N321 Care Plan # 1

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission 2/23/2020	**Patient Initials** CA	**Age** 44	**Gender** Female
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Single	**Allergies** Toradol, Zithromax, Aspirin, Lisinopril
Code Status Full Code	**Height** 177.8 cm	**Weight** 70.9 kg	

Medical History (5 Points)

Past Medical History: Occlusion of femoral artery, Hypercholesterolemia, Type II Diabetes, Hypertension, Degenerative Disease

Past Surgical History: Hysterectomy, tubal ligation, tonsillectomy, lumbar spinal infusion, arthroscopic procedure, trigger point irrigation, cervical epidural steroid injection with fluoroscopy, and bilateral occipital nerve block

Family History: Chronic hypokalemia, type II diabetes, and SVT on maternal side.

Social History (tobacco/alcohol/drugs): smokes 2 packs/day for 30 years. Denies any use of alcohol or drugs.

Assistive Devices: Wheelchair, walker, and cane—never uses them.

Living Situation: Independently at home with daughter.

Education Level: GED

Admission Assessment

Chief Complaint (2 points): "Discoloration of toes"

History of present Illness (10 points): Patient presents today for "discoloration of toes." Patient states symptoms started about three days ago after scabbing progressed. Patient states the scabbing on the second and third toes on the left foot started about a week ago, and when the scabs fell off, her toes started to ooze clear liquid. Patient states this all started from a plant-

based infection she contracted a little over a week ago, and the antibiotics caused her toe nails to fall off, which then caused the scabbing, and later on necrosis of the toes. Patient states the pain is a constant burning sensation with intermittent sharp stabbing pain. The pain radiates up to her leg and is at a 9.7/10 on a pain scale. Patient states any movement, especially walking, and warmth aggravates the pain, and it is alleviated with ice water and cold air.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Peripheral arterial occlusion disease

Secondary Diagnosis (if applicable): Occlusion of left femoral artery

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

Peripheral arterial occlusive disease is the stenoses of one or more arteries, which affects the perfusion to tissues (Dominguez, 2020). The average blood flow to extremities while resting is 300-400 mL/min (Dominguez, 2020). Once an individual has started to move, the blood flow will increase, which also leads to cardiac output to increase and vasodilation of the tissue (Dominguez, 2020). The vasodilation will allow the oxygen demand to be met, and when the movement or exercise stops, the blood flow only takes a few minutes to return to normal (Dominguez, 2020).

An individual that suffers from peripheral arterial occlusive disease is still able to maintain normal blood flow as a healthy person, but when the patient suffers from PAOD, the blood flow will not be maintained while movement or exercise is taking place (Dominguez, 2020). The stenosis of the proximal artery inhibits vasodilation to take place (Dominguez, 2020). Claudication will take place when the blood flow is not able to keep up with the metabolic demands, and the blood flow to return to normal takes longer in an individual with PAOD than a healthy individual (Dominguez, 2020). Distal perfusion pressure is also abnormally altered in the extremities that are affected (Dominguez, 2020). In extremities that are normal, the heart's mean blood pressure to the ankles drops only a few millimeters of mercury-- it travels distally (Dominguez, 2020). The diameter vessels are smaller, where the resistance is higher, which

causes the increase in the systolic pressure (Dominguez, 2020). The ankle pressure is higher than the arm pressure in an individual that is healthy, and there is no change in pressure when the individual starts to move or exercise (Dominguez, 2020).

The stenotic segment in the atherosclerotic limb will reduce the experienced pressure via distal muscle groups (Dominguez, 2020). The ankle pressure is less than the pressure of a healthy person while both are at rest, and when movement has begun, the pressure is reduced by the significant atherosclerotic lesion (Dominguez, 2020). The pressure that would be distally is diminished significantly (Dominguez, 2020). The decreased pressure distally in a stenosis area caused by blood flow being increased is seen as a physics equation: Pressure difference = $8QvL/\pi r^4$ (Dominguez, 2020). The length and flow of the stenosis is directly proportional to the pressure gradient (Dominguez, 2020). The pressure gradient is also inversely proportional to the radius' fourth power; therefore, flow rate increase will increase the pressure gradient (Dominguez, 2020). The fourth power is the greatest impact on the lesion's pressure gradient, and when there is more than one occlusive lesion in the same artery, the pressure is greater (Dominguez, 2020).

