N321 Care Plan 1

Lakeview College of Nursing

Sarah Minacci

Demographics (3 points)

Date of Admission 2/12/24	**Client Initials** R.D	**Age** 75	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired; Used to work for General Motors	**Marital Status** Widowed	**Allergies** Grass extracts
Code Status Full Code (No ACP Docs)	**Height** 5'7" (170.18 cm)	**Weight** 183 lbs (83 kg)	

Medical History (5 Points)

Past Medical History: Chest pain, Combined forms of age-related cataract of the left and right eyes, Depression, Fatigue, Gastroesophageal reflux disease (GERD), Gout, Headaches, Hypertension, Hypothyroidism, Stage 4 kidney disease, Anxiety, Chronic fibromyalgia, Cystitis, Anemia, Acute lower back pain, Impaired balance/gait, Osteoarthritis, Mixed hyperlipidemia, Obesity, Spinal stenosis, Edema, Type II diabetes, Intertrigo, Muscle spasms, Proteinuria, Alkaline phosphatase elevation

Past Surgical History: Breast enhancement, Appendectomy, Back surgery, Orthopedic vertebrae surgery, Breast biopsy, Cataract removal with implant (left and right eyes), Diagnostic colon endoscopy, Tubal ligation, Hysterectomy.

Family History: Kidney disease in the mother; Heart attack and heart surgery in the father; Breast cancer in the sister and two maternal aunts; Chronic obstructive pulmonary disease in the brother; Colon cancer in the daughter.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): The patient was a former smoker who states to have quit "a long, long time ago" and that she did not used to smoke very much. She denies use of smokeless tobacco and use of alcohol and drugs.

Assistive Devices: The patient wears glasses and uses a walker at home and occasionally a wheelchair.

Living Situation: The patient lives alone but has a home health aide that comes to help her 4 days a week.

Education Level: The client stated to have graduated high school.

Admission Assessment

Chief Complaint (2 points): The patient presented to the Emergency Department (ED) on 2/12/24 with complaints of “throwing up” and “bad stomach pain”.

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

The patient, R.D arrived at the ED on 2/12/24 complaining of vomiting and severe abdominal pain. The patient stated that she has had some intermittent episodes of nausea, vomiting, and stomach pain over the last few months. She was very concerned now, because over the last 2 days she had thrown up several times and her stomach pain was continuing to get worse. Upon assessment, she stated that most of her pain is “in her lower belly” and that it is more tender on the lower right quadrants than other parts of her stomach. She describes the pain as “sometimes stabbing” but otherwise a constant dull pain rated an 8/10. Besides her stomach pain, she says that she has been nauseous and has not been eating much lately. She says that she is tired all of the time and stated, “lately I have just been feeling sick.” Movement and activity make her pain worse and she says that only rest makes her pain any better. She denied taking any over-the-counter medications for pain. The patient states to have gotten treatment for her stomach pain before with “surgery,” though this is not consistent with her medical record. The patient was mildly disoriented upon initial assessment.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Diverticulitis

Secondary Diagnosis (if applicable): Pancreatic mass; Liver lesions

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

Patient R.D arrived at the ED with complaints of nausea, vomiting, and stomach pain and was diagnosed with diverticulitis. To understand how diverticulitis develops, it is important to first understand what a diverticulum is. A diverticulum is a small sac-like protrusion of the intestinal wall (Hinkle et al., 2021). These small sacs can occur anywhere in the GI tract but are most commonly found in the sigmoid and descending colon, as was the case with this specific patient (Hinkle et al., 2021). A diverticulum can form and herniate through the intestinal wall due to a combination of high intraluminal pressure, low volume in the colon from a fiber-deficient diet, and decreased muscle strength of the colon from increasing age or hardened fecal matter (Hinkle et al., 2021). When a person is found to have multiple of these small out-pouching diverticula they are said to have diverticulosis (Hinkle et al., 2021). Diverticulosis is a very common disease that is found in over half of adults older than 65 and in 70% of adults over the age of 80 (Hinkle et al., 2021). Thankfully, 80% of people who have diverticulosis never develop any complications of the disease and are asymptomatic (Hinkle et al., 2021). However, some people develop diverticulitis which is inflammation of the diverticula out-pouchings (Hinkle et al., 2021). The exact reason for why the diverticula become inflamed is not completely understood, but the main theory is that food or fecal contents becomes trapped in the out-pouchings of the intestine, causing bacterial overgrowth, resulting in infection and inflammation (Hinkle et al., 2021). Risk factors for developing diverticulosis and diverticulitis

include a high fat and high sugar diet that is low in fiber, obesity, smoking, regular use of NSAIDs, and a family history of the condition (Hinkle et al., 2021).

As mentioned previously, many people with diverticulosis have no symptoms at all, however, diverticulitis presents with several signs and symptoms. Commonly a person with diverticulitis will experience irregular bowel movements with intervals of both constipation and diarrhea (Hinkle et al., 2021). They may also experience nausea, vomiting, low appetite, and bloating (Hinkle et al., 2021). Patients will also often complain of a severe dull and steady pain most commonly in the left lower quadrant (Hinkle et al., 2021). Recurrent episodes of diverticulitis can cause complications such as local abscesses, rectal bleeding, fistulas, and intestinal obstructions (Hinkle et al., 2021). Patient, R.D presented with some classic symptoms of diverticulitis including nausea, vomiting, and abdominal pain. Interestingly, while the patient complained of generalized stomach pain, her most severe pain was actually localized to her right side. This patient also had mild constipation and was recently only able to produce small infrequent stools.

