N441 Care Plan #1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 1-30-23	**Client Initials** J. H. B.	**Age** 78 y/o	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Married	**Allergies** -Lisinopril (cough)
Code Status Full code	**Height** 177.8 cm	**Weight** 72.6 kg	

Medical History (5 Points)

Past Medical History: Abdominal aortic aneurysm, ETOH abuse, atherosclerosis of native arteries of extremities with intermittent claudication (bilateral, legs), Barrett esophagus, BPH, chronic suprapubic catheter, COPD, hyperlipidemia, HTN, hypothyroidism, neurogenic bladder, nodular thyroid disease, prostate cancer, PUD, stage 3 chronic kidney disease, tympanic membrane perforation, type 2 diabetes

Past Surgical History: Angiogram, SFA balloon angioplasty of superficial femoral artery, tympanoplasty, hemithyroidectomy, tonsillectomy, direct laryngoscopy, lower limb angiogram, colonoscopy polypectomy

Family History: Mother: lung cancer, Father: colon cancer, heart attack, Brother: diabetes mellitus, Sister: diabetes mellitus

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Tobacco: cigarettes ½ pack a day, for about 30 years, Alcohol: beer daily about 4 cans, for about 57 years, no recreational drug use reported.

Assistive Devices: dentures, glasses

Living Situation: Lives at home with wife

Education Level: 10th grade educated, no barriers to learning

Admission Assessment

Chief Complaint (2 points): Severe leg pain and cramping

History of Present Illness – OLD CARTS (10 points): On January 30th, a 78-year-old male with a history of atherosclerosis in the lower extremities arrived at the SBL hospital for a scheduled femoral popliteal bypass surgery. The location of the operation was the right inner thigh, with two incisions made. The patient has reported resting leg pain for around "2 weeks"; however, the patient recently had covid and had to reschedule this procedure. Characteristics of his pain include severe "cramping" and difficulty walking. The patient reports he can only "walk a couple of feet." Aggravating factors include nighttime for the patient; he reports his legs hurt more at night or while trying to ambulate. Nothing relieves his pain except opioids prescribed at the hospital. After femoral popliteal bypass surgery, he reports leg pain as a 2 out of 10 on the numeric scale.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Bilateral superficial femoral artery occlusions

Secondary Diagnosis (if applicable): Atherosclerosis of native arteries of extremities with intermittent claudication

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

Peripheral arterial disease (PAD), involving atherosclerosis, refers to an arterial obstruction outside the coronary arteries but instead in the body's peripheral regions (Caprotti, 2020). Most often, PAD is silent for years or chronic, showing no symptoms, although PAD can also be acute. PAD is due to atherosclerotic plaques that accumulate in the extremities' peripheral arteries. Diabetes is a common risk factor for PAD because uncontrolled glucose levels in the blood can cause vessel injury. Once damaged, vessels are not as flexible, so blood does not travel as smoothly (Jovinally, 2020). The patient had type 2 diabetes and an increased glucose lab common risk factors for occlusions. The most common site for

occlusions in the peripheral regions is the femoral artery above the knee; however, obstructions can also occur in the iliac, popliteal, or tibial arterial vessels (Capriotti, 2020). The patient in the clinic had occlusions in his femoral artery. If PAD is acute, a sudden lack of blood flow leads to ischemia, which, if not treated, can progress into infarction and cause necrosis of the tissues (Capriotti, 2020). However, more often, PAD is chronic, where tissue ischemia only occurs with exertion, which presents as leg cramping, otherwise known as intermittent claudication (Capriotti, 2020). Each body system overall is affected by this imbalance of oxygen supply. The metabolic changes in the skeletal muscles during ischemia episodes cause pain, but the endothelial cells and nerve cells are also injured (Capriotti, 2020).

Signs and symptoms of PAD include ischemia of the limbs, such as pain, numbness or tingling, and coolness of the extremity (Capriotti, 2020). It is vital to assess if this pain is due to exertion or if it is relieved by rest. Resting leg pain often indicates critical limb ischemia, which can lead to amputation (Capriotti, 2020). The patient in the clinic had pain even while resting in his left leg. Clinical manifestations of PAD include diminished or absent pulses, palpable coolness, paresthesias, pallor, and pain with excretion (Capriotti, 2020). In PAD, one limb's pulse may be diminished while the other limb's pulse may not be, so peripheral pulses should be compared. The patient in clinical practice had a diminished left dorsal pulse compared to his right side.

Diagnosis of PAD includes the ankle-brachial index (ABI), a comparison of the upper and lower extremity systolic blood pressure (Capriotti, 2020). An ABI is the diagnostic test of choice for PAD. Laboratory tests for PAD include a CBC, hemoglobin, hematocrit, platelet count, lipid profile, ESR, and CRP for inflammation (Capriotti, 2020). These tests check for conditions related to PAD, such as high cholesterol or diabetes. Vitals can show increased blood pressure related to PAD or low oxygen percentage on pulse oximetry. Diagnostic procedures for diagnosing PAD include an angiogram with dye utilizing CT or MRI to visualize occlusions (Capriotti, 2020). The patient in clinical had an angiogram done before his procedure, which showed femoral artery occlusions.

