N321 Care Plan # 2

Lakeview College of Nursing

Macie Wilson

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
3-1-21	**GH**	**62**	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Non-Hispanic/Latino	**retired**	**married**	**Azathioprine Hydrocodone Nickel Sulfa antibiotics lanolin**
Code Status	**Height**	**Weight**	
full	**5'2"**	**180lb**	

Medical History (5 Points)

Past Medical History: HTN, HLD, Ulcerative colitis, cataracts, Deviated nasal septum, hypertrophy tonsils, cancer of buccal mucosa, rectal cancer, endometriosis, arthritis, RLS, OSA.

Past Surgical History: S/p total knee arthroplasty left.

Family History: Father: esophagus cancer. Mother: DVT.

Social History (tobacco/alcohol/drugs): No History

Assistive Devices: Walker and Gait belt.

Living Situation: Home with husband

Education Level: High School

Admission Assessment

Chief Complaint (2 points): SOB, Post-op left knee total arthroplasty.

History of present Illness (10 points): Georgia Hickson is a 62-year-old female with a past medical history of HTN, HLD, Ulcerative colitis, cataracts, DNS, hypertrophy tonsils, cancer of buccal mucosa, rectal cancer, endometriosis, arthritis, OSA and RLS. She does not have history of tobacco drug or alcohol use. She has gone through a total left knee

arthroplasty on March 1st, 2021. Client states she lives independently prior to surgery. Client will now be using a walker at home. Client used to wear CPAP for obstructive sleep apnea, however, has not since her tonsils were removed. Client is ready for discharge today if oxygen stats stay up while at rest. Client will need oxygen at home while sleeping.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): S/p left knee total arthroplasty.

Secondary Diagnosis (if applicable): Obstructive sleep apnea.

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

The client comes to the hospital for a scheduled total left knee arthroplasty. This surgery is also known as a total knee replacement. This surgery is done due to arthritis. A total knee replacement or arthroplasty is a surgical procedure done to resurface the knee due to damage by arthritis. Metal and plastic parts are used to cap the ends of the bones that form the knee joint along with the knee cap. In the surgery the end of the femur bone is removed and replaced with a metal shell. The tibia is also removed and replaced with channeled plastic piece with a metal stem. This allows the joint to still work but also allows for less wear and tear on the joints. Like any surgery there is always risk for infection other risk that come along side this procedure includes, blood clots, nerve damage, heart attack, and stroke. My client however did not experience any difficulties after the procedure. However, after staying the night for observation the healthcare team noticed she was often having desaturation during the night. Later the health care team found that the client was experiencing Obstructive sleep apnea.

Obstructive sleep apnea is a sleeping disorder that occurs when the muscles that support the soft tissues in the throat temporarily relax. This causes your airway to narrow or close completely. When this happens, the body is momentarily cut off from getting oxygen. This condition is usually treated with a CPAP. A CPAP is a device that deliveries pressure through a face mask or basal mask. However, this client is not compliant with the CPAP order therefore we are using oxygen at night to ensure adequate oxygen exchange.

This client Is now up for discharge however is being sent home with different assistive devices and orders. The client will now need to use a walker as she rebuilds strength in her knee joint. She will also be using oxygen when sleeping due to OSA and when preforming activity due to the pain she is experiencing in her knee. The client will also need physical therapy until her knee is back to working condition.

Pathophysiology References (2) (APA):

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

Peterson, L. (2020, November 14). Knee replacement. Retrieved March 10, 2021, from https://www.mayoclinic.org/tests-procedures/knee-replacement/about/pac-20385276

Laboratory Data (15 points)

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

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	**4.0-4.9**	**3.86**	**3.11**	**Surgery (Swearing & Wright, 2019).**