Typically, in order to diagnose diverticulitis a physician will order an abdominal and pelvic CT (Capriotti, 2020). Additionally, an abdominal x-ray, ultrasound, and MRI may also be done to help diagnose diverticulitis (Capriotti, 2020). A colonoscopy can also be done to diagnose diverticulosis but it should not be done if acute diverticulitis is actively suspected (Capriotti, 2020). Serum amylase and lipase levels along with liver enzyme labs should be done as well to look for any signs of pancreatic and liver dysfunction that could be contributing to problems with the intestines (Capriotti, 2020). Stool studies may also be done to look for occult blood (Capriotti, 2020). In the case of this patient, she had an abdominal and pelvic CT done that showed diverticulosis of her descending and sigmoid colon with mild colonic hypertrophy. This

diagnostic test revealed several other abnormalities with her liver, kidneys, gallbladder, and pancreas which led to other diagnostic testing such as an abdominal ultrasound and magnetic resonance cholangiopancreatography to be completed.

Treatment for patients with uncomplicated diverticulitis can usually be done on an out-patient basis by having them rest, initiating a clear liquid diet until the pain and inflammation stops, and then beginning a high-fiber and low-fat diet (Hinkle et al., 2021). The high fiber and low-fat help to reduce intraluminal pressure and promote healthy peristalsis (Hinkle et al., 2021). Older adults and those who are immunocompromised often have to be hospitalized during acute diverticulitis (Hinkle et al., 2021). With these patients, treatment usually involves initially making them nothing by mouth, administering IV fluids, and beginning nasogastric suctioning if there is abdominal distension in order to rest the bowels (Hinkle et al., 2021). Patients are also treated with broad spectrum antibiotics and analgesics for pain (Hinkle et al., 2021). Oral intake is gradually increased with liquids and then a soft diet until signs of the infection decreases (Hinkle et al., 2021). Rarely is diverticulitis treated with surgery, but if the bouts are severe enough then a diseased section of the bowel will be removed and anastomosis will be performed (Capriotti, 2020). This specific patient needed to be hospitalized and was treated by originally being NPO and was administered 0.9% sodium chloride fluids. She is now on a mechanical soft diet, is receiving Norco for pain relief, and is taking the antibiotic amoxicillin-clavulanate.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). Chapter 30: Common disorders of the large intestine. In *Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed., p. 736). F.A. Davis.

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. J. (2021). Chapter 41: Management of patients with intestinal and rectal disorders. In *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed., pp.1300-1302). Wolters Kluwer.

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.4-5.8 10(6)/mcL	4.08 10(6)/mcL	3.44 10(6)/mcL	Anemia and renal disease can cause a low red blood cell count (Pagana et al., 2023, p.750). This patient has a medical history of both anemia and stage 4 kidney disease.
Hgb	13.0-16.5 g/dL	11.5 g/dL	9.7 g/dL	Anemia, renal disease, and splenomegaly are a few things that can cause decreased hemoglobin levels and this patient has a medical history of all three of those conditions (Pagana et al., 2023, p. 480).
Hct	38.0%-50.0%	36%	30.2%	Anemia and renal disease can cause a decreased hematocrit level (Pagana et al., 2023, p. 478). This patient has a medical history of both anemia and stage 4 kidney disease.
Platelets	140-440 10(3)/mcL	165 10(3)/mcL	210 10(3)/mcL	N/A
WBC	4.0-12.0 10(3)/mcL	9.5 10(3)/mcL	13.20 10(3)/mcL	Infection, stress, and inflammation can cause an increase in white blood cell count (Pagana et al., 2023, p. 949). This patient was found to have E. Coli present in a urine culture which is indicative of a urinary tract infection. She also has diverticulitis which is an inflammatory disease process and she is likely stressed from her hospital stay.
Neutrophils	47.0%-73.0%	70%	75.3%	Acute infections and inflammatory disorders can cause an increase in

				neutrophils (Pagana et al., 2023, p. 950). This patient was found to have E. Coli present in a urine culture which is indicative of a urinary tract infection. She also has diverticulitis which is an inflammatory disease process.
Lymphocytes	18.0%-42.0%	21.6%	14.7%	Because this patient has a new onset of a urinary tract infection as well as a flare up of diverticulitis, neutrophils will respond first and in the greatest number. These neutrophils then crowd out more mature forms of WBC such as lymphocytes (Pagana et al., 2023, p. 950). A greater percentage of lymphocytes would be present in a more chronic infection.
Monocytes	4.0%-12.0%	6.0%	7.0%	N/A
Eosinophils	0.0%-5.0%	2.0%	2.6%	N/A
Bands	0.0%-3.0%	N/A	N/A	N/A

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136-145 mmol/L	140 mmol/L	137 mmol/L	N/A
K+	3.5-5.1 mmol/L	4.1 mmol/L	3.7 mmol/L	N/A
Cl-	98-107 mmol/L	104 mmol/L	108 mmol/L	Anemia and kidney dysfunction can cause increases in chloride levels (Pagana et al., 2023, p. 221). This patient has a medical history of both of those conditions.
CO2	22-30 mmol/L	22 mmol/L	21 mmol/L	Acidotic states and renal failure can cause a decrease in CO2 level (Pagana et al., 2023, p. 188). This patient has stage 4 kidney disease.
Glucose	70-99 mg/dL	117 mg/dL	106 mg/dL	Diabetes mellitus, acute stress, and chronic renal failure can all cause increases in blood glucose (Pagana

				et al., 2023, p.453). This patient has type II diabetes as well as chronic renal failure.
BUN	8-20 mg/dL	13 mg/dL	12 mg/dL	N/A
Creatinine	0.7-1.0 mg/dL	1.37 mg/dL	1.09 mg/dL	An increase in creatinine level signals that there is renal dysfunction and that the kidneys are not filtering adequately (Pagana et al., 2023, p.296). This patient has chronic kidney disease.
Albumin	3.5-5.0 g/dL	3.6 g/dL	2.8 g/dL	Albumin level serves as an indicator of liver function. When the liver is damaged it is unable to synthesize albumin and levels will decrease (Pagana et al., 2023, p.728). A CT of this patient's abdomen revealed abnormalities in her liver that are suspicious for underlying masses. If those masses are indeed present, they could be affecting liver function.
Calcium	8.7-10.5 mg/dL	9.8 mg/dL	9.5 mg/dL	N/A
Mag	1.7-2.2 mg/dL	N/A	N/A	N/A
Phosphate	2.5-4.5 mg/dL	N/A	N/A	N/A
Bilirubin	0.2-1.2 mg/dL	1.4 mg/dL	4.1 mg/dL	Typically, liver dysfunction such as cirrhosis or hepatitis causes increases in bilirubin; however, some medications such as antibiotics can also increase bilirubin levels (Pagana et al., 2023, p.136). This patient is currently taking an antibiotic and a recent CT revealed abnormalities of the liver which could indicate hepatic dysfunction.
Alk Phos	40-150 U/L	324 U/L	426 U/L	Many things can cause an increased alkaline phosphatase level including cirrhosis, biliary obstructions, intestinal ischemia, and medications like allopurinol and antibiotics (Pagana et al., 2023, p. 24). This