Treatment of PAD should be focused on preventative measures. These measures include regular exercise, weight control, maintenance of normal blood sugar levels in diabetic patients, and healthy

cholesterol and lipoproteins which reduce the risk of vessel injury as the disease precedes (Capriotti, 2020). Pharmacologic treatment includes medications that reduce blood pressure, and blood cholesterol, inhibit platelet aggregation, and dilate peripheral vessels (Capriotti, 2020). Aspirin, one of the patient's daily medications, is recommended to reduce the risk of MI, stroke, and vascular death in patients with symptomatic PAD. Thrombolytic medications or clot busters, including Plavix, are also used to treat PAD. Surgical treatment for PAD includes either an angioplasty with a stent or open surgical vascular bypass grafting (Capriotti, 2020). The patient from the clinic had a bypass graft. The bypass graft is made from a superficial leg vein or prosthetic graft material (Capriotti, 2020).

Pathophysiology References (2) (APA):

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

Jovinally, J. (2020, June 23). *What to know about peripheral arterial disease (PAD)*. Healthline. Retrieved February 3, 2023, from https://www.healthline.com/health/type-2-diabetes/peripheral-arterial-disease

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	3.90-4.98x10^6 uL	N/A	3.72	A low red blood cell count could be due to the patient's smoking, his history of kidney disease, or a sign of hypoxia in the body (NHS, 2022).
Hgb	12.0-15.5 g/dL	N/A	11.5	Diseases such as the patient's chronic kidney disease or hypothyroidism can cause how hemoglobin levels (Mayo clinic, 2022).
Hct	35-45%	N/A	34.2	Bleeding or chronic kidney disease

				can cause low hematocrit levels, and the patient just had a procedure with an incision for his bypass (Mount Sinai, 2022).
Platelets	140-400x10^3 uL	N/A	312	
WBC	4.0-9.0x10^2 uL	N/A	11.9	Smoking and increased stress level from the bypass could increase white blood cell counts (Mayo Clinic, 2022). The patient may also be developing a post-op infection. Endothelial injury from atherosclerosis may also increase white blood cells.
Neutrophils	1.60-7.70x10^3 uL	N/A	9.6	Inflammation or stress from the bypass can increase neutrophil levels (Cleveland Clinic, 2022).
Lymphocytes	1.00-4.90 x10^3 uL	N/A	1.3	
Monocytes	0.2-0.95 x10^3 uL	N/A	1.1	Infection, inflammation, and stress on the body can cause elevated monocyte levels (Pietrangelo, 2022).
Eosinophils	0.00-0.50 x10^3 uL	N/A	N/A	
Bands	8-21 mg/dL	N/A	N/A	

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	135-145 mEq/L	N/A	135	
K+	3.5-5.1 mEq/L	N/A	4.4	
Cl-	98-107 mEq/L	N/A	106	
CO2	22-29 mEq/L	N/A	22	
Glucose	70-99 mg/dL	N/A	120	High glucose levels can result from the patient's type 2 diabetes or atherosclerosis (Cleveland Clinic, 2020).

BUN	6-20 mg/dL	N/A	14	
Creatinine	0.50-1.00 mg/dL	N/A	1.15	The patient's chronic kidney disease can cause an increased creatinine level (Seladi-Schulman, 2019).
Albumin	3.4-5.4 g/dL	N/A	N/A	
Calcium	8.4-10.5 mg/dL	N/A	8.6	
Mag	1.6-2.6 mg/dL	N/A	N/A	
Phosphate	3.4-4.5 mg/dL	N/A	N/A	
Bilirubin	0.2-1.0 mg/dL	N/A	N/A	
Alk Phos	44-147 uL	N/A	N/A	
AST	0-35 uL	N/A	N/A	
ALT	4-36 uL	N/A	N/A	
Amylase	60-120 uL	N/A	N/A	
Lipase	0-160 uL	N/A	N/A	
Lactic Acid	0.5-2.2 mmol/L	N/A	N/A	
Troponin	<0.04 ng/mL	N/A	N/A	
CK-MB	3-5%	N/A	N/A	
Total CK	22-198 uL	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	0.9-1.1	N/A	N/A	

PT	11.5-15.0	N/A	N/A	
PTT	25-35 Sec	N/A	N/A	
D-Dimer	<0.05	N/A	N/A	
BNP	>400	N/A	N/A	
HDL	>60	N/A	N/A	
LDL	<130	N/A	N/A	
Cholesterol	<200	N/A	N/A	
Triglycerides	<150	N/A	N/A	
Hgb A1c	4.0-5.6%	N/A	N/A	
TSH	0.5-5.0	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	N/A	N/A	
pH	5.0-9.0	N/A	N/A	
Specific Gravity	1.003-1.020	N/A	N/A	
Glucose	Negative	N/A	N/A	
Protein	Negative	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	Negative	N/A	N/A	
RBC	Negative	N/A	N/A	
Leukoesterase	Negative	N/A	N/A	

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35-7.45	N/A	N/A	
PaO2	10.7-13.3	N/A	N/A	
PaCO2	35-45	N/A	N/A	
HCO3	22-26	N/A	N/A	
SaO2	92-100	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):

Hematocrit. Mount Sinai Health System. (2022, January 9). Retrieved February 2, 2023, from https://www.mountsinai.org/health-library/tests/hematocrit

Hyperglycemia: Causes, symptoms, treatments & prevention. Cleveland Clinic. (2020, February 12). Retrieved February 2, 2023, from https://my.clevelandclinic.org/health/diseases/9815-hyperglycemia-high-blood-sugar

