N431 Care Plan #1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 10/10/21	**Patient Initials** C.A.S	**Age** 72 y.o.	**Gender** Female
Race/Ethnicity White/Caucasian	**Occupation** High School Secretary	**Marital Status** Widowed	**Allergies** Morphine: Vomiting
Code Status Full Code	**Height** 5’4”	**Weight** 158 lbs.	

Medical History (5 Points)

Past Medical History: Acute pancreatitis, Coronary artery disease, Type 2 diabetes mellitus, Elevated cholesterol (hypercholesterolemia), Heart disease, Hyperlipidemia, Hypertension, and Neuropathy

Past Surgical History: Coronary artery bypass graft, Right carotid endarterectomy, Open heart surgery, Cardiac stent, and Small bowel resection

Family History: The patient has a maternal family history of Alzheimer’s disease and paternal history of prostate cancer. The patient reports that her parents are both deceased. The patient’s sister had a history of breast cancer and is also deceased.

Social History (tobacco/alcohol/drugs): The patient reports smoking half of a pack of cigarettes per day since she was fifteen and only drinks alcohol during family gatherings, such as holidays or family reunions. The patient reports only drinking one to two beers during these gatherings. The patient denies the use of recreational drugs upon questioning.

Assistive Devices: Upon questioning, the patient denies using any assistive devices, such as a walker, wheelchair, or cane, to assist with ambulation.

Living Situation: The patient reports living in a one-story home with her two daughters, one granddaughter, and six dogs.

Education Level: The patient reports attending two years of college but did not acquire any degrees during this time.

Admission Assessment

Chief Complaint (2 points): Weakness and low blood pressure

History of present Illness (10 points):

The patient presenting to the Clinton Union Hospital emergency room is a 72-year-old female with a past medical history of coronary artery disease, hypertension, acute pancreatitis, type 2 diabetes mellitus, hyperlipidemia, neuropathy, and heart disease. The patient presents with a chief complaint of weakness and low blood pressure that began approximately four days ago. The patient was brought in and accompanied by her two daughters. Upon arrival, the patient also complained of pain in the right upper quadrant of her abdomen with accompanied nausea and vomiting. The patient reported that her right upper quadrant pain began at home around two o'clock in the afternoon after eating lunch and was sharp, aching, and intermittent. The patient also reported that the pain was accompanied by two episodes of vomiting. The patient stated that she took pain medication at two o'clock to help relieve the pain. The pain was not reduced by five o'clock, so her daughters brought her into the emergency room for further evaluation. Upon questioning, the patient denied the presence of diarrhea, difficulty with urination, and fever. Shortly after arrival and initial assessments were performed, the patient underwent a CT scan of the abdomen and pelvis. As a result, inflammation of the gallbladder, gallstones, and a thick gallbladder wall were all visualized. These findings led to the patient's primary diagnosis of acute cholecystitis. The following morning, on 10/10, the patient was transferred and admitted to Union Hospital in Terra Haute to consult with a surgeon about removing her gallbladder. Later that morning, the patient underwent a laparoscopic cholecystectomy.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Acute Cholecystitis

Secondary Diagnosis (if applicable): N/A

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

Cholecystitis is a condition where the gallbladder becomes inflamed because gallstones are stuck in the cystic duct (Capriotti, 2020). As the gallbladder enlarges, blood flow to this organ decreases, leading to ischemia and eventual tissue necrosis. In addition, as the gallbladder widens, it begins to cause nerve pain in the gallbladder wall, which can lead to severe discomfort for the individual (Capriotti, 2020). There are multiple risk factors for developing cholecystitis. These risk factors include being of the female gender, over forty years of age, administering cholesterol-lowering medications, and genetics (Capriotti, 2020). Before the patient became diagnosed with acute cholecystitis, she was at high risk for development because of her age, gender, and prescription for cholesterol-rosuvastatin.

Typical signs and symptoms seen in an individual with cholecystitis include pain in the right upper quadrant of the abdomen, pain that radiates to the right shoulder or back, nausea, vomiting, heartburn, and fever (Capriotti, 2020). Upon arrival to the Clinton Union Hospital emergency room, the patient complained of pain in the right upper quadrant of her abdomen with accompanying nausea and vomiting. At this time, the patient denied the presence of a fever. When performing my head-to-toe assessment on the patient, which was post-cholecystectomy, she denied the existence of pain in her abdomen, nausea, and vomiting.

In addition to common symptoms experienced with cholecystitis, an individual's AST, ALT, ALP, bilirubin, white blood cell count will be elevated with this condition. AST, ALT,

ALP, and bilirubin are part of the liver function test (Capriotti, 2020). Upon admission and before cholecystectomy surgery, the patient's AST, ALT, ALP, bilirubin, and white blood cell levels were tested, among many other labs. The reference range for AST is 0-40 IU/L, ALT is 0-32 IU/L, ALP is 48-121 IU/L, bilirubin is 0.0-1.2 mg/dL, and the white blood cell count is 4.5-10.8 k/cumm. The patient's AST level on admission was 250 IU/L, while her ALT level was 170 IU/L. The patient's alkaline phosphatase level on admission was 84 IU/L, which is within the normal range. On admission, the patient's bilirubin level was 1.3 mg/dL, and white blood cell count was 11.8 k/cumm. Since elevations in these specific labs are commonly seen in individuals with cholecystitis, the patient's elevated readings of these labs on admission confirm that she had an active case.

Diagnostic testing used to identify the presence of cholecystitis include lab tests, such as bilirubin, white blood cell count, and liver enzymes (Capriotti, 2020). As mentioned above, these lab tests will be elevated in the presence of cholecystitis. Other diagnostic tests used to confirm cholecystitis include CT scans and abdominal ultrasounds (Capriotti, 2020). Abdominal ultrasounds are the predominant diagnostic procedure of choice for assessing the gallbladder because it allows the healthcare team to visualize gallbladder wall thickening, gallstones, and gallbladder enlargement. ERCPs and CT scans are typically performed when other diagnostic studies have been unable to properly visualize the gallbladder and any abnormalities and confirm cholecystitis (Capriotti, 2020).

This patient's cholecystitis was diagnosed upon a CT scan of the abdomen and pelvis at Clinton Union Hospital. The patient's gallbladder was enlarged during the CT scan, gallstones were visualized, and the gallbladder wall appeared thick. When the patient was transferred to Terra Haute Union Hospital, labs were drawn. The results of these labs further confirmed the

patient's diagnosis of cholecystitis. As mentioned above, significant elevations in specific liver enzymes, white blood cell count, and bilirubin were visualized.

The treatment of choice for cholecystitis with gallstones is laparoscopic cholecystectomy (Capriotti, 2020). During a laparoscopic cholecystectomy procedure, the patient is placed under general anesthesia. The performing surgeon makes at least three to four incisions in the abdominal wall around the umbilicus. Before performing the procedure, a large amount of carbon dioxide is blown into the abdominal cavity to aid the performing surgeon with visualizing the gallbladder and biliary system with a laparoscope through the abdominal wall incisions. The laparoscope has a camera attached to it so the surgeon or surgeons performing the surgery can visualize the gallbladder and the biliary system on a nearby monitor (Hinkle & Cheever, 2018). During the procedure, gallstones are removed from the cystic duct. Gallstones are also removed from the common bile duct if an ultrasound confirms their presence in the common bile duct. After gallstone removal, the gallbladder is then removed through one of the abdominal wall incisions made around the umbilicus (Hinkle & Cheever, 2018). When the patient arrived in Terra Haute, she met with a surgeon to discuss surgical options. Shortly after the consultation, the patient underwent a laparoscopic cholecystectomy. Post-cholecystectomy, the patient is being treated with lactated ringers solution for fluid replacement and heparin injections to prevent the development of post-surgical blood clots. There were no therapy orders for the patient after laparoscopic surgery.