				patient was found to have suspicious abnormalities in her liver, she has a partially obstructed biliary duct, has diverticulosis, and is also taking both allopurinol and an antibiotic. All of these things combined are likely causing such a high alkaline phosphatase level.
AST	5-34 U/L	48 U/L	50 U/L	Diseases such as hepatitis, cirrhosis, or liver tumors that affect liver cells cause an increase in AST (Pagana et al., 2023, p. 119). This patient was found to have abnormalities in the lobes of her liver that are suspicious for underlying masses. If there are masses then this could be causing the increase in AST.
ALT	0-55 U/L	31 U/L	47 U/L	N/A
Amylase	53-123 U/L	N/A	N/A	N/A
Lipase	8-78 U/L	6.3 U/L	N/A	Low lipase levels can be the result of chronic pancreatitis or it could be a sign of pancreatic cancer (Pagana et al., 2023, p. 556). This patient was found to have a mass on her pancreas that may be a neoplasm.
Lactic Acid	05.-2.2 mg/dL	N/A	N/A	N/A

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.8-1.1 seconds	N/A	N/A	N/A
PT	11.0 – 13.5 seconds	N/A	N/A	N/A
PTT	30-40 seconds	N/A	N/A	N/A

D-Dimer	< 500 ng/mL	N/A	N/A	N/A
BNP	< 100 pg/mL	N/A	N/A	N/A
HDL	>40 mg/dL	N/A	N/A	N/A
LDL	< 130 mg/dL	N/A	N/A	N/A
Cholesterol	< 200 mg/dL	N/A	N/A	N/A
Triglycerides	<150 mg/dL	N/A	N/A	N/A
Hgb A1c	4.0%-6.0%	N/A	N/A	N/A
TSH	0.27-4.20 mIU/L	N/A	N/A	N/A

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Clear, Yellow	Dark Yellow, Turbid	Dark Yellow, Clear	This patient has poor kidney function due to stage 4 kidney disease. She was also found to have E.coli in a urine sample and this indicates a UTI which can also contribute to concentrated urine.
pH	5.0-9.0	6.5	N/A	N/A
Specific Gravity	1.003-1.030	1.014	N/A	N/A
Glucose	Negative	Negative	N/A	N/A
Protein	Negative	1+	N/A	Diabetes, kidney disease, and hypertension can all cause some amounts of protein to be found in the urine (Pagana et al., 2023, p.917). This patient has a medical history of all three of those conditions.
Ketones	Negative	Trace	N/A	Uncontrolled diabetes can cause ketones to be present in the urine (Pagana et al., 2023, p.916). This patient has had several elevated blood glucose readings, suggesting that her diabetes may be poorly

				controlled.
WBC	0-5/hpf	21-50	N/A	Increased WBC in the urine suggests that there is an infection present in the urinary tract (Pagana et al., 2023, p.918). This patient had a urine culture that came back positive for E.coli.
RBC	0-2/hpf	Negative	N/A	N/A
Leukoesterase	Negative	3+	N/A	When this test comes back positive it indicates a UTI (Pagana et al., 2023, p.916). This patient This patient had a urine culture that came back positive for E.coli.

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	Packed; greater than 100,000 CFU/mL E. Coli	N/A	This patient's urine sample was found to have over 100,000 CFU/mL of bacteria, specifically E. coli. This indicates that she has a urinary tract infection.
Blood Culture	Negative	N/A	N/A	N/A
Sputum Culture	Negative	N/A	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's Diagnostic and Laboratory Test Reference* (16th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

(2/12/24) CT Abdomen & pelvis without contrast: breast implants were visualized with calcification; there were several non-calcified nodules in the right middle lung lobe with bibasilar atelectasis; multiple ill-defined low density areas were noted on the liver; a hypodense mass is located at the head of the pancreas; the spleen appears enlarged, the gallbladder is distended; several lesions on the left kidney; diverticulosis noted in the distal descending and sigmoid colon with mild colonic wall thickening and peri-colonic fat stranding.

(2/12/24) X-ray chest 2 views: infiltration of the right lower lobe noted.

(2/12/24) X-ray shoulder: No fractures or abnormalities seen.

(2/13/24) Magnetic resonance cholangiopancreatography (MRCP) without contrast: a 2.3cm x 3.1cm cystic mass was found at the head of the pancreas; body and tail of the pancreas are enlarged with some fluid present; common bile duct and cystic duct are both dilated and partially obstructed; abnormalities were found in the lobes of the liver; the gallbladder is distended with stones and sludge present; the spleen is enlarged; the heart is enlarged.

(2/13/24) Ultrasound abdomen complete: hypoechoic densities were found in the liver; gallbladder is distended with sludge present; cyst present on the left kidney.

(2/15/24) Ultrasound guidance & liver biopsy: the liver was biopsied with an 18-gauge needle 4 times; specimen was obtained and sent to lab; awaiting final pathology results.

