N311 Care Plan #

Lakeview College of Nursing

Aleisa Gutierrez

Demographics (5 points)

Date of Admission 10/7/20	Patient Initials T.C.	Age 45	Gender Male
Race/Ethnicity White/Caucasian	Occupation Unemployed	Marital Status Divorced	Allergies NKA (no known allergies)
Code Status Full code	Height 172 cm	Weight 102.700 kg	

Medical History (5 Points)

Past Medical History: Arthritis, hypertension, and degenerative disc disease (DDD).

Past Surgical History: Arthroscopy of left knee (Oct. 2017), Osteochondral autograft transfer (May 2018), Total knee replacement (Aug. 2019), Arthroplasty of knee revisited (Oct. 7 2020).

Family History: n/a

Social History (tobacco/alcohol/drugs): None as stated, Pt. denies use of tobacco, alcohol, and drugs.

Admission Assessment

Chief Complaint (2 points): Knee pain

History of present Illness (10 points): Patient experienced traumatic injury to the left knee at their workplace in 2017. Patient has undergone multiple surgical procedures over the years to help alleviate their pain. Pt. also states, "this is like my 5th surgery". They were admitted to Sarah Bush Hospital on October 7, 2020 for a surgical revision on their left knee. Upon assessment patient reported pain in their left knee rating it a 7 on the numeric scale and describing it as a constant "sharp and stabbing" sensation. Pt. states that "nothing is making it feel better" and that "bearing weight, bending, and standing makes it worse". Patient is currently taking Toradol and oxycodone hydrochloride and elevating the leg treat pain.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Knee arthroplasty due to traumatic knee injury

Secondary Diagnosis (if applicable): n/a

Pathophysiology of the Disease, APA format (20 points): 20% of adults experience knee pain and knee injuries are the second most common work-related injury. The knee is the largest synovial joint and it's made up of bones, cartilage, ligaments, and tendons. The knee is known to hold five times the body's weights and between the ends of the femur and tibia are disc-like cartilages called the meniscus which is known as the "shock absorbers." Ligaments keep the knee stable and moving in usual directions. Collateral ligaments are found on the side and keeps the knee in place and keep it from twisting. Valgus and varus forces are injuries that affect the lateral and medial sides of the knee. Valgus-directed forces are much more common, however, a combination of stressors can seriously damage knee function and mobility. Upon initial injury, the knee should be stabilized, and the RICE method should be implemented. After general assessment and examination of the knee's range of motion and neurovascular status, diagnosing methods such as X-rays, CT, and MRI scans are usually used. Treatments for knee injuries vary on its severity and location ranging from the RICE technique, splints, or surgical procedures.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P, "Pathophysiology: Introductory Concepts and Clinical

Perspectives" (2nd ed.). F.A. Davis Company

Common Knee Injuries - OrthoInfo - AAOS. (n.d.). Retrieved October 10, 2020, from

https://orthoinfo.aaos.org/en/diseases--conditions/common-knee-injuries/

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC <mark>Highlight All Abnormal Labs</mark>—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	3.80-5.41	5.41	n/a	
Hgb	11.3-15.2	16.4	14.8	
Hct	33.3-45.3	46.4	42.5	
Platelets	149-393	218	n/a	
WBC	4.0-11.7	5.6	n/a	
Neutrophils	45.3-79.0	59.5	n/a	
Lymphocytes	11.8-45.9	29.3	n/a	
Monocytes	4.4-12.0	8.8	n/a	
Eosinophils	0-6.3	1.7	n/a	
Bands	0-5.1	3.3	n/a	

Chemistry <mark>Highlight All Abnormal Labs</mark>—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	137	<mark>135</mark>	
K+	3.5-5.1	4.0	4.4	
Cl-	98-107	104	103	
CO2	21-31	26	25	
Glucose	74-109	103	<mark>166</mark>	
BUN	7-25	14	13	

Creatinine	.7-1.3	.81	.90	
Albumin	3.4-5.4	n/a	3.7	
Calcium	8.6-10.3	9.1	<mark>8.5</mark>	Calcium is low due to the operation on the bones that make up the knee joint
Mag	1.6-2.5	n/a	n/a	
Phosphate	2.5-4.5	n/a	n/a	
Bilirubin	.3-1.0	n/a	.4	
Alk Phos	34-104	n/a	71	

Urinalysis <mark>Highlight All Abnormal Labs</mark>—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	Pale yellow-deep amber	n/a	n/a	
pH	5-8	n/a	n/a	
Specific Gravity	1.005-1.034	n/a	n/a	
Glucose	<130 mg/d	103 mg/d	166 mg/d	
Protein	<150 mg/d	n/a	n/a	
Ketones	negative	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 <mark>Highlight All Abnormal Labs</mark>—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	**<10,000 colonies/ml**	**n/a**	**n/a**	
Blood Culture		**n/a**	**n/a**	
Sputum Culture		**n/a**	**n/a**	
Stool Culture		**n/a**	**n/a**	

Lab Correlations Reference (APA): Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019).