Mayo Foundation for Medical Education and Research. (2022, December 15). *High white blood cell count causes*. Mayo Clinic. Retrieved February 2, 2023, from https://www.mayoclinic.org/symptoms/high-white-blood-cell-count/basics/causes/sym-20050611

Mayo Foundation for Medical Education and Research. (2022, May 24). *Low hemoglobin count causes*. Mayo Clinic. Retrieved February 2, 2023, from https://www.mayoclinic.org/symptoms/low-hemoglobin/basics/causes/sym-20050760

NHS. (2022, July 6). *Red blood cell count*. NHS choices. Retrieved February 2, 2023, from https://www.nhs.uk/conditions/red-blood-count/

Pietrangelo, A. (2022, March 25). *Monocytes high (monocytosis): Causes, symptoms, treatment*. Healthline. Retrieved February 2, 2023, from https://www.healthline.com/health/monocytes-high

Seladi-Schulman, J. (2019, July 24). *High creatinine symptoms: What may occur when your levels are off*. Healthline. Retrieved February 2, 2023, from https://www.healthline.com/health/high-creatinine-symptoms

What are neutrophils? what can cause high or low neutrophil count. Cleveland Clinic. (2022, January 21). Retrieved February 2, 2023, from https://my.clevelandclinic.org/health/body/22313-neutrophils

Diagnostic Imaging

All Other Diagnostic Tests (5 points): To diagnose occlusions in the femoral artery, use a peripheral pulse assessment and the ankle-brachial index. Lab tests for PAD should include a CBC, hemoglobin, hematocrit, platelet count, lipid profile, and nonspecific inflammation tests such as ESR or CRP (Capriotti, 2020). Angiography, CT, and ultrasonography may also help find occlusions.

Diagnostic Test Correlation (5 points): The patient had no diagnostic test performed during this admission. Before this procedure, he had an angiogram, where an x-ray determines blocked vessels. The purpose of this test was to allow visualization of the arterial vessel with the occlusion and clear the patient for a femoral-popliteal artery bypass graft.

Diagnostic Test Reference (1) (APA):

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

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

Home Medications (5 required)

Brand/Generic	Norvasc/ amlodipine besylate	Lipitor/ atorvastatin calcium	Bayer/aspirin	Propecia/ finasteride	Eltroxin/ levothyroxine sodium
Dose	5 mg	10 mg	81 mg	5 mg	88 mcg
Frequency	Two times a day	Daily	Daily	Daily	Daily
Route	Oral	Oral	Oral	Oral	Oral
Classification	<u>Pharm:</u> calcium channel blocker <u>Thera:</u> antianginal, antihypertensive	<u>Pharm:</u> HMG-CoA reductase inhibitor <u>Thera:</u> antihyperlipidemic	<u>Pharm:</u> salicylate <u>Thera:</u> NSAID, anti-inflammatory, antiplatelet, antipyretic, non-opioid analgesic	<u>Pharm:</u> 5-alpha reductase inhibitor <u>Thera:</u> benign prostatic hyperplasia agent, hair growth stimulant	<u>Pharm:</u> synthetic thyroxine <u>Thera:</u> thyroid hormone replacement
Mechanism of Action	This drug binds to cell membrane receptors on myocardial and vascular smooth muscle cells and inhibits the influx of extracellular calcium ions across slow calcium channels (Jones & Bartlett, 2020). This action relaxes the muscles leading to decreases in	Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and increasing LDL receptors on liver cells to enhance LDL uptake and breakdown (Jones & Bartlett, 2020).	Blocks enzyme needed for prostaglandin synthesis. Prostaglandins, necessary in the inflammatory response, cause local vasodilation with swelling and pain. Pain is also relieved because prostaglandins play a role in pain	It inhibits 5-alpha reductase, an intracellular enzyme that converts testosterone to its metabolite in the liver, prostate, and skin. The metabolite is a potent androgen partially responsible for benign prostatic hyperplasia and hair loss (Jones & Bartlett, 2020).	Levothyroxine has all the following actions of endogenous thyroid hormone such as increasing energy expenditure, accelerating rate of cellular oxidation, stimulating body tissue growth, regulating differentiation and proliferation of stem cells, aiding in the myelination process, regulating growth, decreasing

	peripheral vascular resistance, blood pressure, workload, and oxygen demand, relieving angina.		transmission from the periphery to the spinal cord. Aspirin also inhibits platelet aggregation by interfering with the production of thromboxane A2, which stimulates platelet aggregation. Aspirin also acts on the heat-regulating center in the hypothalamus and causes vasodilation, sweating, and heat loss (Jones & Bartlett, 2020).		blood and hepatic cholesterol concentrations, and enhancing carbohydrate and protein metabolism (Jones & Bartlett, 2020).
Reason Client Taking	The client takes this to control his hypertension.	The patient takes this to help treat his hyperlipidemia and atherosclerosis.	The patient takes this to reduce the severity of or prevent acute MI, an antiplatelet therapy.	The patient is taking this to treat his benign prostatic hyperplasia.	The client takes this to treat his hypothyroidism.
Contraindications (2)	- Hypersensitivity to amlodipine. -When taken with simvastatin can increase blood levels of these drugs. -Use cautiously in patients with impaired renal function.	- Contraindications include hepatic disease and hypersensitivity to atorvastatin. -Use caution in patients who consume substantial quantities of alcohol or have a history of liver disease because atorvastatin use increases the	- Contraindications include hypersensitivity to aspirin and active bleeding. -Alcohol use increases the risk of GI ulcers.	- Contraindications include hypersensitivity to finasteride. -Be aware that the drug may affect PSA levels, masking the presence of prostate cancer.	-Do not use levothyroxine with acute MI, uncorrected adrenal insufficiency, or untreated thyrotoxicosis. -Avoid if the patient experiences hypersensitivity to levothyroxine.