Diagnostic Test Correlation (5 points): The CT of the abdomen and pelvis done on 2/12/24 examined all of the organs and structures within the abdominal and pelvic cavity. This was likely done due to the severe stomach pain that the patient was reporting. Results of the CT revealed several abnormalities that could be contributing to her stomach pain such as diverticulosis, an enlarged spleen and gallbladder, liver lesions, and a mass on the head of the pancreas. The chest

x-ray done on 2/12/24 helped to visualize the lungs of the patient and was likely done related to the shortness of breath and general weakness that the patient was experiencing. The results of the chest x-ray revealed infiltration of the right lower lobe and typically infiltrates are consistent with pneumonia or other lung infections (Pagana et al., 2023, p.214). This finding would also be consistent with the patients' general fatigue, low oxygen saturation, and diminished lung sounds in her bases. The x-ray of the shoulder completed on 2/12/24 was done due to a minor fall that the patient experienced a few days prior to her admission to the hospital. The patient stated to have "slipped down the side" of her bed resulting in her hitting her shoulder. There were no remarkable findings on the x-ray and the patient denies pain in her shoulder currently. The MRCP without contrast done on 2/13/24 allowed for a different type of visualization of the liver, bile ducts, gallbladder and pancreas compared to the previous CT scan (Pagana et al., 2023, p.590). This type of testing is used to identify things such as tumors, stones, infection, and inflammation. The findings of this imaging revealed a cystic mass on the pancreas that is worrisome for cancer. The liver was also found to have suspicious abnormalities and the spleen and gallbladder again appeared enlarged. These findings are likely all contributing to her stomach pain and tenderness. The ultrasound of the abdomen that was done on 2/13/24 provided yet another type of imaging to visualize the liver, gallbladder, spleen, and kidneys. Because so many abnormalities were found in this patient and involved multiple abdominal organs, the physician likely wanted as many different views of the abdomen as possible. Finally, due to the suspicious abnormalities found on the liver from previous diagnostic tests, a guided ultrasound and liver biopsy was also performed and sent to pathology to see what type of disease may be affecting the liver.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2023). *Mosby's Diagnostic and Laboratory Test Reference* (16th ed.). Elsevier.

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

Home Medications (5 required)

Brand/Generic	**Norco (hydrocodone-acetaminophen)**	**Valium (diazepam)**	**Wellbutrin (bupropion HCL)**	**Cymbalta (duloxetine HCL)**	**Narcan (naloxone)**
Dose	5-325 mg tablet	10 mg tablet	150 mg XL tablet	60 mg capsule	2mg
Frequency	2 times daily, PRN	Every 6 hours PRN	Daily in the morning	Daily	PRN in emergency possible opioid overdose.
Route	Orally	Orally	Orally	Orally	Nasal spray inhalation
Classification	Pharmacologic: opioid and non-salicylate, para-aminophenol derivative combination Therapeutic: opioid analgesic and antipyretic non-opioid analgesic combination (Jones & Bartlett Learning, 2023).	Pharmacologic: Benzodiazepine Therapeutic: anticonvulsant, anxiolytic, sedative-hypnotic, skeletal muscle relaxant (Jones & Bartlett Learning, 2023).	Pharmacologic: Aminoketone Therapeutic: anti-depressant, smoking cessation adjunct (Jones & Bartlett Learning, 2023).	Pharmacologic: selective serotonin and norepinephrine reuptake inhibitor Therapeutic: anti-depressant, neuropathic and musculoskeletal pain reliever (Jones & Bartlett Learning, 2023).	Pharmacologic: opioid antagonist Therapeutic: antidote (Jones & Bartlett Learning, 2023).
Mechanism of Action	Hydrocodone binds to opioid receptors in the brain and spinal cord to block pain signals and acetaminophen blocks the enzyme cyclooxygenase which helps to stop pain impulses in the nervous system too (Jones & Bartlett Learning, 2023).	Enhances the effects of GABA neurotransmitters which work to calm the body and control emotional behavior. It also binds to benzodiazepine receptors in the limbic system which lessens anxiety (Jones & Bartlett Learning, 2023).	Stops the re-uptake of dopamine, norepinephrine, and serotonin by neurons which relieves symptoms of depression (Jones & Bartlett Learning, 2023).	Blocks the re-uptake of dopamine, serotonin, and norepinephrine and this can increase mood and inhibit pain signals (Jones & Bartlett Learning, 2023).	Rapidly and briefly competitively blocks mu, kappa, and sigma receptors in the CNS and reverses sedation, hypotension, and respiratory depression caused by opioids (Jones & Bartlett Learning, 2023).
Reason Client Taking	Severe pain	Anxiety	Depression	Anxiety, Depression, & Fibromyalgia	Available in case of suspected or known opioid overdose or respiratory depression from the patient taking hydrocodone.
Contraindications (2)	1. Severe liver disease/ impairment 2. Known or suspected gastrointestinal obstruction. (Jones & Bartlett Learning, 2023).	1. Acute angle-closure glaucoma 2. If also taking fluoxetine or omeprazole (Jones & Bartlett Learning, 2023).	1. Seizure disorders or conditions that increase the risk of seizures. 2. Use of another bupropion concurrently (Jones & Bartlett Learning, 2023).	1. Chronic liver disease 2. Glomerular filtration rate less than 30 ml/min (Jones & Bartlett Learning, 2023).	Aside from hypersensitivity to the drug there are no contraindications to the use of Narcan in an emergency situation (Jones & Bartlett Learning, 2023).

Side Effects/Adverse Reactions (2)	1. Respiratory depression 2. Hepatoxicity (Jones & Bartlett Learning, 2023).	1. Respiratory depression 2. Hypotension (Jones & Bartlett Learning, 2023).	1. Suicidal ideation 2. Arrhythmias (Jones & Bartlett Learning, 2023).	1. Hypertensive crisis 2. Acute pancreatitis (Jones & Bartlett Learning, 2023).	1. Ventricular tachycardia 2. Seizures (Jones & Bartlett Learning, 2023).
Nursing Considerations (2)	1. This patient is taking a benzodiazepine alongside hydrocodone and therefore her respiratory function should be monitored very closely for signs of respiratory depression and severe sedation. 2. Opioids should be used with caution with weak and elderly individuals and therefore vitals should be assessed thoroughly and frequently. (Jones & Bartlett Learning, 2023).	1. Monitor closely for adverse reactions especially if the patient has low albumin (like this patient does) as this increases the risk of severe sedation. 2. Instruct the patient that physical and psychological dependence can occur with this drug and educate about the signs of dependence. (Jones & Bartlett Learning, 2023).	1. Monitor kidney function labs closely in patients with renal disease as this drug is excreted by the kidneys. 2. Frequently assess blood pressure as this drug can cause hypertension . (Jones & Bartlett Learning, 2023).	1. Inspect the patient's skin and mucous membranes often because this drug can cause serious skin reactions like hives and blisters. 2. Monitor the patient's serum sodium level closely especially if the patient is elderly as this drug can lower sodium levels. (Jones & Bartlett Learning, 2023).	1. Know that the rapid reversal of opioid effects can cause sweating, nausea, vomiting, and possible dysrhythmias. 2. Be aware that with the significant reversal of analgesic effects the patient may become agitated or combative. (Jones & Bartlett Learning, 2023).