An individual with PAOD is intermittent claudication characterized as cramping, aching, fatigue or weakness that happens when there is activity such as exercise (Hinkle & Cheever, 2018). As mentioned in our *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (2018), pain usually occurs distally where the occlusion is. This patient was experiencing pain in her muscle groups distally from where the occlusion was, she had pain just below her ankle to her toes. It was also stated that as the disease progresses, the pain gets more severe and limits the activity a person can endure for a period of time (Hinkle & Cheever, 2018). This patient stated she was unable to "get around much," due to feeling pain. It was stated that in the very severe cases, the patient will have pain even when resting (Hinkle & Cheever, 2018). The patient from today was experiencing rest pain, stating that she still felt it just relaxing, and nothing fully relieved the symptoms. As mentioned in *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (2018), the patient was experiencing skin and nail changes, along with her peripheral pulses absent and only found by Doppler. One of the pharmacologic therapies mentioned are the statins, and how they are able to improve the symptoms and help the patient walk further (Hinkle & Cheever, 2018). The statins improve vascular inflammation, endothelial dysfunction, plaque

stabilization, and thrombosis that help prevent amputation and repeat peripheral interventions to be reduced (Hinkle & Cheever, 2018). The patient from today is prescribed a medication in the statin family. Another intervention that could help with PAOD is removal of infected limb that has the potential for amputation (Hinkle & Cheever, 2018). The patient was consulted by the general surgeon due to her the necrosis of her second and third toes on her left foot, but a decision about surgery had not been made yet.

Pathophysiology References (2) (APA):

Dominguez, J. A. (2020, January 6). Peripheral Arterial Occlusive Disease. Retrieved February 28, 2020, from https://emedicine.medscape.com/article/460178-overview#a4

Hinkle, J.L., Cheever,K.H.(2018). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing* (14th ed.) Wolters Kluwer Health Lippincott Williams & Wilkins

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	3.90-4.98	4.77	4.29	
Hgb	13-17 g/dL (men) 12-15 g/dL (women)	15.2	13.7	
Hct	40-50% (men) 36-47% (women)	43.4	39.1	
Platelets	150-400 x 10^9/L	250	215	
WBC	4-10 x 10^9/L	12.9	8.3	WBC are elevated when there is infection. Patient had history of infection where she just finished a round of antibiotics (Hinkle & Cheever, 2018, pg 903).
Neutrophils	2-8 x 10^9/L	12.9	3.8	Neutrophils are the first to the site of attack from a pathogen. Patient has a history of infection, and possible current infection going on in her foot

				(Hinkle & Cheever, 2018, pg 903).
Lymphocytes	1-4 x 10^9/L	3.5	3.9	
Monocytes	0.2-0.8 x 10^9/L	2.5	5.9	Monocytes are second on the site of infection, and are elevated when there is a chronic disease. This patient has a couple chronic diseases (Hinkle & Cheever, 2018, pg 907).
Eosinophils	<0.5 x 10^9/L	0.2	0.2	
Bands	< 1 x 10^9/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	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	135-145 mmol/L	139	139	
K+	3.5-5 mmol/L	2.8	3.5	Potassium is needed for the walls of the blood vessels to relax, which lowers the blood pressure. If potassium is low, high blood pressure. This patient has a history of hypertension (AHA, 2016).
Cl-	95-105 mmol/L	102	101	
CO2	23-29 mEq/L	32	32	Increased CO2 can lead to hypertension. The patient has a history of hypertension (Hinkle & Cheever, 2018, pg 488).
Glucose	65-110 mg/dL	325	267	High glucose is found in diabetic patients. The patient has a history of type II diabetes (Hinkle & Cheever, 2018, pg 1397).
BUN	8-21 mg/dL	7	8	BUN measure kidney function, and with a chronic illness like diabetes the kidneys do not work normally. This patient has a history of uncontrolled type II diabetes (Hinkle & Cheever, 2018, pg 1397).
Creatinine	0.8-1.3 mg/dL	0.42	0.42	Creatinine measures kidney function. Patient has a history of