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.

Laboratory Data (15 points)

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value

RBC	3.90-5.40 million/cumm	4.06 million/cumm	3.66 million/cumm	The patient's red blood cell count is slightly low due to being NPO ever since her surgery three days ago. She has not received proper vitamins and minerals such as vitamin B12 and iron. Therefore, her red blood cell count will begin to diminish. The patient is also having her blood volume be replenished through IV fluids, which can also cause her RBC count to decrease (Pagana & Pagana, 2018).
Hgb	12-16 GM/dL	13 GM/dL	11.6 GM/dL	The patient's hemoglobin levels are slightly low because she is being administered aspirin while in the hospital. Aspirin is a medication that can cause hemoglobin levels to fall below the normal range. Hemoglobin levels are also an indirect reflection of red blood cell numbers, so, therefore, if red blood cell numbers are decreased, hemoglobin will be reduced. Hemoglobin levels can also be reduced due to the negative effect of fluid replenishment through an IV and dietary deficiency, such as iron, on red blood cell numbers (Pagana & Pagana, 2018).
Hct	36-48%	38.7%	35.3%	The patient's hematocrit levels are slightly low due to the same reasons the hemoglobin levels are low, minus aspirin administration. Hematocrit levels are low because the red blood cell count is low. Hematocrit levels are also reduced due to the negative effect of fluid replenishment through an IV and dietary deficiency, such as iron, on RBC numbers (Pagana & Pagana, 2018).

Platelets	150,000-450,000 k/cumm	179,000 k/cumm	139,000 k/cumm	The patient's platelet levels are low because she receives subcutaneous heparin injections and clopidogrel by mouth, which keeps the blood from clotting. The patient is also receiving hydralazine, which can also cause platelet levels to fall. The patient is also receiving fluid replenishment through an IV, which can further decrease the platelet count. IV fluid replenishment can also take longer for platelet counts to return to normal limits, especially after surgical blood loss. Lastly, since the patient is NPO, she is not receiving specific vitamins such as vitamin B12. Vitamin B12 is essential for platelet production (Pagana & Pagana, 2018).
WBC	4.5-10.8 k/cumm	11.8 k/cumm	7.4 k/cumm	
Neutrophils	55%-70%	76.6%	55.7%	
Lymphocytes	20%-40%	18.6%	37.2%	
Monocytes	2%-8%	3.2%	4.5%	
Eosinophils	1%-4%	1.0%	1.9%	
Bands	< or = to 10%	N/A	N/A	

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
Na-	134-144 mmol/L	136 mmol/L	139 mmol/L	
K+	3.5-5.2 mmol/L	4.61 mmol/L	5.14 mmol/L	

Cl-	96-106 mmol/L	100 mmol/L	101 mmol/L	
CO2	20-29 mmol/L	25.9 mmol/L	21.1 mmol/L	
Glucose	65-99 mg/dL	186 mg/dL	181 mg/dL	The patient's blood glucose levels are high due to her past medical history of type 2 diabetes mellitus and acute pancreatitis. This patient is also taking rosuvastatin, which increases blood glucose levels (Pagana & Pagana, 2018).
BUN	8-27 mg/dL	18 mg/dL	20 mg/dL	
Creatinine	0.57-1.00 mg/dL	1.10 mg/dL	1.32 mg/dL	Creatinine levels are elevated due to the patient's past medical history of type 2 diabetes mellitus, coronary artery disease, hypertension, hypercholesterolemia, heart disease, and hyperlipidemia. In type 2 diabetes mellitus, if blood sugar levels get too high, the kidneys can become damaged, which leads to elevated creatinine levels (Sherrell, 2021). Hypertension can cause damage to the blood vessels of the kidneys, making the kidneys malfunction, leading to high serum creatinine levels (Sherrell, 2021). Hypercholesterolemia, hyperlipidemia, and CAD are all categorized as heart disease. Since these conditions affect the heart, the kidneys are also negatively affected. As a result, the kidneys will begin to malfunction, leading to elevated serum creatinine levels (Sherrell, 2021).
Albumin	3.7-4.7 GM/	3.8 GM/dL	3.7 GM/	

	dL		dL	
Calcium	8.6-10.3 mg/dL	9.1 mg/dL	8.8 mg/dL	
Mag	1.6-2.3 mg/dL	N/A	N/A	
Phosphate	3.0-4.3 mg/dL	N/A	N/A	
Bilirubin	0.0-1.2 mg/dL	1.3 mg/dL	0.9 mg/dL	
Alk Phos	48-121 IU/L	84 IU/L	130 IU/L	The patient's alkaline phosphatase levels are increased due to gallstones being left behind after the patient's cholecystectomy. These gallstones block bile ducts, causing bile to be backed up into the liver, leading to an elevated serum alkaline phosphatase level (Pagana & Pagana, 2018).

AST	0-40 IU/L	250 IU/L	125 IU/L	Previously, the patient's serum AST levels were elevated primarily due to her primary diagnosis of acute cholecystitis. Postoperatively, the patient's AST levels can be high for a multitude of reasons. The patient's serum AST levels remain elevated after a cholecystectomy when gallstones are left behind and obstruct bile ducts. This obstruction causes bile to be backed up into the liver, leading to a high serum AST level (Pagana & Pagana, 2018). Another reason is that the patient has a past medical history of acute pancreatitis. The patient is also taking aspirin, heparin, and multiple blood pressure-reducing medications. Anticoagulants, antihypertensives, and salicylates are all classes of drugs known to increase serum AST levels. (Pagana & Pagana, 2018).

ALT	0-32 IU/L	170 IU/L	220 IU/L	Previously, the patient's serum ALT levels were elevated primarily due to her primary diagnosis of acute cholecystitis. Postoperatively, the patient's ALT levels can be high for a multitude of reasons. The patient's serum ALT levels remain elevated after a cholecystectomy when gallstones are left behind and obstruct bile ducts. This obstruction causes bile to be backed up into the liver, leading to a high serum ALT level (Pagana & Pagana, 2018). The patient's ALT levels are also increased because they take aspirin, a salicylate. Salicylates are a class of medications known to naturally increase serum ALT levels. The patient's ALT levels are also increased because she has a past medical history of acute pancreatitis. (Pagana & Pagana, 2018).
Amylase	30-220 Units/L	N/A	N/A	
Lipase	0-160 Units/L	N/A	N/A	
Lactic Acid	Venous Blood: 5-20 mg/dL Arterial Blood: 3-7 mg/dL	N/A	N/A	
Troponin	0.000-0.070 ng/mL	< 0.030	N/A	
CK-MB	0%	N/A	N/A	
Total CK	24-173 Units/L	N/A	N/A	