Hgb	**12.0-16.0**	**11.0**	**8.9**	**Surgery (Swearing & Wright, 2019).**
Hct	**37.0-48.0%**	**33.4**	**26.8**	**Surgery (Swearing & Wright, 2019).**
Platelets	**150-400**	**317**	**224**	**WDL**
WBC	**4.1-10.9**	**12.60**	**9.70**	**Inflammation (Swearing & Wright, 2019).**
Neutrophils	**1.50-7.70**	**N/A**	**7.3**	**WDL**
Lymphocytes	**1.00-4.90**	**N/A**	**1.2**	**WDL**
Monocytes	**0.00-0.80**	**N/A**	**0.70**	**WDL**
Eosinophils	**0.00-0.50**	**N/A**	**0.20**	**WDL**
Bands	**0-5%**	**N/A**	**N/A**	**WDL**

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	**136-145**	**N/A**	**138**	**WDL**
K+	**3.5-5.1**	**N/A**	**3.7**	**WDL**
Cl-	**98-107**	**N/A**	**106**	**WDL**
CO2	**21.0-32.0**	**N/A**	**25**	**WDL**
Glucose	**70-99**	**N/A**	**101**	**Medication (Swearing & Wright, 2019).**
BUN	**5-20**	**N/A**	**13**	**WDL**
Creatinine	**0.5-1.5**	**N/A**	**0.74**	**WDL**
Albumin	**3.4-5.0**	**N/A**	**2.9**	**Inflammation (Swearing & Wright, 2019).**
Calcium	**8.5-10.1**	**N/A**	**8.2**	**WDL**

Mag	**1.7-2.2**	**N/A**	**N/A**	**WDL**
Phosphate	**2.5-4.8**	**N/A**	**N/A**	**WDL**
Bilirubin	**0.2-0.8**	**N/A**	**N/A**	**WDL**
Alk Phos	**34-104**	**N/A**	**86**	**WDL**
AST	**12-31**	**N/A**	**N/A**	**WDL**
ALT	**7-40**	**N/A**	**N/A**	**WDL**
Amylase	**23-85**	**N/A**	**32**	**WDL**
Lipase	**0-160**	**N/A**	**13.0**	**WDL**
Lactic Acid	**0.5-1.6**	**N/A**	**0.7**	**WDL**

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	**0.9-1.2**	**1.1**	**2.9**	**Warfarin therapy (Swearing & Wright, 2019).**
PT	**11-12.5**	**N/A**	**N/A**	**N/A**
PTT	**24-45**	**N/A**	**N/A**	**N/A**
D-Dimer	**0-0.5**	**N/A**	**N/A**	**N/A**
BNP	**0-100**	**N/A**	**N/A**	**N/A**
HDL	**0-50**	**N/A**	**N/A**	**N/A**
LDL	**0-130**	**N/A**	**N/A**	**N/A**
Cholesterol	**0-200**	**N/A**	**N/A**	**N/A**
Triglycerides	**0-150**	**N/A**	**N/A**	**N/A**

Hgb A1c	**4.0-5.6**	**N/A**	**N/A**	**N/A**
TSH	**0.35-5.0**	**N/A**	**N/A**	**N/A**

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Colorless-Yellow, clear**	**N/A**	**N/A**	**N/A**
pH	**5.0-7.0**	**N/A**	**N/A**	**N/A**
Specific Gravity	**1.003-1.005**	**N/A**	**N/A**	**N/A**
Glucose	**negative**	**N/A**	**N/A**	**N/A**
Protein	**negative**	**N/A**	**N/A**	**N/A**
Ketones	**negative**	**N/A**	**N/A**	**N/A**
WBC	**0-25**	**N/A**	**N/A**	**N/A**
RBC	**0-20**	**N/A**	**N/A**	**N/A**
Leukoesterase	**negative**	**N/A**	**N/A**	**N/A**

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	**Normal**	**N/A**	**N/A**	**N/A**
Blood Culture	**Normal**	**N/A**	**N/A**	**N/A**
Sputum Culture	**Normal**	**N/A**	**N/A**	**N/A**
Stool Culture	**Normal**	**N/A**	**N/A**	**N/A**

Lab Correlations Reference (1) (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource medical-surgical, pediatric, maternity, and psychiatric-mental health*. St. Louis, MO: Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): CT of the left knee

Diagnostic Test Correlation (5 points): CT shows bone break down.