				uncontrolled type II diabetes, where kidney function is not within normal range (Hinkle & Cheever, 2018, pg 1397).
Albumin	35-50 g/L	N/A	N/A	
Calcium	8.5-10 mg/dL	8.8	8.8	
Mag	1.5-2 mEq/L	N/A	N/A	
Phosphate	0.8-1.5 mmol/L	N/A	N/A	
Bilirubin	2-20 µmol/L	N/A	N/A	
Alk Phos	50-100 U/L	N/A	N/A	
AST	8-33 U/L	N/A	N/A	
ALT	4-36U/L	N/A	N/A	
Amylase	60-160 U/L	N/A	N/A	
Lipase	20-180 U/L	N/A	N/A	
Lactic Acid	0.5-2mmol/L	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	0.86-1.14	N/A	N/A	
PT	11.9-15	43.4	70.6	Higher PT means the blood is taking longer than normal to clot. Vitamin K affects the blood's clotting factor. The patient has hypokalemia (Hinkle & Cheever, 2018, pg 910).
PTT	23-35	N/A	N/A	

D-Dimer	<0.5	N/A	N/A	
BNP	<125	N/A	N/A	
HDL	>40	N/A	33	Low HDL levels are seen in diabetic patients, and also seen familial hypercholesterolemia. This patient has a history of type II diabetes, and familial hypercholesterolemia (Hinkle & Cheever, 2018, pg 754).
LDL	<100	N/A	63	
Cholesterol	<200	N/A	130	
Triglycerides	<150	N/A	170	High triglycerides is seen in diabetic, inactive patients, and seen genetically. This patient has type II diabetes, and states hypercholesterolemia is familial (Hinkle & Cheever, 2018).
Hgb A1c	0.0-5.7	N/A	11.1	Elevated levels are indicated in diabetic patients. This patient is a type II diabetic (Medline Plus, 2018).
TSH	0.5-3.0	N/A	3.2	Elevated level means a quicker metabolism which means it cannot control your glucose levels. This patient has uncontrolled glucose levels in her type II diabetes (Hinkle & Cheever, 2018, pg 755).

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow(light/ pale-dark/deep amber) & clear/cloudy	N/A	N/A	
pH	4.5-8	N/A	N/A	
Specific Gravity	1.005-1.025	N/A	N/A	

Glucose	<130 mg/d	N/A	N/A	
Protein	<150 mg/d	N/A	N/A	
Ketones	0	N/A	N/A	
WBC	≤2-5 WBCs/hpf	N/A	N/A	
RBC	≤2 RBCs/hpf	N/A	N/A	
Leukoesterase	Negative	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 (APA):

American Association for Clinical Chemistry. (2019, October 25). *Blood Urea Nitrogen (BUN).* Retrieved February 24, 2020, from https://labtestsonline.org/tests/blood-urea-nitrogen-bun

American Heart Association. (2016, October 31). *How Potassium Can Help Control High Blood Pressure.* Retrieved February 28, 2020 from https://www.heart.org/en/health-topics/high-blood-pressure/changes-you-can-make-to-manage-high-blood-pressure/how-potassium-can-help-control-high-blood-pressure

American Association for Clinical Chemistry. (2019, September 23). *Stool Culture*. Retrieved September 28, 2019, from https://labtestsonline.org/tests/stool-culture.

American Association for Clinical Chemistry. (2018, December 22). *Sputum Culture, Bacterial*. Retrieved September 28, 2019, from https://labtestsonline.org/tests/sputum-culture-bacterial
American Association for Clinical Chemistry. (2019, September 23). *Blood Culture*. Retrieved September 28, 2019, from https://labtestsonline.org/tests/blood-culture
Lerma, E. (2015, December 15). *Urinalysis.* Retrieved September 28, 2019, from https://emedicine.medscape.com/article/2074001-overview
Mayo Clinic. (2019). *Complete blood count (CBC).* Retrieved September 28, 2019, from https://www.mayoclinic.org/tests-procedures/complete-blood-count/about/pac-20384919
Medline Plus. (2018, May 22). *Hemoglobin A1C (HbA1c) Test*. MedlinePlus. Retrieved February 28, 2020, from https://medlineplus.gov/lab-tests/hemoglobin-a1c-hba1c-test/
Sullivan, D. (2018, September 26). *CO2 Blood Test.* Retrieved September 28, 2019, from https://www.healthline.com/health/co2-blood-test
Vanchhawng, L. (2015, November 24). *Urine Culture.* Retrieved September 28, 2019, from https://emedicine.medscape.com/article/2093272-overview
Writers, R. N. S. (2019, September 15). *Laboratory Values: NCLEX-RN*. Retrieved September 28, 2019, from https://www.registerednursing.org/nclex/laboratory-values.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): CT Angiography Abdomen Aorta Runoff with Contrast