Chemistry 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	0.9-1.2	1.0	N/A	
PT	9.1-12.0 seconds	10.1 seconds	N/A	
PTT	24-33 seconds	25.8 seconds	N/A	
D-Dimer	<0.4 mcg/mL	N/A	N/A	
BNP	< 100 ng/L	N/A	N/A	
HDL	>55 mg/dL	N/A	N/A	
LDL	<130 mg/dL	N/A	N/A	
Cholesterol	<200 mg/dL	N/A	N/A	
Triglycerides	35-135 mg/dL	N/A	N/A	
Hgb A1c	4.8-5.6%	7.1%	N/A	The patient's hemoglobin A1c levels are elevated because she has a past medical history of type 2 diabetes mellitus and acute pancreatitis (Pagana & Pagans, 2018). On admission, the patient's blood glucose level was 186 mg/dL and 181 mg/dL during the clinical time. Considering that the average blood glucose range per Union Hospital is 65-99 mg/dL, these readings indicate that the patient's blood sugar is poorly controlled. Therefore, the patient's Hgb A1c levels will be elevated above normal.
TSH	0.450-4.500 mclU/mL	N/A	N/A	

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

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	Low/light yellow; low clear	Yellow and clear	N/A	
pH	5-7	7	N/A	
Specific Gravity	1.001-1.030	1.015	N/A	
Glucose	Low negative	Negative	N/A	
Protein	Low negative	Negative	N/A	
Ketones	Low negative	Negative	N/A	
WBC	0-5/high power field	0-2	N/A	
RBC	0-2/high-power field	0-2	N/A	
Leukoesterase	Low negative	Negative	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	7.35-7.45	N/A	N/A	
PaO2	80-100 mmHg	N/A	N/A	
PaCO2	35-45 mmHg	N/A	N/A	
HCO3	21-28 mEq/L	N/A	N/A	
SaO2	95-100%	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	Negative	N/A	N/A	
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Negative	N/A	N/A	
Stool Culture	Negative	N/A	N/A	

Lab Correlations Reference (1) (APA):

Pagana, T. J., & Pagana, K. D. (2018). *Mosby's manual of diagnostic and laboratory tests* (6th ed.). Elsevier -Health Sciences Division.

Sherrell, Z. (2021, February 26). *High creatinine levels: Causes, symptoms, and when to seek help*. Medical News Today.

https://www.medicalnewstoday.com/articles/when-to-worry-about-creatinine-levels#symptoms

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

The only other diagnostic procedure performed during the patient's hospital stay was an abdominal ultrasound. It was completed on 10/13/2021 at 0909.

Diagnostic Test Correlation (5 points):

An abdominal ultrasound allows the healthcare team to visualize the gallbladder, bile ducts, and any signs of inflammation or bile flow blockage. This procedure is primarily performed to diagnose acute cholecystitis in individuals that report pain in the right upper quadrant of the abdomen (Pagana & Pagana, 2018). An abdominal ultrasound was performed on this patient three days after their cholecystectomy. The ultrasound was performed three days after the cholecystectomy because the patient's liver function tests remained elevated post-cholecystectomy. During the ultrasound, the gallbladder was not visualized. However, the common bile duct measured 8 mm in diameter, indicating that gallstones were left behind after the cholecystectomy was performed. This finding correlates with why the patient's serum ALT, AST, and alkaline phosphatase levels remain elevated.

Diagnostic Test Reference (1) (APA):

Pagana, T. J., & Pagana, K. D. (2018). *Mosby's manual of diagnostic and laboratory tests* (6th ed.). Elsevier -Health Sciences Division.

Current Medications (10 points, 1 point per completed med)

10 <u>different</u> medications must be completed

Brand/Generic	Glucophage (metformin hydrochloride)	Coreg (carvedilol)	Vitamin D3 (cholecalciferol)	Plavix (clopidogrel bisulfate)	Crestor (rosuvastatin calcium)
Dose	1,000 mg	3.125 mg	1,000 units (25 mcg)	75 mg	20 mg
Frequency	QHS	BID	Once daily	Once daily	QHS
Route	PO	PO	PO	PO	PO
Classification	Biguanide; Antidiabetic	Nonselective beta blocker and alpha-1 blocker; Antihypertensive, heart failure treatment adjunct	Vitamin D analog; Dietary supplement; fat-soluble vitamin	P2Y12 platelet inhibitor; platelet aggregation inhibitor	HMG-CoA reductase inhibitor; Antilipemic

Mechanism of Action	Metformin hydrochloride allows more glucose to be stored in the liver as glycogen. This medication also increases the number of insulin receptors available per cell membrane, making these cells more sensitive to insulin. Lastly, metformin hydrochloride also assists in lowering serum cholesterol levels (Jones & Bartlett Learning, 2020).	Carvedilol causes dilation of the blood vessels, reduces resistance in the peripheral vascular system, and reduces cardiac output. As a result, blood pressure is reduced (Jones & Bartlett Learning, 2020).	Cholecalciferol, or vitamin D3, helps the body increase the uptake or absorption of calcium by the intestines (Jones & Bartlett Learning, 2020).	Clopidogrel binds to ADP receptors found on platelets, preventing fibrinogen from attaching to the receptors. This action prevents platelets from forming clots (Jones & Bartlett Learning, 2020).	Rosuvastatin inhibits HMG-CoA reductase. Rosuvastatin works by slowing the body's cholesterol production, which in turn reduces the amount of cholesterol on the arterial walls that prevent proper blood flow to the heart (Jones & Bartlett Learning, 2020).
Reason Client Taking	Blood sugar maintenance	Hypertension	Supplement	Clot prevention from previous surgeries	Elevated cholesterol, hyperlipidemia, and CAD

Contraindications (2)	Those with an allergy to metformin or a glomerular filtration rate of less than 30 mL/min. This is seen with advanced renal disease (Jones & Bartlett Learning, 2020).	Those with asthma, hypersensitivity to carvedilol, and severe hepatic impairment (Jones & Bartlett Learning, 2020).	Those with an allergy to cholecalciferol or vitamin D, renal calculi, or high serum calcium levels (Jones & Bartlett Learning, 2020).	Those with an allergy to clopidogrel or those who are actively bleeding (Jones & Bartlett Learning, 2020).	Those with liver disease, an allergy to rosuvastatin, and unexplained elevations in serum transaminase levels (Jones & Bartlett Learning, 2020).
Side Effects/Adverse Reactions (2)	Hypoglycemia, lactic acidosis and hepatic injury (Jones & Bartlett Learning, 2020).	Bradycardia, angina, heart failure, hyperglycemia, hypoglycemia, hyperkalemia, hyponatremia, and melena (Jones & Bartlett Learning, 2020).	Shortness of breath, chest pain, weakness, metallic taste in the mouth, weight loss, bone pain, muscle pain, nausea, constipation, tachycardia, pruritis, chest tightness, and skin rash (Jones & Bartlett Learning, 2020)	Fatal intracranial bleeding, hypotension, neutropenia, prolonged bleeding time, and thrombocytopenia (Jones & Bartlett Learning, 2020).	Hypertension, hyperglycemia, elevated liver enzymes, hepatic failure, acute renal failure, thrombocytopenia, and rhabdomyolysis (Jones & Bartlett Learning, 2020).
Nursing Considerations (2)	Give metformin with the evening meal. This will delay the	Measure the patient's heart rate and blood pressure before	Do not administer more than the prescribed amount to	If the patient takes aspirin, monitor them closely because they are at an	If creatine kinase levels are elevated after taking