Diagnostic Test Reference (1) (APA):

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

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

Brand/Generic	**Gabapentin**	**Pregabalin**	**Simvastatin**	**Mesalamine**	**Hydrocodone acetaminophen**
Dose	**300mg**	**50mg**	**40mg**	**1200mg**	**5-325mg**
Frequency	**BID**	**3xdaily prn**	**1xNightly**	**3-400mg daily**	**Prn 4hr**
Route	**Oral**	**Oral**	**Oral**	**Oral**	**Oral**
Classification	**anti-seizure drugs**	**Anticonvulsants**	**HMG-CoA reductase inhibitors**	**Anti-inflammatory**	**Narcotic**
Mechanism of Action	**shows a high affinity for binding sites throughout the brain correspondent to the presence of the voltage-gated calcium channels, inhibit the release of excitatory**	**synthetic enzyme, glutamic acid decarboxylase and the glutamate synthesizing enzyme, branched-chain amino acid transaminase.**	**Works by slowing the production of cholesterol in the body to decrease the amount of cholesterol that builds up on the**	**Thought to diminish inflammation by blocking cyclooxygenase and inhibiting prostaglandin synthesis in the colon.**	**Blocks the receptors on nerve cells in the brain that give rise to the sensation of pain. Acetaminophen is a non-narcotic analgesic and antipyretic.**

	neurotransmitters in the presynaptic area which participate in epileptogenic.		**walls of arteries.**		
Reason Client Taking	**Nerve pain**	**Nerve pain**	**High cholesterol**	**ulcerative colitis**	**Pain**
Contraindications (2)	**COPD** **Depression**	**CHF** **Bleeding disorders**	**Liver disease** **Alcoholism**	**Renal disease** **Hepatitis**	**Respiratory** **Depression, asthma**
Side Effects/Adverse Reactions (2)	**Dizziness and Double vision.**	**Drowsiness and Sedation**	**Constipation and stomach pain**	**increased heart rate and pancreatitis**	**Alcohol** **CNS depression**
Nursing Considerations (2)	**Assess client for hypersensitivity to gabapentin.** **Give the drug with food to prevent GI upset.**	**Assess pain** **Monitor drowsiness**	**Ensure your pt. has tried cholesterol lowering diet 3-6 months before.** **Give in the evening.**	**Monitor carefully urinalysis, BUN, and creatinine, especially in patients with preexisting kidney disease** **Assess for S&S of allergic-type reactions**	**Monitor for effectiveness of drug for pain relief.** **Monitor for nausea and vomiting, especially in ambulatory patients.**

Home Medications (5 required)

Hospital Medications (5 required)

Brand/ Generic	**Warfarin**	**Naloxone**	**Pramipexole**	**0.9% normal saline**	**polyethylene glycol**
Dose	**5mg**	**0.5mg**	**0.5mg**	**100ML/Hr**	**17g**
Frequency	**1 per evening**	**Prn**	**Nightly**	**Continuous**	**Prn**