Hospital Medications (5 required)

Brand/Generic	**Zyloprim (allopurinol)**	**Augmentin (amoxicillin-clavulanate)**	**Tenormin (atenolol)**	**Rocaltrol (calcitriol)**	**Lovenox (enoxaparin)**
Dose	100 mg tablet	875 – 175 mg tablet	100 mg tablet	0.5 mcg tablet	40 mg injection
Frequency	Daily	2 times daily	Daily	Daily	Daily
Route	Orally	Orally	Orally	Orally	Subcutaneously
Classification	Pharmacologic: Xanthine oxidase inhibitor Therapeutic: antigout (Jones & Bartlett Learning, 2023).	Pharmacologic: aminopenicillin and beta-lactamase inhibitor. Therapeutic: antibiotic (Evans et al., 2023)	Pharmacologic: beta-adrenergic blocker Therapeutic: antianginal, antihypertensive (Jones & Bartlett Learning, 2023).	Pharmacologic: vitamin D analog Therapeutic: anti-hypocalcemic (Jones & Bartlett Learning, 2023).	Pharmacologic: low molecular weight heparin Therapeutic: anticoagulant (Jones & Bartlett Learning, 2023).
Mechanism of Action	Stops the production of uric acid by inhibiting the enzyme xanthine oxidase (Jones & Bartlett Learning, 2023).	Kills bacteria by binding to and blocking penicillin proteins of bacteria and this weakens the bacterial wall and causes it to die (Evans et al., 2023).	Blocks the stimulation of beta receptors sites mainly on the heart and this lowers cardiac output. It also helps decrease the release of renin which aids in lowering blood pressure (Jones & Bartlett Learning, 2023).	Binds to receptors in the intestines and causes increased calcium absorption from the intestines (Jones & Bartlett Learning, 2023).	Binds with antithrombin III and inactivates the clotting factor Xa and thrombin so fibrin and clots cannot be formed (Jones & Bartlett Learning, 2023).
Reason Client Taking	Gout/hyperuricemia (Jones & Bartlett Learning, 2023).	Diverticulitis and urinary tract infection (Evans et al., 2023) .	Hypertension (Jones & Bartlett Learning, 2023).	Hypocalcemia related to kidney disease. (Jones & Bartlett Learning,	To prevent deep vein thrombosis due to restricted mobility

				2023).	(Jones & Bartlett Learning, 2023).
Contraindications (2)	1. Use with caution in patients with kidney disease as this will affect the excretion of this drug. 2. Patients taking also amoxicillin should be monitored closely for increased risk of adverse reactions and skin rash. (Jones & Bartlett Learning, 2023).	1. Use with caution in patients who are on anticoagulants as the combination of these two drugs can prolong prothrombin time. 2. Use with caution for patients with hepatic dysfunction. (Evans et al., 2023)	1. Metabolic acidosis 2. Right ventricular heart failure secondary to pulmonary hypertension (Jones & Bartlett Learning, 2023).	1. Hypercalcemia 2. Also taking thiazide diuretics (Jones & Bartlett Learning, 2023).	1. Active bleeding such as a GI bleed 2. History of heparin-induced thrombocytopenia (Jones & Bartlett Learning, 2023).
Side Effects/Adverse Reactions (2)	1. Hepatic necrosis 2. Thrombocytopenia (Jones & Bartlett Learning, 2023).	1. Diarrhea 2. Skin rash (Evans et al., 2023)	1. Arrhythmias 2. Laryngospasm (Jones & Bartlett Learning, 2023).	1. Erythema multiforme 2. Pruritus (Jones & Bartlett Learning, 2023).	1. Atrial fibrillation 2. Melena (Jones & Bartlett Learning, 2023).
Nursing Considerations (2)	1. Review baseline CBC, uric acid level, renal tests, and liver tests prior to administering this medication. 2. Maintain fluid intake so that the patient produces a urinary output of 2 liters daily (Jones & Bartlett Learning, 2023).	1. Monitor the patient closely for diarrhea as this antibiotic can lead to *Clostridium difficile* infection. 2. Monitor hepatic and renal function labs closely for any changes (Evans et al., 2023).	1. Closely monitor the patients heart rate and blood pressure, watching for bradycardia and hypotension. 2. Be aware that this drug can mask tachycardia caused by low glucose in diabetic patients (Jones & Bartlett Learning, 2023).	1. Be alert for early signs of vitamin D toxicity such as bone pain, constipation, and metallic taste. 2. Warn the patient not to take any additional forms of Vitamin D (Jones & Bartlett Learning, 2023).	1. Monitor patients closely for any signs of bleeding especially if they have a history of active ulcerative GI disease. 2. Monitor prothrombin time labs routinely (Jones & Bartlett Learning, 2023).