	absorption of the medication, which, in turn, helps to reduce the risk of any adverse reactions involving the GI system. Routinely monitor the patient and their blood sugar levels to ensure the drug is working properly. Also, do not administer this medication to a patient if they are dehydrated or develop sepsis. Either of these conditions puts the patient at increased risk of developing lactic acidosis (Jones & Bartlett Learning, 2020).	administering this medication. Do not give the drug if the patient's heart rate is below 60 beats per minute and systolic blood pressure is below 90 mmHg. Also, monitor the patient's blood sugar levels while taking this medication because it can increase or decrease the patient's blood sugar levels (Jones & Bartlett Learning, 2020).	the patient. While taking this medication, assess the patient closely for any adverse effects of cholecalciferol, such as weakness and bone pain (Jones & Bartlett Learning, 2020).	increased risk of bleeding when taken in conjunction with clopidogrel. Also, it is essential to understand that the patient's bleeding time will be prolonged while taking clopidogrel (Jones & Bartlett Learning, 2020).	rosuvastatin, the medication should be discontinued. Routinely monitor the patient's serum lipoprotein levels to see how their body reacts to the drug (Jones & Bartlett Learning, 2020).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Before administering this medication, it would be essential to assess the patient's blood sugar	Before administering this medication, measure the patient's blood pressure and heart rate. As	Before administration, assess the patient for weakness and bone pain. An important lab to	Before administration, the patient's blood pressure should be measured because a	Before administration, the patient's blood pressure and blood sugar levels should be

	level via finger stick, which would also be a lab to monitor before administration. If the patient were to have renal impairment, assessing renal function and the patient's glomerular filtration rate before administration would also be important because this medication is contraindicated in those with a glomerular filtration rate of less than 30 mL/min (Jones & Bartlett Learning, 2020).	mentioned above, if the systolic blood pressure is below 90 mmHg and the heart rate is below 60 bpm, do not administer the medication. It is also essential to monitor the patient's blood sugar levels, serum potassium levels, and serum sodium levels before administration because carvedilol can cause high potassium levels, low sodium levels and alter the patient's blood sugar levels (Jones & Bartlett Learning, 2020).	monitor before administration is calcium. Cholecalciferol is a medication that helps the intestine to absorb more calcium. So, it would be essential to monitor the patient for hypercalcemia (Jones & Bartlett Learning, 2020).	side effect of this medication is hypotension. The patient's INR/PT, PTT/aPTT, neutrophils, and platelet count should all be assessed. This is because other side effects of clopidogrel include neutropenia, prolonged bleeding time, and thrombocytopenia (Jones & Bartlett Learning, 2020).	taken because this medication can contribute to high blood pressure and blood sugar readings. It would also be essential to monitor the patient's liver enzymes before administration since this medication can cause elevated liver enzyme levels after administration (Jones & Bartlett Learning, 2020).
Client Teaching needs (2)	Educate the patient to take metformin hydrochloride precisely as it is prescribed. Also, educate the patient to avoid ingesting	First, I would educate the patient to measure their blood pressure and heart rate before taking carvedilol. I would also inform the patient of the parameters that signify	Educate the patient to take this medication as directed and to schedule frequent blood tests. Educate the patient that they can take cholecalcifer	Encourage the patient to stop taking aspirin while taking clopidogrel because it places them at a significantly higher risk of bleeding. Educate the patient to avoid the sudden discontinuation of clopidogrel. Lastly, it is	Educate the patient to consume a diet low in cholesterol and fat. Since the patient has type 2 diabetes mellitus, it would be essential to educate her

	alcohol while taking this medication because it can increase their risk of developing hypoglycemia (Jones & Bartlett Learning, 2020).	when they can and cannot take a dose of carvedilol. Additionally, I would educate the patient, since she has diabetes, to monitor her blood sugar levels closely because carvedilol can either elevate or decrease their blood sugar levels (Jones & Bartlett Learning, 2020).	ol with or without food (Jones & Bartlett Learning, 2020).	essential to teach the patient to inform her dentist and other providers that she takes this medication before undergoing invasive surgeries or procedures. Notifying other providers that she takes this medication is vital because necessary precautions may need to be taken before any invasive procedures or surgeries can occur because of her increased risk of bleeding and prolonged bleeding time (Jones & Bartlett Learning, 2020).	to have routine HbA1c tests performed. It would also be necessary to educate her to routinely monitor her blood sugar levels because this medication can adversely elevate her blood sugar levels (Jones & Bartlett Learning, 2020).

Home Medications (5 required)

Brand/Generic	Apresoline (hydralazine hydrochloride)	Neurontin (gabapentin)	Bayer (aspirin/acetylsalicylic acid)	Norvasc (amlodipine besylate)	Lactated ringers solution
Dose	50 mg	300 mg	81 mg	7.5 mg	40 mL/hr
Frequency	TID	TID	Once daily	BID	Continuous
Route	PO	PO	PO	PO	IV

Classification	Vasodilator; Antihypertensive	1-amino-methylcyclohexaneacetic acid; Anticonvulsant	Salicylate; NSAID (anti-inflammatory, antiplatelet, antipyretic, non-opioid analgesic)	Calcium channel blocker; Antianginal, antihypertensive	Isotonic, crystalloid fluid; Alkalizing agent
Mechanism of Action	Hydralazine causes vasodilation of the vascular smooth muscle and the arteries so blood can flow easier through the individual's body (Jones & Bartlett Learning, 2020).	Gabapentin prevents the nerves from overreacting to painful and naturally non-painful stimuli (Jones & Bartlett Learning, 2020).	Aspirin blocks cyclooxygenase activity. Cyclooxygenase is an essential enzyme required for the formation of prostaglandins. Prostaglandins are a necessary aspect of the inflammatory response. Prostaglandins cause blood vessels to dilate, which leads to swelling and pain. Since aspirin causes the inhibition of cyclooxygenase and prostaglandins, inflammatory symptoms such as pain and swelling will eventually	Amlodipine binds to dihydropyridine and nondihydropyridine cell membrane receptor sites. These are located on myocardial and vascular smooth muscle cells. This medication also prevents the influx of extracellular calcium ions across slower calcium channels. This action reduces the intracellular calcium level, preventing the contraction of smooth muscle cells. This action also relaxes the vascular and coronary smooth muscles. As a result, there is a decrease in	Lactated ringers solution replaces lost fluids and electrolytes (Ogbru, 2019).

			subside (Jones & Bartlett Learning, 2020).	peripheral vascular resistance and systolic and diastolic blood pressure (Jones & Bartlett Learning, 2020).	
Reason Client Taking	Hypertension	Neuropathy	Clot prophylaxis post-cholecystectomy	Hypertension	Fluid replacement
Contraindications (2)	Those with coronary artery disease and an allergy to hydralazine (Jones & Bartlett Learning, 2020).	Those with chronic kidney disease and those who are allergic to gabapentin (Jones & Bartlett Learning, 2020).	Those with an allergy to aspirin and active bleeding or coagulation disorders (Jones & Bartlett Learning, 2020).	Those with an allergy to amlodipine and heart failure (Jones & Bartlett Learning, 2020).	Those with kidney failure and liver disease (Ogbru, 2019).
Side Effects/Adverse Reactions (2)	Orthostatic hypotension, tachycardia, rash, and itching (Jones & Bartlett Learning, 2020).	Suicidal ideation, hypotension, hypoglycemia, hepatitis, thrombocytopenia, and hyponatremia (Jones & Bartlett Learning, 2020).	GI bleeding, hepatotoxicity, and prolonged bleeding time (Jones & Bartlett Learning, 2020).	Arrhythmias and hypotension (Jones & Bartlett Learning, 2020).	Difficulty breathing, fever, hypotension, elevated serum potassium, and elevated serum sodium (Ogbru, 2019).
Nursing Considerations (2)	One important nursing	One nursing consideration is to ensure	Do not crush delayed-	Use this medication	One consideration