Diagnostic Test Correlation (5 points): A CT Angiography Abdomen Aorta Runoff with Contrast is used to evaluate the pathology of the musculoskeletal and see any intermittent claudication or peripheral arterial disease (Preuß et.al, 2016). The provider at this facility ordered this test due to the necrotic toes of the left 2nd and 3rd toes. This test demonstrated atherosclerosis of the abdominal aorta and right iliac artery. The right superficial femoral artery demonstrated severe stenosis distally, as well as the right proximal popliteal artery. It was found that the patient has moderate to severe tibioperoneal trunk disease on the right with a runoff of 3-vessel to her ankle and foot. Mild to moderate atherosclerosis was found of the left common iliac

artery and left femoral/popliteal arteries. Moderate tibioperoneal trunk disease was found on the left side to be moderate in the left infrapopliteal artery.

Diagnostic Test Reference (APA):

Preuß, A., Schaafs, L. A., Werncke, T., Steffen, I. G., Hamm, B., & Elgeti, T. (2016). Run-Off Computed Tomography Angiography (CTA) for Discriminating the Underlying Causes of Intermittent Claudication. *PloS one*, *11*(4), e0152780. https://doi.org/10.1371/journal.pone.0152780

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 (Jones et. Al 2019, pg 65-66)	Coreg/ carvedilol (Jones et. Al 2019, pg 187-189)	Fortamet/ metformin hydrochloride (Jones et. Al 2019, pg 755-757)	Pravchol/ pravastatin sodium (Jones, et. Al 2019, pg 1003-1004)	Lantus/ insulin glargine (Jones, et. Al 2019, pg 1307)

Dose	10 mg	12.5 mg	1000 mg	40 mg	45 Units
Frequency	Daily	BID	BID	QPM	BID
Route	PO	PO	PO	PO	SubQ
Classification	Calcium-channel blockers	Beta-Blocker	Antidiabetic	HMG-CoA Reductase Inhibitor	Long-acting insulin
Mechanism of Action	Calcium entrance into the vascular smooth muscle is inhibited, and the myocardium depolarizes. The coronary vascular smooth muscle is relaxed, and the coronary arteries vasodilate. The myocardial oxygen is increased in the vasospastic angina. The peripheral artery vasodilates, which causes the reduction in peripheral vascular resistance and blood pressure due to amlodipine directly acting on the vascular smooth muscle.	Cardiac output is reduced along with peripheral vascular resistance. The levels of atrial natriuretic peptides are increased.	The production of hepatic glucose is decreased. The absorption of glucose in the intestines is decreased, and insulin sensitivity is improved.	The hsCRP levels are decreased, and the cholesterol in the blood is lowered.	Acts on the target tissues (liver, skeletal muscle and adipose tissue) to regulate the metabolism of carbohydrate, fats and proteins. The peripheral glucose uptake is stimulated via cessation hepatic glucose production. Protein synthesis is enhanced.
Reason Client	Hypertension	Hypertens	Type II	Hypercholestero	Type II

Taking		ion	diabetes	lemia	diabetes
Contraindications (2)	Hypersensitivity; hypotension	Second- or third-degree AV block; cardiogenic shock	Severe renal dysfunction, acute/chronic metabolic acidosis	Active liver disease; pregnancy	Hypersensitivity, hypoglycemia
Side Effects/ Adverse Reactions (2)	Peripheral edema; pulmonary edema	Hypotension; weight gain; fatigue	Diarrhea, chest discomfort	Headache, nausea	Hypertension; antibody development
Nursing Considerations (2)	Teach about orthostatic hypotension precautions; monitor cardiovascular status	Take BP and HR before administering med; monitor blood glucose if diabetic.	Monitor for hypoglycemia; educate about increase risk for metabolic acidosis	Monitor BUN and creatinine; monitor liver enzymes before administering medication.	Educate on proper use; monitor for hypoglycemia.