		risk of liver dysfunction (Jones & Bartlett, 2020).			
Side Effects/Adverse Reactions (2)	Adverse reactions of amlodipine include hypotension and pancreatitis.	Adverse reactions include hypoglycemia, anemia, and thrombocytopenia.	Adverse reactions include GI bleeding, prolonged bleeding time, and hepatotoxicity.	Adverse reactions include hypotension, male breast cancer, and high-grade prostate cancer.	Adverse reactions include MI, arrhythmias, and angioedema.
Nursing Considerations (2)	-Use caution in patients with heart block, heart failure, impaired renal function, hepatic disorder, or severe aortic stenosis. -Monitor blood pressure while adjusting the dosage, especially in patients with heart failure or severe aortic stenosis because symptomatic hypotension may occur. -Assess the patient frequently for chest pain when starting or increasing the dose because worsening angina or acute MI can occur (Jones & Bartlett, 2020).	-Expect to withhold atorvastatin therapy if the patient develops an acute condition suggestive of myopathy or has a risk factor predisposing to the development of renal failure secondary to rhabdomyolysis, such as an acute severe infection; hypotension; major surgery; severe electrolyte, endocrine, or metabolic disorder; or uncontrolled seizures (Jones & Bartlett, 2020). -Expect liver function tests to be performed before atorvastatin therapy starts and as clinically necessary for signs of jaundice. -Expect to	-Do not crush timed-release or controlled-release aspirin tablets unless directed. -Ask about tinnitus which usually occurs when the blood aspirin level reaches or exceeds the maximum dosage for therapeutic effect.	-The patient should have a urologic evaluation before starting finasteride therapy and periodically throughout therapy because the drug can cause an increased risk for prostate cancer. -Be aware that pregnant female healthcare workers should not handle broken finasteride tablets because of potential adverse effects on the male fetus. -Expect the patient to have a digital rectal prostate exam before and periodically during therapy.	-Monitor the blood glucose level of the diabetic patient because the drug may worsen glycemic control and increase antidiabetic agents or insulin requirement. -Use levothyroxine cautiously in the elderly and patients with underlying cardiovascular disease, and these clients should begin therapy at a lower dose.

		measure lipid levels 2 to 4 weeks after therapy starts to adjust dosage as directed and to repeat periodically until lipid levels are within the desired range. -Monitor diabetic patients' blood glucose levels.			
Key Nursing Assessment(s)/Lab(s) Prior to Administration	-Monitor blood pressure. -The liver metabolizes the drug, so check for hepatic impairment, such as signs of jaundice or liver enzymes.	-Monitor blood glucose level. -Monitor liver function tests and lipid levels.	-Monitor for signs of bleeding, such as black tarry stools. -Check for signs of hepatotoxicity.	-Expect a urologic assessment and digital rectal examination of the prostate before finasteride therapy begins.	-Expect the patient to undergo thyroid function tests regularly during therapy. -Monitor blood glucose level.
Client Teaching needs (2)	-Tell the patient to take the missed dose as soon as remembered and the next dose in 24 hours. -Educate the patient to immediately notify the provider of dizziness, arm or leg swelling, difficulty breathing, hives, or rash.	-Advise patients with diabetes to monitor blood glucose levels closely. -Instruct the patient to take a missed dose as soon as possible. He should skip the missed dose if it is almost time for his next dose. Tell him not to double the dose.	-Advise adult patients taking low-dose aspirin not to take ibuprofen because it may reduce aspirin's cardioprotective and stroke-preventive effects. -Instruct patient to take aspirin with food or after meals because it may cause GI to upset if taken on an empty stomach. -Stop taking medication and notify the provider of signs and symptoms of bleeding, such	-Urge patient and female partners to use reliable contraception during therapy because the semen of men who take this drug can harm male fetuses. -Inform the patient that the drug may cause various sexual dysfunction problems, including decreased libido, erectile dysfunction, and male infertility, which may continue even after the drug therapy stops.	-Inform the patient that levothyroxine replaces a hormone typically produced by the thyroid gland and that he will probably need to take this drug for life. -Take the drug with a full glass of water and at least 4 hours apart from antacids, calcium, or iron supplements. -Take the drug 30 min before breakfast on an empty stomach to increase absorption and prevent insomnia.

			as bloody or tarry stools or vomit that looks like coffee grounds.		