	consideration is to monitor the patient's heart rate and blood pressure before and while taking this medication. This should be done because this medication can adversely cause an elevated heart rate and orthostatic hypotension. Another nursing consideration would be to check the patient's blood pressure in multiple positions, such as standing, lying, and sitting. Doing this allows the nurse to assess the possible presence of orthostatic hypotension during medication therapy (Jones & Bartlett Learning, 2020).	the medication is being given precisely how it is prescribed. If it is to be given three times per day, the time between each dose mustn't exceed 12 hours. Another essential nursing consideration is to closely monitor the patient because suicidal ideation is a potential side effect of this medication. More specifically, the healthcare team should keep this patient close to the nurse's station simply because of this side effect (Jones & Bartlett Learning, 2020).	release forms of this medication unless directed. As k the patient if they are experiencing ringing in their ears. Ringing in the ears typically occurs if serum levels of this medication exceed its maximum dosage to achieve its purpose (Jones & Bartlett Learning, 2020).	cautiously in those with narrowing of the aorta, heart failure, or heart block. Monitor the patient's blood pressure frequently when adjusting the medication dosage because symptomatic hypotension can occur (Jones & Bartlett Learning, 2020).	would be to monitor the IV insertion site for signs of infiltration. Lactated Ringers should also be stored at room temperatur e (Ogbru, 2019).
Key Nursing	Before	Before	Check the	The primary	Before

Assessment(s)/Lab(s) Prior to Administration	administering this medication, the patient's blood pressure heart rate must be measured. A CBC panel should be monitored before initiating medication therapy (Jones & Bartlett Learning, 2020).	administration, assess the patient's blood pressure due to the side effect of hypotension. Also, before administration, gather the patient's baseline neurological status since this medication has the tendency to induce suicidal thoughts and ideation. Obtaining the patient's platelet count, serum sodium level, and blood glucose level is essential before administration. This is essential because this medication can cause hyponatremia, thrombocytopenia, and hypoglycemia (Jones & Bartlett Learning, 2020).	patient for any signs of bleeding before giving aspirin or allergies to this medication. Before administering aspirin, the patient's platelet level, INR/PT, and PTT levels should be checked (Jones & Bartlett Learning, 2020).	assessment before taking this medication is of the patient's heart rate and blood pressure (Jones & Bartlett Learning, 2020). There are currently no labs that need to be monitored before administering amlodipine.	administration, it would be essential to collect baseline vital signs. Crucial labs to check before administering this solution are serum sodium and potassium (Ogbru, 2019).
Client Teaching needs (2)	Educate the patient to change	Educate the patient to take a missed dose	Educate the patient to discontinue	Inform the patient that if they	Educate the patient on the

	positions slowly because this medication can cause orthostatic hypotension. Also, teach the patient not to suddenly stop taking this medication because if they do, severe rebound hypertension will most likely occur (Jones & Bartlett Learning, 2020).	as soon as possible. If the next dose is scheduled to be taken soon, I would inform her to take the scheduled one instead of the missed one to be back on track. I would also caution the patient to avoid double-dosing this medication. Also, educate the patient's daughters and granddaughter to monitor their mother and grandmother closely for thoughts of suicide and signs of attempting suicide (Jones & Bartlett Learning, 2020).	their aspirin use and contact their primary healthcare provider if they begin experiencing bloody stools or cough up blood. This is a sign of intestinal or stomach bleeding. Instruct the patient to take this medication with meals or after meals. Taking it on an empty stomach will cause the stomach to become upset (Jones & Bartlett Learning, 2020).	accidentally miss a dose of the medication, they need to take it as soon as possible and the next dose, preferably in 24 hours. Also, advise the patient to take this medication with food and not on an empty stomach. If taken on an empty stomach, GI upset or distress can result. Lastly, this patient should be educated to check their blood pressur e routinely throughout the day because this medication can adversely cause hypotension (Jones & Bartlett Learning, 2020).	reason they are receiving this solution. Inform the patient that this solution will only be obtained during their hospital stay (Ogbru, 2019).

Hospital Medications (5 required)

Medications Reference (1) (APA):

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

Ogbru, O. (2019, July 1). *Lactated ringer's solution: IV fluids replenish electrolytes*. MedicineNet. https://www.medicinenet.com/ringers-lactated_ringers_solution-intravenous/article.htm

Assessment

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is awake in bed. Patient A&O x4 to person, place, time, and situation. Patient is well-groomed. No acute distress present.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☒ N ☐** **Type:** Jackson-Pratt	Patient is Caucasian. Skin is warm, tan, and dry throughout. Skin turgor is elastic with immediate recoil. Nails are without clubbing or cyanosis. No appearance of rashes. Bruising noted in antecubital area of left arm from previous IV placement. Bruising also noted on abdomen in three of four quadrants. Bruising noted in LLQ due to multiple subcutaneous injections of Heparin. Small bruising noted in RUQ and LUQ towards midline and directly under umbilicus from laparoscopic cholecystectomy procedure. Bruising also noted in RUQ around insertion site of Jackson-Pratt drain. Jackson-Pratt drain placed on 10/10/21 post-cholecystectomy. No redness or drainage noted around Jackson-Pratt drain. Jackson-Pratt drain dry and intact. Jackson-Pratt drainage output at time of assessment was 50 milliliters. No wounds present. Normally, the patient's Braden scale score is 21. This score indicates the patient is at a very low risk of developing pressure sores. However, during the patient's hospital stay, the patient is ordered to be NPO post-operation, which decreases her score to 18. This score still indicates that the patient is at a low risk of developing pressure sores. Patient has IV placement on top of right hand for fluid replacement purposes. No redness, swelling, or warmness/coolness at IV insertion site.

HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical. Trachea is midline without deviation. Thyroid gland is non-palpable, no nodules noted. Bilateral carotid pulses are palpable and strong, +2. No lymphadenopathy in the head or neck is noted. Hair is of normal texture, quantity, and distribution for age. Bilateral auricles are moist and pink without lesions. Bilateral canals are clear without drainage with pearly grey TM. Patient uses glasses regularly. Bilateral sclera are white, bilateral cornea are clear, bilateral conjunctiva are pink; no visible redness or drainage from the eyes. Bilateral lids are pink and moist without lesions or discharge noted. PERRLA present bilaterally. EOMs intact bilaterally. Nasal septum is midline. Turbinates are moist and pink bilaterally with no visible bleeding or polyps. Bilateral frontal and maxillary sinuses are non-tender to palpation. Posterior pharynx and tonsils moist and pink without exudate noted. Uvula is midline. Soft palate rises and falls symmetrically. Dentition is good; teeth yellow to white in color. Gums are moist and pink. Tongue is moist and pink. Oral mucosa overall is moist and pink without lesions noted.
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N x** **Edema Y ☐ N x** **Location of Edema:**	Heart sounds auscultated x5. Clear S1 and S2 is present without murmurs, gallops, or rubs; PMI at fifth intercostal space at midclavicular line. Heart rate 60 bpm upon measurement. All extremities are warm, dry, tan, and symmetrical with full strength and range of motion (ROM). Peripheral pulses 2+ in upper and lower extremities bilaterally. Capillary refill occurs in less than 3 seconds to fingers and toes bilaterally. Patient negative for neck vein distention. Upper and lower extremities free of edema bilaterally. Homan's sign negative bilaterally. Epitrochlear lymph nodes are non-palpable bilaterally in upper arms. Scar visualized on chest from past open-heart surgery.