Medications Reference (1) (APA):

Evans, J., Hanoodi, M., & Wittler, M. (2023, August 16). *Amoxicillin Clavulanate*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK538164/

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

Assessment

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

GENERAL: **Alertness:** noted **Orientation:** noted **Distress:** yes **Overall appearance:** appropriate given situation	Upon initial morning assessment this patient was lethargic and oriented to person, place, and time, but was somewhat confused about her situation. The patient was in some mild distress due to abdominal pain and would grimace when adjusting herself in bed. Her overall appearance was well-groomed, but she appeared very tired. Later in the day she was much more alert and was oriented x4.
INTEGUMENTARY: **Skin color:** pale, but appropriate for ethnicity **Character:** intact **Temperature:** warm **Turgor:** mild tenting **Rashes:** no **Bruises:** yes **Wounds:** no **Braden Score:** 20 **Drains present:** **Y☐** **N ☒** **Type:** N/A	Skin color was appropriate for ethnicity. Skin was warm and dry and skin turgor showed mild tenting likely related to mild dehydration and older age. Skin of the legs were dry and flaky. There were no rashes, or lesions, but there was fairly significant bruising of the forearm and antecubital areas of both the right and left arm from IV insertions. There was no bruising related to her recent fall. Normal quantity, distribution, and texture of hair for gender. Nails were without clubbing or cyanosis and capillary refill was less than 3 seconds for fingers and toes bilaterally.
HEENT: **Head/Neck:** noted **Ears:** noted **Eyes:** wears glasses **Nose:** noted **Teeth:** has dentures for both top and bottom teeth	**Head and neck** are symmetrical and the trachea is midline without deviation. Carotid pulses were both 2+ bilaterally and there was no sign of jugular vein distention or lymphadenopathy in the head or neck. **Eyes:** white sclera bilaterally, bilateral corneas slightly cloudy, and bilateral pink, moist, conjunctiva with no visible drainage from eyes. Pupils were equal, round, and reactive to light and accommodation bilaterally. EOMs intact bilaterally. Patient wears glasses. **Ears**: there were no visible or palpable deformities, lumps, or lesions on the ears and hearing is intact. **Nose**: the septum is midline; the turbinates are moist and pink bilaterally and there is no visible bleeding or polyps. Bilateral frontal sinuses are nontender to palpation. **Mouth**: Oral mucosa is pink, moist, and intact. The tongue and uvula are midline. Hard palate is intact. Patient uses both top and bottom dentures. Quality of speech without dentures is difficult to understand at times.
CARDIOVASCULAR: **Heart sounds:** noted **S1, S2, S3, S4, murmur etc.**	S1 and S2 sounds were clear at all locations with an overall regular rate and rhythm. No signs of murmurs, gallops, or rubs and no S3 or S4 sounds

Cardiac rhythm (if applicable): **Peripheral Pulses:** 2+ **Capillary refill:** less than 3 seconds **Neck Vein Distention:** **Y** ☐ **N** ☒ **Edema Y** ☒ **N** ☐ **Location of Edema:** Bilateral ankles and feet	present. The apical pulse was palpable at the 5th intercostal space and left midclavicular line. Client's peripheral pulses were even and 2+ throughout bilaterally. Capillary refill was also less than 3 seconds bilaterally in fingers and toes. There was slight +1 bilateral edema of the ankles and feet.
RESPIRATORY: **Accessory muscle use:** **Y**☐ **N** ☒ **Breath Sounds: Location, character**	Normal rate and pattern of respirations. The respirations are symmetrical and breathing is non-labored. Lung sounds appeared slightly diminished in the bases likely due to being on bed rest but no wheezes, crackles, or rhonchi noted.
GASTROINTESTINAL: **Diet at home:** regular **Current Diet:** mechanical soft **Height:** 5'7" (170.81 cm) **Weight:** 183 lbs (83 kg) **Auscultation Bowel sounds:** noted **Last BM:** 2/19/24 **Palpation: Pain, Mass etc.:** tenderness **Inspection:** **Distention:** no **Incisions:** no **Scars:** surgical scar **Drains:** no **Wounds:** no **Ostomy:** **Y** ☐ **N** ☒ **Nasogastric:** **Y** ☐ **N** ☒ **Size:** **Feeding tubes/PEG tube** **Y** ☐ **N** ☒ **Type:**	The patient states to eat a regular diet at home but is currently on a mechanical soft diet due to diverticulitis flare up. Bowel sounds are normoactive in all four quadrants. Last bowel was this morning (2/19/24) small and formed. There are no lesions, bruising or rashes present, but there is a surgical scar from a hysterectomy. No signs of abdominal distension. The abdomen is slightly rigid with severe tenderness upon palpation particularly on the right lower and upper quadrants.
GENITOURINARY: **Color:** dark yellow **Character:** clear **Quantity of urine:** 250 mL, normal **Pain with urination:** **Y** ☐ **N** ☒ **Dialysis:** **Y** ☐ **N** ☒ **Inspection of genitals:** normal **Catheter:** **Y** ☐ **N** ☒ **Type:** **Size:**	Patient is continent and able to use the beside commode with assistance. Patient urinated 250 mL of dark yellow urine during the 6 hours the student was on the unit. Dark yellow urine is likely related to her poor kidney function as well as the fact that she currently has a UTI. No signs of vaginal irritation noted.
MUSCULOSKELETAL: **Neurovascular status:** hypertension,	All extremities have full range of motion. Hand grips were strong and equal bilaterally. Pedal