Hospital Medications (5 required)

Brand/ Generic	Klor-Con/ potassium chloride (Jones et. Al 2019, pg 989-	Protonix/ pantoprazole (Jones et. Al 2019, pg 934-937)	Accupril/ quinapril (Jones et. Al 2019, pg 1045-1047)	Neurontin/ gabapentin (Jones et. Al 2019, pg 549-551)	Prozac/ fluoxetine (Jones et. Al 2019, pg 517-520)

	993)				
Dose	40 mEq	40 mg	20 mg	900 mg	40 mg
Frequency	BID	Daily	Daily	QID	Daily
Route	PO	PO	PO	PO	PO
Classification	Electrolyte supplement	Proton pump inhibitor; antiulcer agent	ACE inhibitor	Anticonvulsant	SSRI; antidepressant
Mechanism of Action	Contracts the skeletal, cardiac, and smooth muscles. Maintenance of renal function, along with acid-base balance, gastric secretion, and metabolism of carbohydrates.	The gastric acid secretion is suppressed via parietal cell hydrogen/ potassium ATP pump inhibition.	Angiotensin I does not convert into Angiotensin II which lowers the level, and increases the plasma renin activity. Aldosterone secretion is decreased. Lowers the blood pressure.	The binding sites on brain correspond with the calcium channels that have subunit alpha-2-delta-1. The excitatory neurotransmitter release is modulated, which takes part in epileptogenic and nociception.	Inhibits CNS neuron serotonin reuptake.
Reason Client Taking	Hypokalemia	GERD	Hypertension	Diabetic neuropathy	Anxious, depressed
Contraindications (2)	Hyperkalemia, renal failure	Hypersensitivity; in combination with rilpivirine-containing products	Angioedema from previous ACE inhibitor treatment; hypersensitivity	Hypersensitivity to its components or gabapentin.	MAOI used; educate on taking linezolid or IV methylene blue
Side Effects/ Adverse	Cardiac arrhythmia	Headache; dizziness	Hypotension; headache	Dizziness; hostility	Insomnia; nausea

Reactions (2)	, hypervolemia				
Nursing Considerations (2)	Monitor infusion site; monitor dosage	Report black/tarry stools; avoid alcohol	Monitor blood pressure; monitor signs of angioedema	Monitor for signs and symptoms of multiorgan sensitivity; check labs and report any abnormalities back	Assess therapeutic response; CNS and GI disturbances monitored

Medications Reference (APA):

Jones, et. Al. (2019). *Nurse's Drug Handbook 18th Edition.* Burlington, Massachusetts: Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness: Alert** **Orientation: A&O x4**	

Distress: Pain **Overall appearance: Put together, in gown**	
INTEGUMENTARY (2 points): **Skin color: Pink, normal to ethnicity bilaterally in upper extremities, red lower bilateral extremities with two necrotic toes** **Character: Elastic** **Temperature: Warm** **Turgor:** **Rashes: N/A** **Bruises: N/A** **Wounds: N/A** **Braden Score: 20** **Drains present: Y☐ N ☒** **Type:**	Patient states she is Caucasian and presents with pink skin bilaterally in upper extremities, appropriate to ethnicity. Skin bilaterally in lower extremities was red with necrotic toes of the second and third foot. Hair and eyes are brown in color. Patient has normal distribution of hair in extremities and throughout body. No notable skin turgor, rashes or bruises. Braden score: 20
HEENT (1 point): **Head/Neck: Normocephalic** **Ears: Intact** **Eyes: PERRLA, Nystagmus in left eye** **Nose: Intact** **Teeth: Full dentures**	Patient's head is at midline with no deviations. Patient's hair is brown, as well as her eyes. No abnormal drainage of the ears, tympanic membrane is pearly grey. PERRLA. Patient does use glasses for ADLs. No deviated septum, turbinates equal bilaterally of the nose. Patient's oral mucosa is moist and pink with no abnormalities noted. Patient does not have any teeth and uses full dentures.
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): Regular rate and rhythm, S1 and S2** **Peripheral Pulses: 2+ bilateral lower and upper extremities** **Capillary refill: < 3 secs bilaterally upper extremities, unable to obtain in lower extremities bilaterally.** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☒ N ☐** **Location of Edema: bilaterally in lower extremities.**	Patient is currently being monitored by telemetry. Patient was noted to be in NSR on admission. Auscultation of heart sounds x5, S1 and S2 were noted. Radial and pedal pulses assessed. Pulses graded 2+ bilaterally in in upper extremities and lower extremities at the posterior tibial artery. Capillary refill avg at < 3 secs. Patient shows sign of edema bilaterally in lower extremities from just below the ankle to toes. Negative for neck vein distention.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	No accessory muscle observed being when breathing. Trachea noted at midline, no deviations. Patient denies current SOB. Patient was not short of breath on admission. Patient

