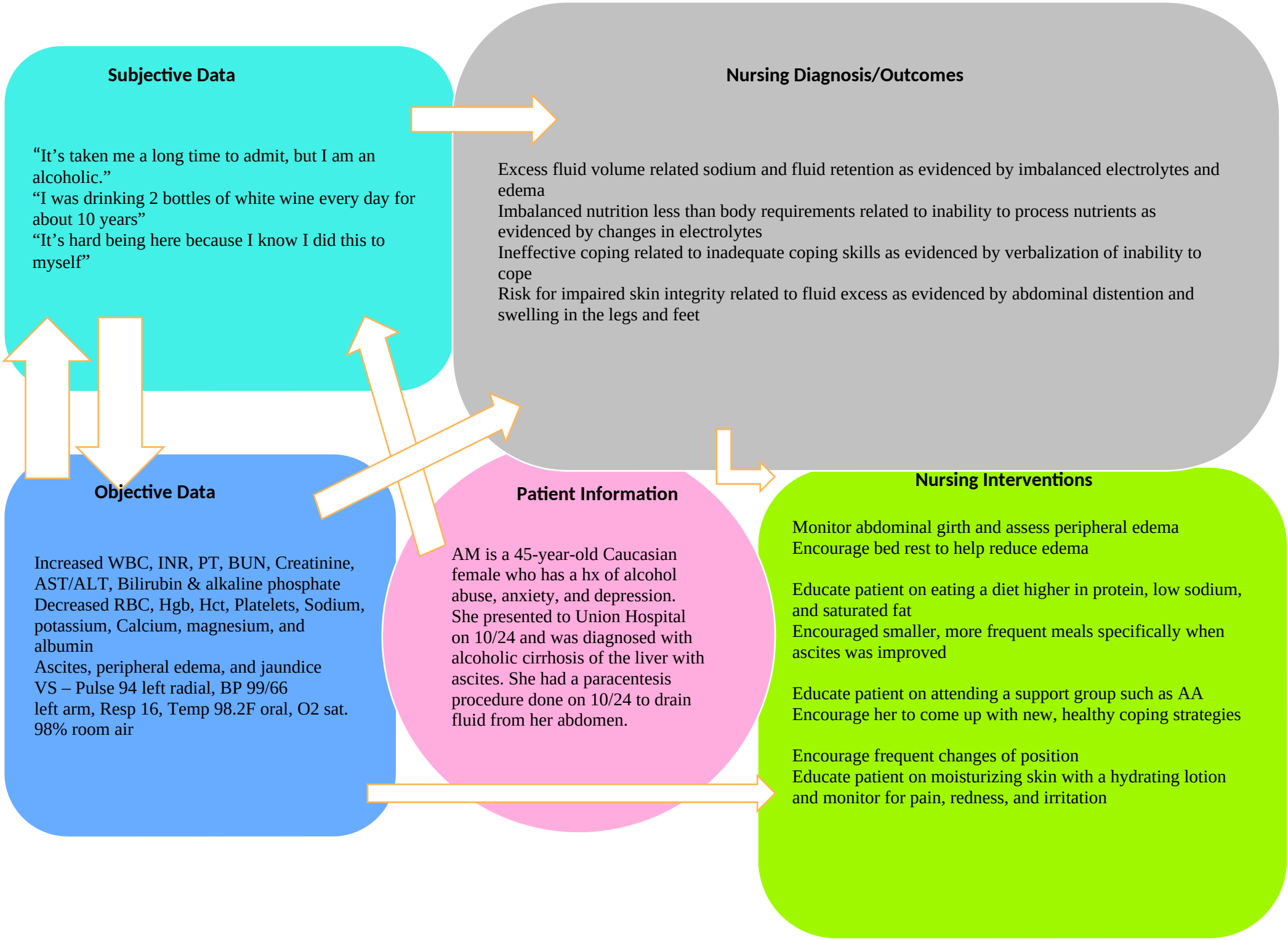
Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** ● Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** ● How did the patient/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.
1. Excess fluid volume related sodium and fluid retention as evidenced by imbalanced electrolytes and edema	Excess fluid causes difficulty breathing, edema, and can cause further kidney problems as the kidneys work harder to rid the body of the extra fluid	Monitor abdominal girth and assess peripheral edema Encourage bed rest to help reduce edema	Goal met- Abdomen is distended, soft and tender on palpation, increasing in size. Paracentesis planned for 10/28. Non pitting peripheral edema is present, Lasix and spironolactone were given. Patient is remaining in bed with legs elevated
2. Imbalanced nutrition less than body requirements	My patient has low electrolyte levels, and albumin due to malabsorption and	Educate patient on eating a diet higher in protein, low sodium, and saturated fat	Goal met- Patient agreed to continue the low sodium diet at home and was on board with trying to eat