Route	**Oral**	**IV**	**Oral**	**IV**	**Oral**
Classification	**Anticoagulants**	**Narcotic antagonist**	**Dopamine agonists**	**Normal Saline (fluids)**	**Laxatives**
Mechanism of Action	**Indirectly interferes with blood clotting by depressing hepatic synthesis of vitamin K-dependent coagulation factors**	**Prevents or reverses the effects of opioids including respiratory depression, sedation and hypotension**	**Presynaptic D2 and D3 dopamine auto receptors and suppresses the synthesis and synaptic release of dopamine.**	**Isotonic solution, with the pharmacodynamic properties of sodium and chlori de ions that maintain the fluid and electrolyte balance in the body.**	**Works by causing water to be retained with the stool. This increases the number of bowel movements and softens the stool, so it is easier to pass.**
Reason Client Taking	**Blood clot prevention**	**Reverses the effects of opiates**	**Restless leg syndrome.**	**For electrolyte balance.**	**Constipation**
Contraindications (2)	**Hemorrhagic tendencies** **Vitamin C or K deficiency**	**Respiratory depression** **cardiotoxic drugs**	**Renal and liver function impairment** **Hypersensitivity to pramipexole**	**Congestive heart failure** **Severe renal impairment**	**low amount of calcium in the blood.** **severe ulcerative colitis.**
Side Effects/Adverse Reactions (2)	**Major or minor hemorrhage and N/V**	**Hyperventilation and slight drowsiness**	**Asthenia and general edema**	**Tachycardia and headache**	**Nausea and stomach cramps**
Nursing Considerations (2)	**Determine PT/INP prior to initiation of therapy and then daily until maintenance dosage is established.** **Adjust dose to maintain PT at 1½–2½ times the control.**	**May precipitate opiate withdrawal if administered to a patient who is opiate dependent.** **Monitor respirations and other vital signs**	**Monitor for S&S of orthostatic hypotension** **Monitor BUN and creatinine periodically**	**Monitor for fluid volume deficit** **Do not administer along with blood products.**	**Educate client on the use of the medication and to not overuse it.** **Monitor client's bowel habits when taking this medication.**

Medications Reference (1) (APA):

2020 nurses drug handbook. (2020). Burlington, MA: Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness: X4** **Orientation: X4** **Distress:** **Overall appearance: acceptable**	**Pt. is worried to go home due to poor ambulation.**
INTEGUMENTARY (2 points): **Skin color: WDL** **Character: WDL** **Temperature: WDL** **Turgor: WDL** **Rashes: WDL** **Bruises: WDL** **Wounds: incision in left Knee** **Braden Score: 21** **Drains present: Y☐ N ☒** **Type:**	**The patient's skin is warm, dry, intact, elastic, with no rashes or bruises.**
HEENT (1 point): **Head/Neck: WDL** **Ears: WDL** **Eyes: WDL** **Nose: WDL** **Teeth: WDL**	**Pt. head/neck symmetrical @ rest, there is no drainage present.**
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	**S1 and S2 are present.** Rhythm is sinus tachycardia. Pulses strong. No chest pain noted.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Regular depth and pattern, unlabored at rest however somewhat labored with activity due to pain.**

GASTROINTESTINAL (2 points): **Diet at home: regular** **Current Diet: regular** **Height: 5'2"** **Weight: 180lb** **Auscultation Bowel sounds: normoactive** **Last BM: Monday** **Palpation: Pain, Mass etc.: None** **Inspection: None** **Distention: WDL** **Incisions: WDL** **Scars: WDL** **Drains: WDL** **Wounds: WDL** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	.
GENITOURINARY (2 Points): **Color: yellow** **Character: clear** **Quantity of urine: N/A** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: WDL** **Catheter: Y ☐ N ☒** **Type:** **Size:**	
MUSCULOSKELETAL (2 points): **Neurovascular status: slightly impaired.** **ROM: imparied in left knee.** **Supportive devices: walker.** **Strength: generalized weakness.** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score: 21** **Activity/Mobility Status: 1 assist** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**Mobility impaired due to post-op arthroplasty left knee.**
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐**	.