	does not present a non-productive cough. Anterior and posterior lung sounds were auscultated. Lung sounds were clear bilaterally. Patient was on room air, and does not use oxygen therapy at home.
GASTROINTESTINAL (2 points): **Diet at home: normal** **Current Diet: Consistent carb 75g CHO, 1500-1700 calorie diet** **Height: 177.8 cm** **Weight: 70.9 kg** **Auscultation Bowel sounds:** **Last BM: 2/23** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention: N/A** **Incisions: N/A** **Scars: N/A** **Drains: N/A** **Wounds: N/A** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	Patient is currently on a consistent carb 75 g CHO and 1500-1700 calorie diet. Patient states at home she consumes a normal diet. Patient denies ever drinking alcohol. Patient does not have any scars visible on the abdomen. Bowel sounds are active in all four quadrants, and denies pain on palpation. Abdomen was noted to be rounded, soft, and non-tender. No masses were present, no ostomy, NG tube, PEG tubes or drains. Patient last bowel movement yesterday morning, 2/23 and denies any rapid or current weight loss.
GENITOURINARY (2 Points): **Color: Yellow** **Character: Clear** **Quantity of urine: 300mL** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: N/A** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Patient is ambulating to restroom independently with SBA. Patient does not have a catheter, or dialysis. Patient's urine is yellow and clear. Patient denies pain, urgency, or hesitancy on urination. There is no abnormal odor, and patient is on I&O's.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM: Yes, bilaterally** **Supportive devices: Yes** **Strength: Equal** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score: 35** **Activity/Mobility Status:** **Independent (up ad lib) ☐Yes**	Fall Risk: 35 Patient demonstrates active ROM bilaterally in upper and lower extremities. Patient does not show neurovascular deficit. Patient is not a fall risk. Patient does not need assistance to get up or ambulate. Patient has a walker, cane, and wheelchair that she does not use. Patient does benefits from the assistance of glasses for vision, and dentures for eating.

Needs assistance with equipment ☐ NO **Needs support to stand and walk ☐ NO**	
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation: A&O x4** **Mental Status: Normal to client's baseline** **Speech: clear** **Sensory: Able to feel upper and lower extremities** **LOC: 15**	Patient is awake, and A&Ox4 in bed. Patient appears to be in moderate pain, and frustrated. English is the patient's first language, and is speaking at a normal pace. Patient states she is in constant pain, and they are not doing much to help relieve her of the symptoms. Patient MAEW for current condition and age. Patient's strength is equal bilaterally in upper and lower extremities. Patient shows no neurological deficit or damage.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s): Smokes** **Developmental level: Appropriate** **Religion & what it means to pt.: N/A** **Personal/Family Data (Think about home environment, family structure, and available family support): Lives with daughter, has neighbors**	Patient presents frustrated, but alert and oriented. Patient is wide awake and has constant discomfort due to her pain. Patient states it is hard to relax due to the pain. No family is present at the bedside at this time. Patient states she used to smoke three packs of cigarettes/day, but about three years ago decreased to one pack/day. Patient denies alcohol use. Patient states she completed her GED. Patient states she lives in Mattoon, IL with her daughter. Patient appears to have good family and friends support. Patient does not have a religious preference. Patient is not employed, she is retired. When asked the patient what a normal day is like, she states, "I clean when I can, but it is hard to get around due to the pain." Patient is a type II diabetic, and is experiencing some PAD symptoms; she would benefit from pain interventions while in the hospital and coping mechanisms included for when discharged home.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1215	**78 bpm**	**129/61**	**18/min**	**37.2 C**	**99% RA**
1515	**75 bpm**	**126/72**	**16/min**	**37.6 C**	**98% RA**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1215	**0-10**	**Feet, bilaterally**	**8.5/10**	**Burning with intermittent sharp pain**	**Norco 7.5 mg-325 mg**
1315	**0-10**	**Feet, bilaterally**	**8/10**	**Burning, with intermittent sharp pain**	**No interventions implemented due to Norco being given an hour prior.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 gauge **Location of IV: Peripheral Right and Left hands** **Date on IV: 2/22 for L hand and 2/23 for R hand** **Patency of IV: Patent, stable** **Signs of erythema, drainage, etc.: No** **IV dressing assessment: No phlebitis or infection, flushes easily**	Continuous infusion NaCl 0.9% 1,000mL 100mL/hr Heparin Drip 250 mL 13.5 mL/hr