related to inability to process nutrients as evidenced by changes in electrolytes	malnutrition	Encouraged smaller, more frequent meals specifically when ascites was improved	more frequently since she has not been able to eat much lately
3. Ineffective coping related to inadequate coping skills as evidenced by verbalization of inability to cope	My patient has been turning to alcohol for the past 10 years as a way of coping with stress, and situations that caused her to be anxious or depressed	Educate patient on attending a support group such as AA Encourage her to come up with new, healthy coping strategies	Goal met- We talked about her getting into AA meetings and she agreed that she needed to do that. We discussed other options she could use in place of alcohol, and she agreed she was going to start exercising
4. Risk for impaired skin integrity related to fluid excess as evidenced by abdominal distention and swelling in the legs and feet	My patient has a lot of abdominal distention and swelling in her legs and feet	Encourage frequent changes of position Educate patient on moisturizing skin with a hydrating lotion and monitor for pain, redness, and irritation	Goal met- Each time I rounded on her I inspected her abdomen and legs for redness, irritation and swelling. I helped her adjust the pillows, so they were not in the same spot under her legs. Her mom helped her apply hydrating lotion after her shower

Other References (APA):

Swearingen, P. L. (2019). *All-in-one nursing care planning resource*. Elsevier.

Concept Map (20 Points):


Subjective Data
"It's taken me a long time to admit, but I am an alcoholic."
"I was drinking 2 bottles of white wine every day for about 10 years"
"It's hard being here because I know I did this to myself"
Nursing Diagnosis/Outcomes
Excess fluid volume related sodium and fluid retention as evidenced by imbalanced electrolytes and edema
Imbalanced nutrition less than body requirements related to inability to process nutrients as evidenced by changes in electrolytes
Ineffective coping related to inadequate coping skills as evidenced by verbalization of inability to cope
Risk for impaired skin integrity related to fluid excess as evidenced by abdominal distention and swelling in the legs and feet
Objective Data
Increased WBC, INR, PT, BUN, Creatinine, AST/ALT, Bilirubin & alkaline phosphate
Decreased RBC, Hgb, Hct, Platelets, Sodium, potassium, Calcium, magnesium, and albumin
Ascites, peripheral edema, and jaundice
VS – Pulse 94 left radial, BP 99/66 left arm, Resp 16, Temp 98.2F oral, O2 sat. 98% room air
Patient Information
AM is a 45-year-old Caucasian female who has a hx of alcohol abuse, anxiety, and depression. She presented to Union Hospital on 10/24 and was diagnosed with alcoholic cirrhosis of the liver with ascites. She had a paracentesis procedure done on 10/24 to drain fluid from her abdomen.
Nursing Interventions
Monitor abdominal girth and assess peripheral edema
Encourage bed rest to help reduce edema
Educate patient on eating a diet higher in protein, low sodium, and saturated fat
Encouraged smaller, more frequent meals specifically when ascites was improved
Educate patient on attending a support group such as AA
Encourage her to come up with new, healthy coping strategies
Encourage frequent changes of position
Educate patient on moisturizing skin with a hydrating lotion and monitor for pain, redness, and irritation