RESPIRATORY (2 points): **Accessory muscle use: Y☐ N x** **Breath Sounds: Location, character**	No accessory muscle use when breathing. Trachea Midline. No deviations. Patient denies shortness of breath. Respiratory rate 16 bpm upon measurement. Respirations are symmetrical and non-labored bilaterally. Lung sounds clear throughout bilaterally both anteriorly and posteriorly. No wheezes, crackles, or rhonchi noted. Patient is on room air.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N x** **Nasogastric: Y ☐ N x** **Size:** **Feeding tubes/PEG tube Y ☐ N x** **Type:**	Patient's diet at home consists of food and fluid of regular consistency. Patient is NPO during hospital stay. Patient reports that she only drinks alcohol during family gatherings, such as holidays or family reunions. She reports only drinking one to two beers during these gatherings. Height: 5'4". Weight: 158 lbs. Upon inspection, no abdominal distention or wounds are noted. However, multiple bruises, incisions, and scars were noted. As mentioned above, bruising is noted on the abdomen in three of four quadrants. Bruising noted in LLQ due to multiple subcutaneous injections of heparin. Small bruising noted in RUQ and LUQ towards midline and directly under umbilicus from laparoscopic cholecystectomy procedure. Bruising also noted in RUQ around insertion site of Jackson-Pratt drain. Incisions visualized where laparoscopic procedure was performed and where the Jackson-Pratt drain is placed. Minimal scarring is visualized above the umbilicus from past small bowel resection surgery. Bowel sounds are normoactive in all four quadrants, ranging from 5 to 20 bowel sounds per minute. Last bowel movement was 1000 per patient report. Patient denies any pain or tenderness upon palpation. No masses present upon palpation. No ostomy, nasogastric tube, or feeding tubes/PEG tubes present upon assessment.

GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N x** **Dialysis: Y ☐ N x** **Inspection of genitals:** **Catheter: Y ☐ N x** **Type:** **Size:**	Patient capable of ambulating to bathroom independently to urinate. No dialysis or catheter inserted upon assessment. No genital abnormalities noted. Patient did not urinate during clinical time. Patient denies pain upon urination, hesitancy, or urgency to urinate.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N x** **Fall Risk: Y x N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** **Needs assistance with equipment** **Needs support to stand and walk**	Patient shows no signs of neurovascular deficit. Exhibits active ROM in upper and lower extremities bilaterally. Patient benefits from the assistance of glasses for vision. Patient denies the use of supportive devices. Patient exhibits full strength in upper and lower extremities bilaterally. Patient does not require assistance with ADLs. Patient is a fall risk. Morse fall score is 20. This score indicates that the patient is a low fall risk due to having an IV in place. The patient can get up and ambulate independently without the use of assistive devices or equipment. The patient denies the use of any assistive devices or equipment at home.
NEUROLOGICAL (2 points): **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 MAEW for age and condition. PERRLA present bilaterally. Patient's strength is equal in arms and legs bilaterally. Patient is alert and oriented x4 to person, place, time, and situation. Patient does not exhibit a neurological deficit. Patient speaks English clearly and fluently. Patient able to vocalize feelings of sharp and dull sensations on the arms and legs bilaterally. No loss of consciousness present.

PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Patient does not report any coping methods at this time. Patient states that she attended college for a couple of years, but no degree was acquired during this time. Patient is Lutheran. Patient states, "I believe in God and know that he will take care of me." Patient reports that she is a widow, and lives in a one-story home with her two daughters, one granddaughter, and six dogs.

Physical Exam (18 points)

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1500	60 bpm	156/67 mmHg	16 bpm	98.2 F	95%
1700	60 bpm	153/63 mmHg	16 bpm	98.0 F	95%

Vital Sign Trends:

At 1500, the patient's blood pressure measured 156/67 mmHg. Hydralazine, a blood pressure-reducing medication, was administered to the patient at 1533. Two hours after administering the patient's blood pressure medication, at 1700, the patient's blood pressure only slightly reduced but remained high. The new blood pressure reading was 153/63 mmHg. After the patient was administered hydralazine, this subsequently high blood pressure reading tells me that the cardiovascular system is not working in conjunction with the blood pressure-reducing medication to reduce the patient's previously high blood pressure reading to within normal

limits. The patient's pulse, respiration, temperature, and oxygen saturation readings remained stable with very minimal fluctuations throughout the clinical.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1500	0-10 Numeric pain scale; Patient rated pain a 0 out of 10	Patient denied the presence of pain	Patient denied the presence of pain	Patient denied the presence of pain	Patient denied the presence of pain
1700	0-10 Numeric pain scale; Patient rated pain a 0 out of 10	Patient denied the presence of pain	Patient denied the presence of pain	Patient denied the presence of pain	Patient denied the presence of pain

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22 gauge **Location of IV:** Top of right hand **Date on IV:** 10/10/2021 **Patency of IV:** Patent, flushes easily **Signs of erythema, drainage, etc.:** No signs of erythema or drainage apparent upon assessment **IV dressing assessment:** IV dressing clean, dry, and intact upon assessment	Lactated ringers solution continuous infusion at 40 mL/hr via IV

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Lactated ringers continuous infusion at 40 mL/ hr via IV only during clinical time= 160 mL total intake	Jackson-Pratt drain in RUQ only during clinical time= 50 mL total output

Nursing Care

Summary of Care (2 points)

Overview of care:

Towards the beginning of clinical time, around 1500, I performed a vital sign and pain assessment. At 1533, I assisted the nurse with administering medications to the patient, such as hydralazine, gabapentin, and heparin. Hydralazine and gabapentin were given by mouth, and heparin was given as a subcutaneous injection. These medications are for hypertension, pain maintenance related to neuropathy, and clot prevention postoperatively. At 1700, I performed a head-to-toe assessment on the patient. I also obtained another set of vital signs and performed another pain assessment on the patient.

Procedures/testing done:

No procedures or testing were scheduled to be performed during our clinical time.

Complaints/Issues:

During the clinical time, the patient did not have any complaints or issues.

Vital signs (stable/unstable):

As mentioned in the “Vital Sign Trends” section, at 1500, the patient’s blood pressure measured 156/67 mmHg. Hydralazine, a blood pressure-reducing medication, was administered to the patient at 1533. Two hours after administering the patient’s blood pressure medication, at 1700, the patient’s blood pressure only slightly reduced but remained high. The new blood pressure reading was 153/63 mmHg. After the patient was administered hydralazine, this subsequently high blood pressure reading tells me that the cardiovascular system is not working in conjunction with the blood pressure-reducing medication to reduce the patient’s previously high blood pressure reading to within normal limits. The patient’s pulse, respiration, temperature, and oxygen saturation readings remained stable with very minimal fluctuations throughout the clinical. The patient’s nurse and health care technician were notified of the abnormal blood pressure readings.

Tolerating diet, activity, etc.:

At the time of clinical, the patient was NPO and could only have liquids with oral medications. During the patient’s hospital stay, she still had not received any therapy because she was still recovering from surgery three days later. The only activity for the patient currently was walking to the bathroom to urinate and walking back to her bed after urinating.

Physician notifications:

During the clinical time, there were no new physician notifications.

Future plans for patient:

Future plans for this patient include receiving an endoscopic retrograde cholangiopancreatography. The date and time for this procedure were unknown at the time of clinical. The patient is also ordered to spend more time in the hospital until her liver function

tests read within normal limits. The patient is also scheduled to undergo an MRI of the abdomen at 2000.

Discharge Planning (2 points)

Discharge location:

Once the patient is discharged from the hospital, she is arranged to be discharged home.