PERLA: Y ☒ N☐ **Strength Equal: Y ☐ N ☒ if no -** **Legs ☒ Arms ☐ Both ☐** **Orientation:X4** **Mental Status: depression** **Speech: clear** **Sensory: WDL** **LOC: No**	Not equal due to left knee arthroplasty.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s): Dancing** **Developmental level: older adult** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	. Patient does not have a religion that she follows. Patient does have support of husband and son. She also has friend, but they live in different states.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
7:20am	**102**	**137/86 in Left arm.**	**18**	**99.5 F oral**	**96% on room air.**
11:45am	**97**	**117/73 Left arm.**	**18**	**97.8 F oral**	**94% on room air.**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
7:20am	**1-10**	**Left Knee**	**4**	**Aching**	**Pain medication given.**
10:55	**1-10**	**Left Knee**	**6**	**Aching**	**Pain medication given.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock

Size of IV: 20 **Location of IV: right arm** **Date on IV: 3-1-21** **Patency of IV: opened and not blocked.** **Signs of erythema, drainage, etc.: no** **IV dressing assessment: WDL**	0.9% normal saline

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
N/A	**N/A**

Nursing Care

Summary of Care (2 points)

Overview of care: Working on discharging the client today. Worked on ambulating in hall and the use of assistive devices.

Procedures/testing done: s/p total knee arthroplasty left.

Complaints/Issues: O2 stats at night are unstable due to OSA. Pt. also has low O2 stats when ambulating.

Vital signs (stable/unstable): stable.

Tolerating diet, activity, etc.: pt. does well with diet and is willing ambulate in hall.

Physician notifications: Surgery did goes as planned; Pt however is in more pain.

Future plans for patient: Discharging today.

Discharge Planning (2 points)

Discharge location: Home with husband

Home health needs (if applicable): Physical therapy at home.

Equipment needs (if applicable): Walker

Follow up plan: Follow up with primary care provider.

Education needs: Education done on walker safety and usage.

Education also done on icing leg with machine given.

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. Pain	**Pain related to surgery as evidence by "my knee just hurts so bad."**	**1.Assess.** **2.Pain medication administration.** **3. Ice therapy.**	**Pain was 4/10** **Partial goal met, pain was tolerable** **Goal partially met, Pt. states "my leg is feeling better."**
2. Gas exchange impaired	**Gas exchange impaired related to OSA as evidence by need for oxygen at night.**	**1. Uses oxygen at night.** **2.The uses of the incentive spirometer through the day.**	**Clients O2 drops to 88% while sleeping.** **Pt. agrees to wear O2 at night.** **Goal met, Pt. wears O2 through the night.**
3. Impaired mobility	**Impaired mobility related to knee surgery evidence by "my knee is hard to walk on."**	**1. Ambulation** **2 ROM**	**Pt. ambulates in the hall two times daily.** **Pt. allows for ROM.** **Goal met, Pt. allows us to ambulate and provide ROM.**

Other References (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. St. Louis, MO: Elsevier.

Concept Map (20 Points):

Subjective Data

Client states she is in a lot of pain due to her knee surgery. Client also states she lives with her husband at home however is nervous about going home due to her impaired mobility. She also states she doesn't wear her CPAP at night because it is inconvenient when getting up multiple times a night.

Nursing Diagnosis/Outcomes

Nursing diagnosis: Pain related to surgery as evidence by "my knee just hurts so bad."
Outcome: Pain was 4/10. Partial goal met; pain was tolerable. Goal partially met. Pt. states "my leg is feeling better."

Nursing diagnosis: Gas exchange impaired related to OSA as evidence by need for oxygen at night.
Outcome: Clients oxygen rate drops to 88% while sleeping, Pt. agrees to wear oxygen at night, Goal met, Pt. wears oxygen through the night.

Nursing diagnosis: Impaired mobility related to knee surgery evidence by "my knee is hard to walk on."
Outcome: Pt. ambulates in the hall two times daily. Pt. allows for ROM.
Goal met, Pt. allows us to ambulate and provide ROM.

Objective Data

Pt. was admitted 3/1 after a total left knee arthroplasty. Client is experience pain ranging from 4-6 in the knee post-op. Client was admitted longer due to low oxygen levels at night while sleeping.

Patient Information

Patients initials GH
62 years old
Female

Nursing Interventions

1.Assess.

2.Pain medication administration.

3. Ice therapy.

1. Uses oxygen at night.

2.The uses of the incentive spirometer through the day.

1. Ambulation

2 ROM