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
960 mL	**400 mL**

Nursing Care

Summary of Care (2 points)

Overview of care: Patient has been at a constant 8/10 pain throughout the day. Patient has been able to get some rest throughout the day. Patient stayed on the floor the entire day. Patient complained of discoloration of second and third toes on her left foot, and a constant burning pain with intermittent stabbing sensation bilaterally in lower extremities. This is related

to the patient being diagnosed with peripheral artery occlusion disease and uncontrolled blood glucose. Acetaminophen and Norco are both being administered to help relieve the patient of pain.

Procedures/testing done: Patient has only had a CT of angiogram abdominal aorta with runoff to the lower extremities done while admitted. The patient has had labs drawn for PTT, CBC, and CMP. The abnormal lab findings are consistent with the patient's past medical history and her primary diagnosis for admission this hospital stay.

Complaints/Issues: Patient is complaining of discoloration of her toes on her left foot due to uncontrolled diabetes and peripheral artery occlusion disease. Patient also has complaints of the room not being cold enough to help with the pain of her lower extremities. Patient also has complaints of her 75g CHO and 1500-1700 calorie diet. This diet is based of her primary diagnoses and uncontrolled diabetes.

Vital signs (stable/unstable): Patient has maintained stable vital signs throughout her hospital stay.

Tolerating diet, activity, etc.: Patient is tolerating diet, when she decides to comply with diet. Patient is very frustrated with the dietary restrictions. Patient is tolerating activity moderately. Patient is able to ambulate a short distance, but not for a long distance due to pain in her lower extremities.

Physician notifications: Provider has been notified for blood glucose reading >180 for 2 consecutive readings, as this patient has had a blood glucose >180 every time it has been checked since admission. General surgery has been contacted due to the necrosis of the second and third toe on the left foot. Provider has been notified of abnormal lab value findings.

Future plans for patient: One future plan for the patient is getting her blood glucose under control, and be able to maintain it. Pain management is a future plan for the patient, since the patient has had a constant 8/10 pain today.

Discharge Planning (2 points)

Discharge location: Upon discharge the patient is going to go back to Mattoon, IL with her daughter. Patient will benefit from elevated her feet whenever possible, but not elevate higher than her heart. Management of blood glucose levels need to be achieved to help prevent further complications of present illness, and possible future illnesses. Patient is retired, but her daughter works the entire day during the week.

Home health needs (if applicable): Patient would benefit from home health sending a Registered Nurse visiting the patient a few times a week to check in on medication management and management of present illness.

Equipment needs (if applicable): Lancets and test strips, due to patient not having and stating this is the reason she does not check her blood sugar, or be compliant with insulin.

Follow up plan: Patient would benefit from a follow-up with her primary provider for management of diabetes, and also with the general surgeon to see possible options for her peripheral artery occlusion disease symptoms.

Education needs: Patient would benefit from re-education on importance of insulin compliance.