Hospital Medications (5 required)

Brand/Generic	Cefotetan/ cefotetan disodium	Norco/ hydrocodone bitartrate and acetaminophen	Duramorph/ morphine sulfate	Protonix/ pantoprazole sodium	Pulmicort/ budesonide
Dose	2 g	5 mg-325 mg	4 mg=1 ml	40 mg=10 ml	0.25 mg=2 ml
Frequency	2 doses	PRN for pain every 4 hrs	PRN for pain every 4 hrs	Daily	Twice a day
Route	IV	Oral	IV	IV	Inhalation
Classification	Pharm: second-generation cephalosporin Thera: antibiotic	Pharm: opioid Thera: opioid analgesic	Pharm: opioid Thera: opioid analgesic	Pharm: proton pump inhibitor Thera: antiulcer	Pharm: corticosteroid Thera: antiasthmatic, anti-inflammatory
Mechanism of Action	Interferes with bacterial cell wall synthesis by inhibiting the final step in cross-linking peptidoglycan strands. Peptidoglycan makes cell membranes rigid and protective; without it, bacterial cells rupture and die (Jones & Bartlett, 2020).	Binds to and activates opioid receptors at sites in the periaqueductal and periventricular gray matter, the ventromedial medulla, and the spinal cord to relieve pain (Jones & Bartlett, 2020).	Binds with and activates opioid receptors in the brain and spinal cord to produce analgesia and euphoria (Jones & Bartlett, 2020).	Pantoprazole interferes with gastric acid secretion by inhibiting the hydrogen-potassium-adenosine triphosphatase enzyme system or the proton pump. The drug irreversibly inhibits the final step in gastric acid production by blocking the exchange of intracellular H+ and extracellular K+, thus	Budesonide inhibits the inflammatory cells and mediators, possibly by decreasing influx into nasal passages, bronchial walls, or the intestines. As a result, nasal or airway inflammation decreases. Oral inhalation also inhibits mucus secretion in airways, decreasing the amount and

				preventing H+ from entering the stomach and additional HCl from forming (Jones & Bartlett, 2020).	viscosity of sputum (Jones & Bartlett, 2020).
Reason Client Taking	The patient is taking this to provide surgical prophylaxis.	The patient is taking this to manage severe pain.	The patient is taking this to manage severe pain.	The patient takes this to treat his peptic ulcer disease.	The patient takes this as maintenance therapy for his COPD.
Contraindications (2)	-History of cephalosporin-induced hemolytic anemia. - Hypersensitivity to cefotetan. -Alcohol use may have a disulfiram-like reaction.	-Acute or severe bronchial asthma or hypercarbia. - Hypersensitivity to hydrocodone bitartrate or acetaminophen. -Significant respiratory depression.	- Contraindications for morphine include acute or severe bronchial asthma in an unmonitored setting and respiratory depression. - Contraindications include acute alcoholism, alcohol withdrawal syndrome, arrhythmias, brain tumors, heart failure caused by chronic lung disease, and seizure disorders.	- Contraindications to pantoprazole therapy include hypersensitivity to pantoprazole or hepatotoxicity.	-Budesonide contraindications include hypersensitivity to budesonide, recent septal ulcers or nasal surgery or trauma, and acute asthma episodes.
Side Effects/Adverse Reactions (2)	-Adverse reactions include hemolytic anemia, thrombocytopenia, and unusual bleeding. -This drug can also cause anaphylaxis.	Adverse reactions can include hypotension, respiratory depression, and coma.	Adverse reactions include hypotension, bradycardia, coma, respiratory arrest, and respiratory depression.	Adverse reactions include rhabdomyolysis, hepatotoxicity, C. Diff-associated diarrhea, and thrombocytopenia.	Adverse reactions to budesonide include benign intracranial hypertension, adrenal insufficiency, and pancreatitis.
Nursing Considerations (2)	-Use cefotetan cautiously in patients with impaired renal function or a history of GI	-Use extreme caution when administering hydrocodone to patients with significant	-Use extreme caution when administering morphine to patients with hypercapnia,	-Ensure the continuity of gastric acid suppression during the transition from	-Assess the patient for the effectiveness of budesonide therapy, especially if

	disease, especially colitis. -For IV injection, give the drug slowly over 3 to 5 minutes through a flowing compatible IV solution tubing.	COPD, cor pulmonale, and in patients having decreased respiratory reserve. These patients may develop respiratory depression, even with the usual therapeutic doses. -Do not administer hydrocodone to a patient wearing a transdermal fentanyl patch until the patch has been removed for 18 hours. -Also, close monitoring is essential for a patient converting from methadone because methadone has a long half-life and tends to accumulate in the blood.	hypoxia, or decreased respiratory reserves, such as asthma, COPD, or cor pulmonale. Monitor the patient's respiratory status closely; morphine may decrease respiratory drive while increasing airway resistance to the point of apnea. -Ensure that before giving morphine, opioid antagonist and equipment for oxygen delivery and respiration are available.	oral to IV pantoprazole or vice versa. Even a brief interruption of effective suppression can lead to severe complications. -Do not give pantoprazole within four weeks of testing for helicobacter pylori because antibiotics, bismuth preparations, and proton pump inhibitors suppress H. pylori and may lead to false-negative results. -Flush with NS before and after giving the drug through an IV line.	being weaned from systemic corticosteroid. If the patient has increased asthma or an immunologic condition previously suppressed by systemic corticosteroids, such as arthritis, conjunctivitis, an eosinophilic condition, eczema, or rhinitis, notify the prescriber. -Monitor patients with diabetes mellitus, glaucoma or cataracts, hypertension, osteoporosis, or peptic ulcer, as glucocorticosteroid therapy, may increase adverse effects.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	-Monitor BUN, serum creatinine levels, fluid intake, and output for signs of nephrotoxicity. -Assess the patient's bowel pattern daily; severe diarrhea may indicate pseudomembranous colitis.	-Monitor for respiratory depression. -Assess the patient for constipation and provide a high-fiber diet and adequate fluid intake. -Monitor vitals for hypotension.	-Monitor the patient's respiratory rate. -Monitor blood pressure; severe hypotension can develop.	-Monitor the patient's urine output because pantoprazole may cause acute interstitial nephritis. -Monitor patients for bone fractures because proton pump inhibitors increase the risk of osteoporosis-related fractures. -Monitor patient	-Monitor for hypertension or allergic reaction. -Monitor blood glucose levels in diabetic patients.