Home health needs (if applicable):

The patient does not require any home health needs after discharge from the hospital.

Equipment needs (if applicable):

The patient does not require any special equipment at home after discharge from the hospital.

Follow up plan:

Once the patient is discharged, she must follow up with her primary health care provider and her surgeon in one week.

Education needs:

Since the patient is in the recovery process and her blood glucose levels are still elevated above the normal range, it would be essential to educate the patient on properly maintaining her blood glucose levels within the normal range to prevent any further or future health problems. It is crucial to inform the patient to check her blood sugar before every meal and at bedtime and make sure that she is compliant with her medication regimen since she takes metformin for her diabetes. It would also be essential to educate the patient to avoid foods high in carbohydrates and sugar and educate her on those specific foods to avoid. This patient also has a past medical history of hypertension. It would be necessary to teach her to comply with her medication

regimen since she takes multiple blood pressure-reducing medications at home. I would also educate this patient to stay away from foods high in sodium and educate her on foods high in sodium to avoid. It would also be essential for me to teach this patient to measure her blood pressure at home at least twice per day, once in the morning before taking any medications and once before bedtime. Lastly, if the patient were to be discharged home with her Jackson-Pratt drain, I would teach her ways to prevent the incision from becoming infected. For example, I would educate the patient to keep the insertion site and the skin around the insertion site dry and clean to prevent the possibility of an infection.

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.
Need for Health Teaching related to unfamiliarity with hypertensive treatment such as proper nutrition, smoking cessation, and blood pressure evaluation as evidenced by a verbal report from the patient that teaching is needed regarding these topics (Swearingen & Wright, 2019).	I chose this nursing diagnosis because the patient has a past medical history of hypertension. The patient also had two consecutively high blood pressure readings upon measurement during the clinical time.	**1**. Teach the patient how important it is to self-measure her blood pressure at home routinely and how important it is to strictly follow her prescribed drug therapy or regimen (Swearingen & Wright, 2019). **2**. Educate the patient on how important proper nutrition is	Before discharge, the patient verbalizes that she understands the importance of self-measuring or evaluating her blood pressure at home frequently and adhering to her prescribed blood pressure therapy or regimen to keep her blood pressure under control. Before discharge, the patient verbalizes that she will join a smoking cessation program after

		since they have high blood pressure. Teach the patient to follow and adhere to a low-sodium diet and look at food labels when grocery shopping, specifically the caloric count, sodium count, and fat count or percentage. Instruct the patient to stay away from frozen TV dinners and processed foods. Also, the patient must be encouraged to join a smoking cessation program since smoking is a significant contributor to vasoconstriction, which leads to high blood pressure (Swearingen & Wright, 2019).	release from the hospital to help in treating her high blood pressure. The patient also verbalizes an understanding of how essential it is to follow a low-sodium diet at home and the importance of looking at food labels when grocery shopping. The patient also verbalizes an understanding of looking specifically at foods' caloric, sodium, and fat levels. The patient verbalizes an understanding of avoiding TV dinners and processed foods to help prevent high blood pressure readings.

Need for Health Teaching related to dietary modifications as evidenced by a verbal report from the patient requesting information about dietary changes to control her high blood sugar (Swearingen & Wright, 2019).	I chose this nursing diagnosis because the patient has a past medical history of type 2 diabetes mellitus. The patient's blood sugar reading on admission was 186 mg/dL and her blood sugar reading during the clinical time was 181 mg/dL. Considering that this patient has a history of type 2 diabetes mellitus with consistently high blood sugar readings, she needs to be educated on properly controlling her blood sugar levels at home before discharge.	**1**. Educate the patient to adhere to a diet that is low in fat and high in whole grains and fiber. Teach the patient what foods are high in fiber and whole grains and what foods to eat that are low in fat. Whole-grain foods include whole-grain cereals, bread, beans, and pasta. Food products high in fiber include beans, broccoli, berries, dried fruits, and whole grains. Foods low in fat include fruits, vegetables, sweet potatoes, beans, and legumes (Swearingen & Wright, 2019). **2**. The patient must be taught the most common signs and symptoms seen with hyperglycemia, such as the three Ps, and how hyperglycemia occurs. The three Ps are polydipsia, polyphagia, and polyuria. Teach the patient that hyperglycemia happens from stress, a low amount of exercise, and a large food intake (Swearingen & Wright, 2019).	Before discharge, the patient verbalizes that she understands to follow a low-fat, high fiber, and whole-grain diet to help control her blood sugar. The patient also verbalizes examples of foods low in fat and high in fiber and whole grains to the nurse. Before discharge, the patient verbalizes an understanding of and repeats back to the nurse the most common signs and symptoms experienced when blood sugar levels are elevated. The patient is also able to teach back to the nurse the multiple ways hyperglycemia can occur.

Need for Health Teaching related to lifestyle modifications and how rosuvastatin works in the body as evidenced by the patient requesting information about lifestyle modifications to help lower elevated cholesterol levels and how rosuvastatin lowers cholesterol (Swearingen & Wright, 2019).	I chose this nursing diagnosis because, during patient care, the patient reported that she was unfamiliar with managing her elevated cholesterol and coronary artery disease outside of using rosuvastatin at home. The patient also verbalized that she was unfamiliar with how rosuvastatin worked in the body to reduce her cholesterol levels.	**1**. Help the patient identify and understand lifestyle modifications to help control coronary artery disease and reduce high cholesterol levels such as smoking cessation, exercise, and diet modification, specifically a low-cholesterol and low-fat diet (Swearingen & Wright, 2019). **2**. Educate the patient on how rosuvastatin works in the body to reduce elevated cholesterol levels (Swearingen & Wright, 2019). Explain to the patient in simple terms that rosuvastatin works by slowing the body's cholesterol production, which, in turn, reduces the amount of cholesterol on the arterial walls that prevent proper blood flow to the heart (Jones & Bartlett Learning, 2020).	Before discharge, the patient repeats back to the nurse the necessary lifestyle modifications needed to help control her coronary artery disease and high cholesterol levels. Before discharge, the patient verbalizes and teaches back to the nurse a simple understanding of how rosuvastatin works in the body to reduce the body's elevated cholesterol levels.

Need for Health Teaching related to cholecystitis and the recovery process after having a cholecystectomy as evidenced by the patient never experiencing this condition and surgery before (Swearingen & Wright, 2019).	I chose this nursing diagnosis because, during the clinical time, this patient reported that she still did not know what cholecystitis was, what caused it, and the recovery process after surgery.	**1**. Since the patient is still not entirely familiar with the disease process, how it is caused, and the recovery process, it is essential to assess the patient's knowledge base and what she may remember from her pre-surgical consultation. Evaluating the patient's knowledge base will allow the nurse to set priorities for education (Swearingen & Wright, 2019). **2**. Besides verbally providing the patient with information regarding the disease process, how it is caused, and the recovery process, give the patient available pamphlets and website addresses that detail these topics. This nursing action is appropriate because some individuals may find learning easier if provided with additional resources to facilitate easier understanding (Swearingen & Wright, 2019).	After setting priorities and providing proper education to the patient, the patient verbalizes an understanding of what cholecystitis is, how it is caused, and the recovery process by repeating this information back to the nurse. This confirms that the education provided to them was effective. After providing verbal education, the patient will be provided with written and electronic sources of information to help them understand the disease process, how it is caused, and what can be done during the recovery process. Before discharge, the patient will verbalize an understanding of the information provided after being offered extra resources.