diabetic, hyperlipidemia, kidney disease **ROM:** active **Supportive devices:** walker and wheelchair **Strength:** slightly diminished, but equal **ADL Assistance:** **Y**☒ **N** ☐ **Fall Risk:** **Y** ☒ **N**☐ **Fall Score: 86, high** **Activity/Mobility Status: inactive** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☒ **Needs support to stand and walk** ☒	pushes and pulls were slightly diminished 4/5 bilaterally. Patient is able to follow commands. The patient complains of fatigue and weakness likely related to her diverticulitis and kidney disease. She is mostly inactive and has not been getting out of bed or cooperating well with physical therapy. The patient states to use a walker and wheelchair at times at home. She is currently a one person assist with ambulation, has an unsteady gait, and is a high fall risk. The patient also has a medical history that includes hypertension, hyperlipidemia, diabetes, and kidney disease which affect vascular function.
NEUROLOGICAL: **MAEW:** **Y** ☐ **N**☒ **PERLA:** **Y** ☒ **N**☐ **Strength Equal:** **Y** ☒ **N** ☐ **if no -** **Legs** ☐ **Arms** ☐ **Both** ☐ **Orientation:** noted **Mental Status:** noted **Speech:** noted **Sensory:** normal **LOC:** noted	Upon initial morning assessment this patient was lethargic and oriented to person, place, and time, but was somewhat confused about her situation. Later in the day she was much more alert and was oriented x4. Aside from occasional confusion, she has normal cognition and developmental level for age. Strength is equal bilaterally and she can move her upper extremities well. She has an unbalanced gait and her leg strength is slightly diminished. No signs of facial asymmetry and PERRLA is intact. The patient stated that she frequently gets “pins and needles” in her legs and feet which she attributes to a spinal surgery she had.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** noted **Developmental level:** Ego integrity vs despair **Religion & what it means to pt.:** noted **Personal/Family Data (Think about home environment, family structure, and available family support):** noted	This patient lives alone and stated that she does not have family or friends nearby. She does, however, have a home health aide that comes to help her 4 days a week. She is worried about what her next steps after leaving the hospital will be and is feeling very anxious about the thought of having to go to a long-term care facility. The patient made no mention of religious affiliation and appears lonely.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
09:10	62 bmp	119/77 mmHg	14 bmp	97.0 ℉ temporal	92% room air

12:18	73 bmp	142/71 mmHg	16 bmp	96.7 ℉ temporal	93% room air

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
09:10	Numeric Rating Pain Scale	Abdomen	8/10	Stabbing	NORCO (5mg hydrocodone, 325mg acetaminophen)
12:18	Numeric Rating Pain Scale	Abdomen	5/10	Dull, constant	Comfort measures (adjusted head of bed and pillows)

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22 G **Location of IV:** Right forearm, antecubital **Date on IV:** 2/18/24 **Patency of IV:** normal **Signs of erythema, drainage, etc.:** there is a great deal of bruising around the IV site, but no drainage. Patient denies pain with IV site. **IV dressing assessment:** clean, dry, intact	0.9% sodium chloride 1000mL running continuously at 75mL/hr

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
08:30: 360 mL water 11:30: 1,000 mL 0.9% sodium chloride finished infusing	06:00: 150 mL urine -beside commode 09:00: 100 mL urine -beside commode Bowel Movement x1 in the morning, small and

	formed.

Nursing Care

Summary of Care (2 points)

Overview of care: The student nurse arrived on the unit at 07:00 and began gathering patient information from the electronic medical record. Afterwards, the student introduced themself to the patient and took her 07:00 vitals. The patient tolerated this well but was lethargic. The patient's IV site was also examined and found to be patent, though there was extensive bruising on both forearms due to IV sites. Later that morning, the student passed medications to this patient, including her enoxaparin injection and Norco, under the supervision of the nurse. After about 30 minutes the student re-evaluated the patient's pain level and it had come down from an 8/10 to a 5/10. Around this time the student also assisted the patient in ambulating to the bedside commode and then charted 100 mL of urine output. The student assisted the patient back to bed and provided comfort measures such as adjusting the head of the bed, pillows, and lighting. At 12:15 the student completed a head-to-toe physical exam and the patient tolerated this well but was found to still have a great deal of abdominal tenderness. Lastly, the findings of the physical assessment were reported to the nurse and the nurse was thanked for her teaching efforts that day.

Procedures/testing done: None during shift.

Complaints/Issues: The patient complained that her stomach pain was unresolved. She was also unhappy with her mechanical soft diet and felt that she was not getting enough to eat because of it.

Vital signs (stable/unstable): The vital signs were slightly unstable in this patient with an increasing blood pressure and several abnormal lab values.

Tolerating diet, activity, etc.: The patient is unhappy with her mechanical soft diet, though she is eating all of the food given to her. She is hesitant to get out of bed and not very cooperative with physical therapy.

Physician notifications: None during the shift.

Future plans for client: Increase cooperation with physical therapy and increase ambulation to be able to discharge to home.

Discharge Planning (2 points)

Discharge location: To be determined. The patients wishes to go home, but case management may recommend a long-term care facility due to lack of support at home.

Home health needs (if applicable): Physical therapy and assistance with ADLs.

Equipment needs (if applicable): Walker and wheelchair at times.

Follow up plan: Continue to work with physical therapy. Schedule follow up appointments to discuss results of liver biopsy.

Education needs: Management of diverticulosis – diet with fiber rich foods like whole grains to help avoid inflammation. Management of kidney failure – be consistent with blood pressure medications. Management of liver function – avoid medications like acetaminophen that can further damage the liver. Importance of a physical activity regime – to improve strength and gait as well as to promote pulmonary and vascular functioning.

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 pertinent to this client	**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.
1. Acute pain related to a biological injury to the colon as evidenced by severe abdominal pain and tenderness upon palpation, patient grimacing when moving in bed, and patient rating pain an 8/10 (Phelps, 2023).	This diagnosis was chosen and highly prioritized because the patient was consistently struggling with abdominal pain related to her diagnoses of diverticulitis. She would grimace to re-adjust herself in bed and complained of a stabbing pain in her lower abdomen. Her abdomen was also very tender upon palpation. A pain rating of 8/10 is considered severe and acute pain can cause other complications such as increased heart rate, respirations, and BP. If not addressed, uncontrolled pain	1.Promptly administer pain medication according to provider orders and return to the patient in 30 minutes to reassess for effectiveness (Phelps, 2023). 2.Help the patient into a comfortable position and use pillows to support painful areas (Phelps, 2023).	1. Patient will state satisfaction with pain management regime and express relief from pain within a reasonable time after intervention (Phelps, 2023).	The patient was compliant with the pain management regime and tolerated interventions well. 30 minutes after administration of the pain medications the patient stated that her pain level was now a 5 out of 10 and that the pain was more tolerable. Her pillows were then re-adjusted behind her back and head to better support her abdomen and she was thankful for this intervention. It appears that the current pain management regime is working