				for diarrhea from C. diff, which can occur with or without antibiotics in patients taking pantoprazole.	
Client Teaching needs (2)	-Tell the patient to report severe diarrhea to the prescriber even up to 2 months after therapy has stopped. -Urge the patient to avoid alcohol during and for at least three days after cefotetan therapy.	-Warn the patient of the possibility of addiction even when taken as prescribed. -Inform the patient that excessive or prolonged use can also lead to addiction, misuse, overdose, and possibly death. Caution the patient to avoid ingesting alcohol as the combination increases the risk of overdose, respiratory depression, and death. This caution also includes other depressants, such as benzodiazepines.	-Urge the patient to avoid alcohol and other CNS depressants, including benzodiazepines, during therapy without the prescriber's knowledge because severe respiratory depression can occur and may lead to death. -Tell the patient to change positions slowly to minimize orthostatic hypotension.	-Instruct the patient to notify the prescriber if diarrhea occurs and becomes prolonged or severe. -Advise the patient to notify the prescriber if he notices he is experiencing a decrease in the amount of urine voided or if there is blood in the urine.	-Advise the patient to rinse his mouth with water after each orally inhaled dose and to spit the water out. Tell the patient to contact his prescriber if they develop a mouth or throat infection. -Instruct patient on long-term therapy to have regular eye examinations.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook* (19th ed.).

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **Alert and responsive** **A&O x4** **No distress noted.** **Well groomed and appropriately dressed**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	 **Usual for ethnicity** **Dry & intact** **Warm** **Elastic, recoil <3 seconds** **No rashes or bruises** **Surgical incision noted on left inner leg, dressing clean and intact.** **SCDs on legs.** **14**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Atraumatic, normocephalic, no tracheal deviation, rise and fall of thyroid present. **Lymph nodes non-palpable** **TMs normal bilaterally, normal hearing, no drainage or pain** **Pupils equal round reactive to light, EOMs intact, no eye irritation, patient wears glasses** **Nose normal no polyps** **Mouth mucosa pink and moist, patient wears dentures, no tonsil swelling.**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	.**Regular rate and normal sinus rhythm, no murmurs rubs or gallops, normal S1 and S2** **Left pedal pulses weak 2+, right pedal pulse 3+, radial pulses equal 3+** **Cap refill <3 seconds** **No JVD or edema**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:**	. **Normal respiratory effort with no accessory muscle use, lungs clear to auscultation bilaterally, no wheezing rhonchi or crackles, rise and fall of chest equal, No ET tube, patient has been using incentive spirometer**

Placement (cm to lip): **Respiration rate:** **FiO2:** **Total volume (TV):** **PEEP:** **VAP prevention measures:**	
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	Regular diet at home **Soft diet in hospital** **177.8 cm** **72.6 kg** **Bowel sounds active in all 4 quadrants.** **BM: 1-29-23** **No pain, guarding, or masses noted upon palpation.** **Abdomen soft and nontender, no distention incision scars, drains, or wounds noted**
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** **Size:** **CAUTI prevention measures:**	 **Yellow** **Clear** **300 ml** **No abnormalities of genitalia** **Suprapubic catheter** **Unknown** **Assess for signs of infection, hand washing, use sterile technique, keep drainage container below bladder level, inspect for patency, tape catheter down,**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:**	. Alert, awake, and responsive. **Patient reports no headache, numbness, or tingling.**

Strength: **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**Patient uses no supportive devices.** **Strength in upper extremities equal 5+** **Strength in lower left extremity 4+** **Strength in lower right extremity 5+** **35 Moderate risk** **Independent with one standby** **No assistance needed with equipment or to stand and walk**
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no -** **Legs ☒ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**A&O x4** **Strength equal upper extremities** **Right leg stronger than left leg** **Pt cognitive and shows normal thought process** **Speech appropriate for age** **Senses intact** **Awake and alert**
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	**Patient reports wife helps him cope.** **Erik Ericksons stage: Integrity vs. despair** **Patient believes in God.** **Patient lives at home independently with wife**

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0730	**84 beats/min**	**122/57 mmhg**	**21 breath/min**	**36.5 C**	**97%**
1100	**70 beats/min**	**132/61 mmhg**	**26 breath/min**	**36.4 C**	**96%**

Vital Sign Trends/Correlation:

The patient has COPD, so his low oxygen is to be expected, as well as his elevated respirations. The patient's blood pressure is not incredibly elevated, although his diastolic pressure is much lower than his systolic pressure.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	**Numeric scale**	**Left leg**	**2/10**	**Cramping in calf**	**Applied SCDs.**
1100	**Numeric scale**	**Left leg**	**1/10**	**Cramping in calf**	**Helped patient transfer from bed to chair.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 18 g **Location of IV: Left peripheral antecubital.** **Date on IV: 1-30-23** **Patency of IV: Patent** **Signs of erythema, drainage, etc.: no phlebitis, no infiltration, flushes easily** **IV dressing assessment: Clean/dry/intact**	Saline lock
Other Lines (PICC, Port, central line, etc.)	
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y ☐ N ☐** **CLABSI prevention measures:**	N/A

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240 ml water **450 ml water**	**600 ml urine** **600 ml urine** **300 ml urine**

Nursing Care

Summary of Care (2 points)

Overview of care: Care for this patient included vitals every 4 hours, medication passes, suprapubic catheter care, monitoring intake and output, and neurovascular assessments of the lower extremities. The patient's care also included teaching about the incentive spirometer, applying the patient's SCDs, and getting the patent out of bed. The patient also had his femoral-popliteal bypass incision dressing changed.