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Potential for skin ulcerations and breakdown R/T altered arterial circulation AEB atherosclerotic tissue (Swearingen, 2016, p. 148).	This is in relation to blood and oxygen not being perfused adequately to peripheral extremities.	**1.** Have patient walk as much as possible and perform ROM exercises **2.** Teach patient to assess her peripheral pulses, warmth, sensation, and lower extremities' color	Patient's circulation in the lower extremities is improved and tissue/skin perfusion is maximized AEB an absence or decrease in skin problems or ulcerations 2 days before discharge.
2. Chronic pain R/T ischemia and reduced circulation AEB necrosis of second and third toes of left food, and discoloration of other toes (Swearingen, 2016, p. 148-149).	This is in relation to pain and discomfort that accompanies sensation abnormalities due to the lack of tissue and skin perfusion.	**1.** Assess for the presence of pain on initial contact and periodically throughout care using a pain scale. **2.** Document pain relief obtained using a pain scale.	Patient's pain is decreased 2 days before discharge in relation to interventions used to improve perfusion.
3. Need for health teaching R/T infection, and impaired skin and tissue	This is in relation to circulation to extremities being decreased, therefore, the risk for infection and	**1.** Caution patient for easily traumatizing skin potential being increased. **2** Stress importance of	Patient is able to verbalize measures to help prevent infection and impaired skin and tissue integrity before being discharged.

integrity AEB circulation of the arteries decreased (Swearingen, 2016, p. 149)	other complications increases.	wearing footwear to properly fit to not cause friction.	

Other References (APA):

Swearingen, P. L. (2016). *All-In-One Nursing Care Planning Resource* (4 ed.). St. Louis, Missouri: ELSEVIER.

Concept Map (20 Points):

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Subjective Data

Patient states she is experiencing a constant, burning pain that has intermitted stabbing sensations. Patient rates 8/10 pain. Patient states pain is not maintained with Norco and acetaminophen PRN, cool environment, of elevation of lower extremities. Patient states she is in excruciating pain upon palpitations, being in a hot environment, and any movement.

Nursing Diagnosis/Outcomes

Potential for skin ulcerations and breakdown R/T altered arterial circulation AEB atherosclerotic tissue (Swearingen, 2016, p. 148).
Patient's circulation in the lower extremities is improved and tissue/skin perfusion is maximized AEB an absence or decrease in skin problems or ulcerations 2 days before discharge.
Chronic pain R/T ischemia and reduced circulation AEB necrosis of second and third toes of left food, and discoloration of other toes (Swearingen, 2016, p. 148-149).
Patient's pain is decreased 2 days before discharge in relation to interventions used to improve perfusion.
Need for health teaching R/T infection, and impaired skin and tissue integrity AEB circulation of the arteries decreased (Swearingen, 2016, p. 149)
Patient is able to verbalize measures to help prevent infection and impaired skin and tissue integrity before being discharged.

Objective Data

Patient's skin is dry and warm bilaterally in upper extremities; skin in lower extremities is warmer, red, and intact. Patient has 2+ pitting edema bilaterally in lower extremities. Patient has necrosis of the second and third toe on her left foot, and discoloration throughout rest of feet. Patient does demonstrate nystagmus, PERRLA. Patient is A&O x4, vital signs stable with a pain of 8-8.5/10. Patient has atherosclerosis in abdominal aorta, throughout right lower extremity, left common iliac artery and left femoral/popliteal arteries.

Patient Information

Caucasian female admitted on 2/23/2020 for peripheral arterial occlusion disease. Patient is 177.8 cm tall and weighs 70.9 kg. Patient is a full code status. Patient smokes 2 packs of cigarettes/ day. Patient has allergies to Toradol, Zithromax, aspirin, and lisinopril. Patient has a PMH of hyperlipidemia, type II diabetes, HTN, and degenerative disc disease.

Nursing Interventions

1. Have patient walk as much as possible and perform ROM exercises
2. Teach patient to assess her peripheral pulses, warmth, sensation, and lower extremities' color

1. Assess for the presence of pain on initial contact and periodically throughout care using a pain scale.
2. Document pain relief obtained using a pain scale.

1. Caution patient for easily traumatizing skin potential being increased.
2 Stress importance of wearing footwear to properly fit to not cause friction.

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