	can lead to delayed healing times and difficulty performing ADLs as well. This patient was hesitant to get out of bed and work with physical therapy due to her pain.			okay but may need to be evaluated to provide further pain relief.
2. Impaired physical mobility related to physical deconditioning as evidenced by diminished lower extremity strength, unsteady gait, chronic fatigue, and high fall score of 86 (Phelps, 2023).	This diagnosis was chosen because this patient has several co-morbidities including kidney disease, type II diabetes, and possible liver and pancreatic dysfunction. She also complained of constant fatigue, likely related to the aforementioned co-morbidities and this is leading her to live a very in-active lifestyle. This inactivity is resulting in her becoming weaker and this puts her at great risk for further complications such as falls, pressure injuries, and pneumonia.	1. Provide progressive mobilization to the limits of the patient's condition (Phelps, 2023). 2.Refer the patient to a physical therapist for the development of a mobility regime that can be followed at home (Phelps, 2023).	1. Patient will carry out mobility regime suggested by physical therapy every day until discharge (Phelps, 2023).	The patient was not very compliant with the mobility regime. She verbalized her understanding of the importance of physical activity for her health but was resistant with efforts to ambulate more frequently. The nurse was able to ambulate the patient to her chair and to the bathroom once during the shift. The use of other assistive devices such as a bed trapeze may be helpful in assisting her to sit up better in bed when getting ready to ambulate. Continued encouragement to work with physical therapy is also

				recommended.
3. Risk for imbalanced fluid volume related to renal and hepatic dysfunction as evidenced by dark concentrated urine, low GFR, low serum albumin, increased serum creatinine, bilirubin and AST, and mild peripheral edema (Phelps, 2023).	This diagnosis was chosen because this patient has a history of stage 4 kidney disease and based upon diagnostic findings likely also has liver disease. The kidneys and liver are both very important in maintaining proper fluid balance and a low GFR, low albumin, and high creatinine signals that this patient's fluids are not properly balanced. This can lead to further problems such as unbalanced electrolytes, edema, hypertension, and eventually heart failure as the body tries to compensate for the failing kidneys and liver.	1.Monitor vital signs and other assessment parameters frequently such as heart rate, blood pressure, and breath sounds (Phelps, 2023). 2. Collect and evaluate serum electrolyte levels frequently (Phelps, 2023).	1. By the time of discharge the patient will be hemodynamically stable and without electrolyte imbalance (Phelps, 2023).	The patient was very tolerant of frequent vital signs and physical assessments. She was also compliant with blood draws to check serum electrolytes though said that the bruises from IV sticks were starting to hurt. By discharge the patient's urine was less dark and labs were free of electrolyte imbalance aside from a slightly elevated chloride level. The patient was able to verbally state signs of fluid imbalance and said she would notify her provider if any changes occurred.

Other References (APA):

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

Concept Map (20 Points):

Subjective Data

- Pain rated 8/10
- "Stabbing" intermittent, dull constantly
- Only rest makes pain better.
- Does "not feel well" lately
- Patient stated to have had several falls recently.

Objective Data

- Client is A/O x 4 but A/O x 3 at times with confusion about her situation.
- Vitals: taken at 12:18
  - Temp: 96.7°F
  - HR: 73
  - RR: 16
  - BP: 142/71
  - O2: 93%
- Labs: 20 abnormal labs mostly related to kidney and liver function as well as a UTI
  - Decreased RBC, Hgb, & Hct
  - Increased WBCs
  - Increased creatinine
  - Increased bilirubin, AST, and alk phos
  - Decreased albumin
  - E. coli in urine sample
- Diagnostics:
  - CT showed diverticulosis, enlarged spleen and gallbladder, liver lesions, pancreatic mass, and bilateral atelectasis.
  - MRCP, and ultrasounds showed similar results to CT
- Assessments:
  - Severe abdominal tenderness
  - Unsteady gait and generalized weakness.
  - Significant bruising from IV sites.
  - Mild peripheral edema.

Client Information

- 75-year-old white female
- 5'7" tall and 183 pounds
- Presented to ED with N/V and severe stomach pain.
- Diagnosed with diverticulitis as well as a pancreatic mass, liver lesions, and a UTI.
- Mechanical soft diet
- Some medical history includes kidney disease, hypertension, DMII, anxiety+depression, osteoarthritis, anemia, and GERD.

Nursing Diagnosis/Outcomes

1. Acute pain related to a biological injury to the colon as evidenced by severe abdominal pain and tenderness upon palpation, patient grimacing when moving in bed, and patient rating pain an 8/10 (Phelps, 2023).
   - Patient will state satisfaction with pain management regime and express relief from pain within a reasonable time after intervention (Phelps, 2023).
2. Impaired physical mobility related to physical deconditioning as evidenced by diminished lower extremity strength, unsteady gait, chronic fatigue, and high fall score of 86 (Phelps, 2023).
   - Patient will carry out mobility regime suggested by physical therapy every day until discharge (Phelps, 2023).
3. Risk for imbalanced fluid volume related to renal and hepatic dysfunction as evidenced by dark concentrated urine, low GFR, low serum albumin, increased serum creatinine, and mild peripheral edema (Phelps, 2023).
   - By the time of discharge the patient will be hemodynamically stable and without electrolyte imbalance (Phelps, 2023).

Nursing Interventions

1A: Promptly administer pain medication according to provider orders and return to the patient in 30 minutes to reassess for effectiveness (Phelps, 2023).
1B: Help the patient into a comfortable position and use pillows to support painful areas (Phelps, 2023).

2A:Provide progressive mobilization to the limits of the patient's condition (Phelps, 2023).
2B: Refer the patient to a physical therapist for the development of a mobility regime that can be followed at home (Phelps, 2023).

3A: Monitor vital signs and other assessment parameter frequently such as heart rate, blood pressure, and breath sounds (Phelps, 2023).
3B: Collect and evaluate serum electrolyte levels frequently (Phelps, 2023).