Procedures/testing done: The patient had no procedures or testing done today.

Complaints/Issues: The patient had no complaints today. He did report his leg cramping but stated, "it feels much better than it did before."

Vital signs (stable/unstable): The patient's vitals were stable, although his blood pressure diastolic measurements were much lower than his systolic pressure.

Tolerating diet, activity, etc.: The client tolerated his diet and ate all his breakfast. The client is struggling with mobility because it hurts to walk. He transferred to his chair independently.

Physician notifications: The physician did not have to be notified of any status changes in the patient.

Future plans for client: The future plan for this patient includes discharging him home, having home health perform dressing changes, and monitoring for neurovascular complications.

Discharge Planning (2 points)

Discharge location: The patient will be going back home with his wife.

Home health needs (if applicable): The patient needs assistance with incision care for his femoral popliteal bypass.

Equipment needs (if applicable): The patient has poor mobility and could benefit from walker for safer mobility.

Follow up plan: The patient should attend all appointments made and report any signs of infection or complications which the procedure to the provider.

Education needs: The patient could use smoking cessation education as well as how to care for his incision.

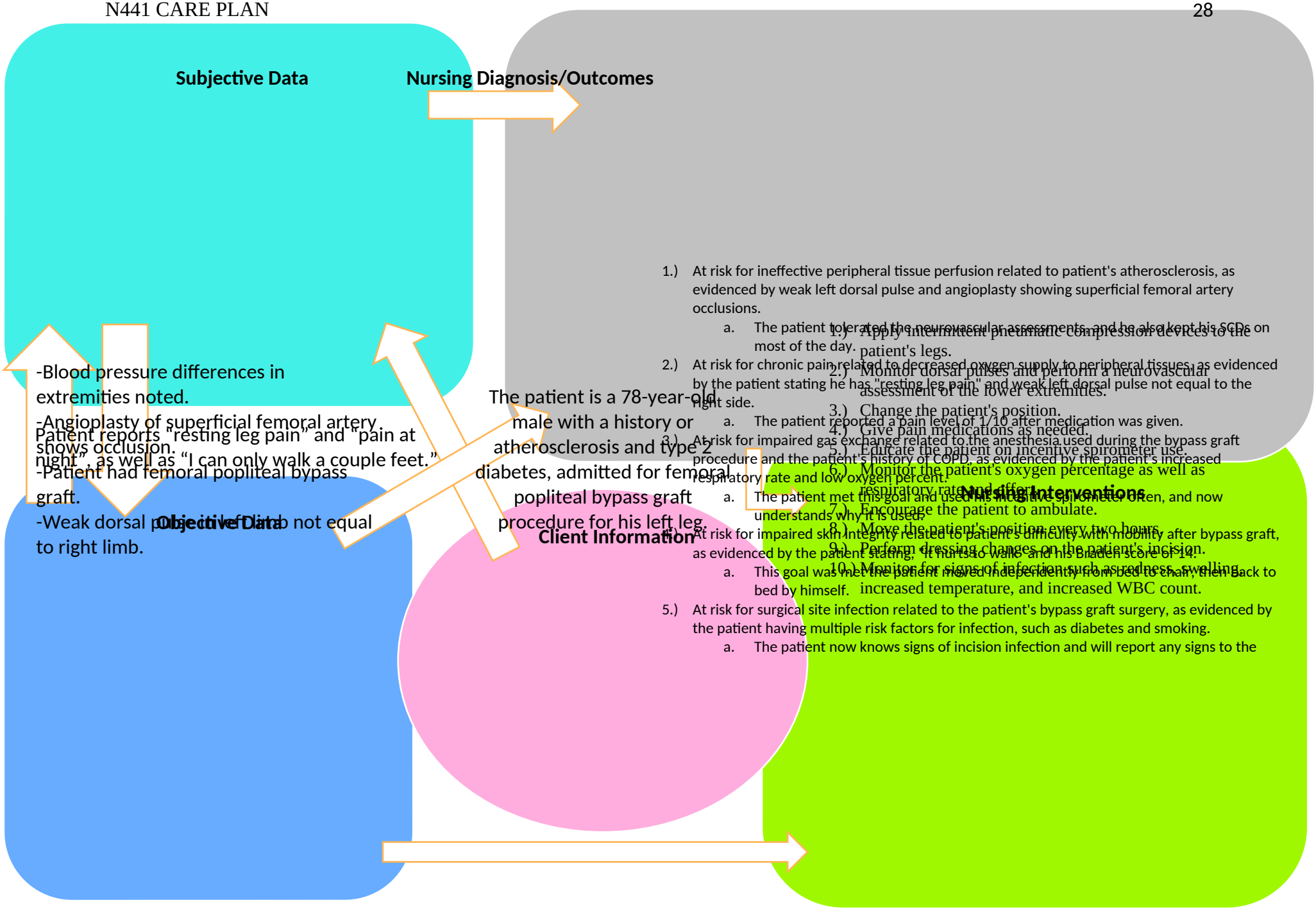
Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