Other References (APA):

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

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: Medical-surgical, pediatric, maternity, and psychiatric-mental health* (5th ed.). Elsevier.

Concept Map (20 Points):

Subjective Data

The patient presented to the Clinton Union Hospital emergency room complaining of weakness, low blood pressure, and right upper quadrant pain with associated nausea and vomiting. Right upper quadrant pain, nausea, and vomiting specifically pertain to the patient's primary diagnosis of acute cholecystitis.
The patient declines experiencing any episodes of diarrhea or difficulty with urination upon admission and upon assessment during clinical time.
The patient declines having a fever upon admission. The patient did not have a fever upon assessment during clinical time.
When gathering vital signs at the beginning and end of clinical, and when performing my physical assessment on the patient, I asked the patient if she was experiencing any pain. The patient denied the presence of pain and rated it a 0 on a 0 to 10 numeric pain scale.

Nursing Diagnosis/Outcomes

Need for Health Teaching related to unfamiliarity with hypertensive treatment such as proper nutrition, smoking cessation, and blood pressure evaluation as evidenced by a verbal report from the patient that teaching is needed regarding these topics (Swearingen & Wright, 2019).
Goals: Before discharge, the patient verbalizes that she understands the importance of self-measuring or evaluating her blood pressure at home frequently and adhering to her prescribed blood pressure therapy or regimen to keep her blood pressure under control. The patient verbalizes that she will join a smoking cessation program after release from the hospital to help in treating her high blood pressure. The patient also verbalizes an understanding of how essential it is to follow a low-sodium diet at home and the importance of looking at food labels when grocery shopping. The patient also verbalizes an understanding of looking specifically at foods' caloric, sodium, and fat levels. The patient verbalizes an understanding of avoiding TV dinners and processed foods to help prevent high blood pressure readings.
Need for Health Teaching related to dietary modifications as evidenced by a verbal report from the patient requesting information about dietary changes to control her high blood sugar (Swearingen & Wright, 2019).
Goals: Before discharge, the patient verbalizes that she understands to follow a low-fat, high fiber, and whole-grain diet to help control her blood sugar, and provides examples of foods low in fat and high in fiber and whole grains to the nurse. The patient verbalizes an understanding of and repeats back to the nurse the most common signs and symptoms experienced when blood sugar levels are elevated, and the multiple ways hyperglycemia can occur.
Need for Health Teaching related to lifestyle modifications and how rosuvastatin works in the body as evidenced by the patient requesting information about lifestyle modifications to help lower elevated cholesterol levels and how rosuvastatin lowers cholesterol (Swearingen & Wright, 2019).
Goals: Before discharge, the patient repeats back to the nurse the necessary lifestyle modifications needed to help control her coronary artery disease and high cholesterol levels. Before discharge, the patient verbalizes and teaches back to the nurse a simple understanding of how rosuvastatin works in the body to reduce the body's elevated cholesterol levels.
Need for Health Teaching related to cholecystitis and the recovery process after having a cholecystectomy as evidenced by the patient never experiencing this condition and surgery before (Swearingen & Wright, 2019).
Goals: After setting priorities and providing proper education to the patient, the patient verbalizes an understanding of what cholecystitis is, how it is caused, and the recovery process by repeating this information back to the nurse. This confirms that the education provided to them was effective. After providing verbal education, the patient will be provided with written and electronic sources of information to help them understand the disease process, how it is caused, and what can be done during the recovery process. Before discharge, the patient will verbalize an understanding of the information provided after being offered extra resources.

Objective Data

Abnormal assessment findings post-cholecystectomy: Bruising on the abdomen in three of four quadrants. Bruising noted in LLQ due to multiple subcutaneous injections of heparin. Small bruising noted in RUQ and LUQ towards midline and directly under umbilicus from laparoscopic cholecystectomy procedure. Bruising also noted in RUQ around insertion site of Jackson-Pratt drain. Incisions visualized where laparoscopic procedure was performed and where the Jackson-Pratt drain is placed.
Abnormal labs on admission prior to cholecystectomy procedure that supported the patient's primary diagnosis of active cholecystitis: WBC: 11.8 k/cumm (high), AST: 250 IU/L (high), ALT: 170 IU/L (high), Bilirubin: 1.3 mg/dL (high)
Diagnostic Imaging: CT scan of the abdomen and pelvis: Gallbladder enlargement, gallstones, and a thick gallbladder wall visualized

Patient Information

C.A.S., a 72 y.o. female with a past medical history of CAD, hypertension, acute pancreatitis, type 2 DM, hyperlipidemia, neuropathy, and heart disease admitted for complaints of right upper quadrant pain with accompanied nausea and vomiting
On 10/9, patient reported pain in her RUQ that began at home around two o'clock after eating lunch. It was sharp, aching, and intermittent. Patient reported the pain was accompanied by two episodes of vomiting. Patient took pain medication at two o'clock to help relieve the pain. By by five o'clock, the pain was not relieved. Her daughters brought her to the ER for evaluation.
Primary Dx: Acute cholecystitis
PSHx: open heart surgery, cardiac stent, small bowel resection, CABG, and a right carotid endarterectomy

Nursing Interventions

Teach the patient how important it is to self-measure her blood pressure at home routinely and how important it is to strictly follow her prescribed drug therapy or regimen (Swearingen & Wright, 2019).
Educate the patient on how important proper nutrition is since they have high blood pressure. Teach the patient to follow and adhere to a low-sodium diet and look at food labels when grocery shopping, specifically the caloric count, sodium count, and fat count or percentage. Instruct the patient to stay away from frozen TV dinners and processed foods. Also, the patient must be encouraged to join a smoking cessation program since smoking is a significant contributor to vasoconstriction, which leads to high blood pressure (Swearingen & Wright, 2019).
Educate the patient to adhere to a diet that is low in fat and high in whole grains and fiber. Teach the patient what foods are high in fiber and whole grains and what foods to eat that are low in fat. Whole-grain foods include whole-grain cereals, bread, beans, and pasta. Food products high in fiber include beans, broccoli, berries, dried fruits, and whole grains. Foods low in fat include fruits, vegetables, sweet potatoes, beans, and legumes (Swearingen & Wright, 2019).
The patient must be taught the most common signs and symptoms seen with hyperglycemia, such as the three Ps, and how hyperglycemia occurs. The three Ps are polydipsia, polyphagia, and polyuria. Teach the patient that hyperglycemia happens from stress, a low amount of exercise, and a large food intake (Swearingen & Wright, 2019).
Help the patient identify and understand lifestyle modifications to help control coronary artery disease and reduce high cholesterol levels such as smoking cessation, exercise, and diet modification, specifically a low-cholesterol and low-fat diet (Swearingen & Wright, 2019).
Educate the patient on how rosuvastatin works in the body to reduce elevated cholesterol levels (Swearingen & Wright, 2019). Explain to the patient in simple terms that rosuvastatin works by slowing the body's cholesterol production, which, in turn, reduces the amount of cholesterol on the arterial walls that prevent proper blood flow to the heart (Jones & Bartlett Learning, 2020).
Since the patient is still not entirely familiar with the disease process, how it is caused, and the recovery process, it is essential to assess the patient's knowledge base and what she may remember from her pre-surgical consultation. Evaluating the patient's knowledge base will allow the nurse to set priorities for education (Swearingen & Wright, 2019).
Besides verbally providing the patient with information regarding the disease process, how it is caused, and the recovery process, give the patient available

with additional resources to facilitate easier understanding (Swearingen & Wright, 2019).