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. At risk for ineffective peripheral tissue perfusion related to patient's atherosclerosis, as evidenced by weak left dorsal pulse and angioplasty showing superficial femoral artery occlusions.	This diagnosis was chosen because it is the patient's primary problem and why he had his femoral-popliteal bypass graft done.	1.Apply intermittent pneumatic compression devices to the patient's legs. 2.Monitor dorsal pulses and perform a neurovascular assessment of the lower extremities.	1. The patient will wear SCDs anytime he is sitting or in bed.	The patient tolerated the neurovascular assessments, and he also kept his SCDs on most of the day.
2. At risk for chronic pain related to decreased oxygen supply to peripheral tissues, as evidenced by the	This diagnosis was chosen because the patient was experiencing much pain before his procedure, called resting leg pain, which results from low oxygen to the peripheral	1. Change the patient's position. 2.Give pain medications as needed.	1. The patient will have minimal pain an hour after medication administration.	The patient reported a pain level of 1/10 after medication was given.

	patient stating he has "resting leg pain" and weak left dorsal pulse not equal to the right side.	tissues.			
3.	At risk for impaired gas exchange related to the anesthesia used during the bypass graft procedure and the patient's history of COPD, as evidenced by the patient's increased respiratory rate and low oxygen percent.	This diagnosis was chosen because the patient has COPD, his respiratory rate was consistently elevated, and he had a low oxygen percentage.	1.Educate the patient on incentive spirometer use. 2 Monitor the patient's oxygen percentage as well as respiratory rate and effort.	1. The patient will use the incentive spirometer every two hours during the day.	The patient met this goal and used his incentive spirometer often, and now understands why it is used.
4.	At risk for impaired skin integrity related to patient's difficulty with mobility after bypass graft, as evidenced	This diagnosis was chosen because the patient has difficulty with mobility due to his leg pain, so he is at increased risk for skin breakdown.	1.Encourage the patient to ambulate. 2. Move the patient's position every two hours.	1. The patient will ambulate from his bed to his chair.	This goal was met the patient moved independently from bed to chair, then back to bed by himself.

by the patient stating, "it hurts to walk" and his Braden score of 14.				
5. At risk for surgical site infection related to the patient's bypass graft surgery, as evidenced by the patient having multiple risk factors for infection, such as diabetes and smoking.	This diagnosis was chosen because the patient has a new surgical incision and has plenty of risk factors for infection already.	1.Perform dressing changes on the patient's incision. 2. Monitor for signs of infection such as redness, swelling, increased temperature, and increased WBC count.	1. The patient will monitor his incision when he gets home for signs of infection.	The patient now knows signs of incision infection and will report any signs to the provider if they occur.

Concept Map (20 Points):


Subjective Data
Patient reports "resting leg pain" and "pain at night", as well as "I can only walk a couple feet."
Objective Data
-Blood pressure differences in extremities noted.
-Angioplasty of superficial femoral artery shows occlusion.
-Patient had femoral popliteal bypass graft.
-Weak dorsal pedis pulse in left leg do not equal to right limb.
Client Information
The patient is a 78-year-old male with a history or atherosclerosis and type 2 diabetes, admitted for femoral popliteal bypass graft procedure for his left leg.
Nursing Diagnosis/Outcomes
1.) At risk for ineffective peripheral tissue perfusion related to patient's atherosclerosis, as evidenced by weak left dorsal pulse and angioplasty showing superficial femoral artery occlusions.
a. The patient tolerated the neurovascular assessments, and he also kept his SCDs on most of the day.
2.) At risk for chronic pain related to decreased oxygen supply to peripheral tissues, as evidenced by the patient stating he has "resting leg pain" and weak left dorsal pulse not equal to the right side.
a. The patient reported a pain level of 1/10 after medication was given.
3.) At risk for impaired gas exchange related to the anesthesia used during the bypass graft procedure and the patient's history of COPD, as evidenced by the patient's increased respiratory rate and low oxygen percent.
a. The patient met this goal and used the incentive spirometer often, and now understands why it is used.
4.) At risk for impaired skin integrity related to patient's difficulty with mobility after bypass graft, as evidenced by the patient stating, "it hurts to walk" and his Braden score of 14.
a. This goal was met the patient moved independently from bed to chair, then back to bed by himself.
5.) At risk for surgical site infection related to the patient's bypass graft surgery, as evidenced by the patient having multiple risk factors for infection, such as diabetes and smoking.
a. The patient now knows signs of incision infection and will report any signs to the
Nursing Interventions
1.) Apply intermittent pneumatic compression devices to the patient's legs.
2.) Monitor dorsal pulses and perform a neurovascular assessment of the lower extremities.
3.) Change the patient's position.
4.) Give pain medications as needed.
5.) Educate the patient on incentive spirometer use.
6.) Monitor the patient's oxygen percentage as well as respiratory rate and effort.
7.) Encourage the patient to ambulate.
8.) Move the patient's position every two hours.
9.) Perform dressing changes on the patient's incision.
10.) Monitor for signs of infection such as redness, swelling, increased temperature, and increased WBC count.