Mosby's diagnostic and laboratory test reference. St. Louis, MO: Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (10 points): n/a

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/Generic	Oxycodone hydrochloride/Percocet	Toradol/ ketorolac tromethamine	Senokot-S/ Sennosides-Docusate Sodium	Aspirin/Asprin	Fish oil/omega 3 polyunsaturated fatty acids
Dose	**5mg-325 mg**	**30 mg**	**8.6mg -50mg**	**325 mg**	**1,000 mg**
Frequency	**4 hr prn**	**QID**	**BID, PRN**	**BID**	**QD**
Route	**PO**	**IV push**	**PO**	**PO**	**PO**

Classification	Opioid analgesic	NSAID analgesic	Stimulant laxative	NSAID/antiplatelet	Fish oil derivative, Antilipemic
Mechanism of Action	**Affects emotional perception of pain at the central nervous system by inhibiting the release of acetylcholine and gamma aminobutyric.**	**Reduces pain and inflammation by blocking cyclooxygenase and inhibiting prostaglandins which functions to mediate an inflammatory response.**	**Retain water in intestines increasing water in stool making it easier to pass**	**Aspirin blocks cyclooxygenase suspending prostaglandins synthesis and an inflammatory response. Aspirin also impeded the production of thromboxane A2, which inhibits platelet aggregation**	**Reduces triglycerides synthesis in liver by inhibiting acyl-CoA 1,2 diacylglycer ol acyltransfer ase.**
Reason Client Taking	**For pain**	**For pain**	**For constipation**	**To prevent blood clots after surgery, for pain**	**To lower blood pressure**
Contraindicati ons (2)	**Acute bronchial asthma or hypercarbia**	**Risk for renal impairment, peptic ulcers**	**Appendicitis, nausea**	**Active bleeding, coagulation disorders**	**Hypersensiti vity to omega 3 polyunsatur ated fatty acids or their components**
Side Effects/Advers e Reactions (2)	**Bradycardia, seizures**	**Aseptic meningitis, acute pancreatitis**	**Cramping, diarrhea**	**Thrombocytopenia, hepatotoxicity**	**Acid or sour stomach, belching**

Medications Reference (APA):

Jones & Bartlett Learning. (2019). 2019 Nurse's Drug Handbook. Burlington, MA

Omega-3 polyunsaturated fatty acids Side Effects: Common, Severe, Long Term. (n.d.).

        Retrieved October 09, 2020, from https://www.drugs.com/sfx/omega-3-polyunsaturated-

        fatty-acids-side-effects.html

Sennosides-Docusate Sodium Oral : Uses, Side Effects, Interactions, Pictures, Warnings &

Dosing. (n.d.). Retrieved October 09, 2020, from https://www.webmd.com/drugs/2/drug-

16713/sennosides-docusate-sodium-oral/details

Assessment

Physical Exam (18 points)

GENERAL: Alertness: Orientation: Distress: Overall appearance:	Alert and responsive A&O x4 Pain Overall appearance is appropriate
INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: . Braden Score: Drains present: Y☐ N ☒ Type:	 Skin color normal for ethnicity Intact Warm Elastic turgor No rashes No bruises Surgical site wound 20 n/a
HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:	 Head and neck symmetrical and normal in size Ears free of discharge and regular hearing acuity Eyes are symmetrical EOM Nose symmetric no deviation

	Teeth are intact
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:**	**Normal S1 and S2 heart sounds, no murmurs detected.** **Heart rhythm is normal** **Peripheral pulses 3+** **Capillary refill 1 sec** **n/a** **n/a** **n/a**
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character**	**Respiration are regular with full use of accessory muscles. Breath sounds are clear. Lungs aeration are equal**

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:
	Diet at home is regular
	Current diet is regular
	172 cm
	102.7 kg
	Bowel sounds are active in all 4 quadrants
	Last BM 10/7 approx. 10:00
	No abnormal pain/masses/tenderness upon palpation
	No distention, incision, scars, drains, and wounds found during inspection

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:**	**n/a** **n/a** **n/a** **No pain, hesitancy, or burning during urination** **n/a** **n/a**

Size:	
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **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 ☐**	**Leg hot to the touch and inflamed due to recent surgery, other extremities appear to warm to the touch** **Passive ROM weak left leg** **Gait belt and walker** **70** **Activity and mobility impaired due to left knee pain** **Use of gait belt and walker** **Y – assist with gair belt and walker**
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no -** **Legs ☒ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**Immobility of left knee due to surgery and pain** **Weakness of left knee due to surgery and pain** **A&O x4** **Normal cognition** **Speech is clear** **All sensory perceptions are normal; no numbness or tingling sensations** **Pt. alert & awake and able to answers appropriately**
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):**	**Significant other** **Mature** **None** **Pt. currently lives with girlfriend. Patient notes that she is her support system**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
11:30	**80**	**140/68**	**18**	**97.7**	**93**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
11:30	Numeric 0-10	Left knee	5/10	Sharp/ stabbing	Elevating leg and keeping weight off it.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2094.5 mL	840 mL

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

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. Impaired	Pt. recently had a	1. Perform	Goal met. Pt. has

walking related to knee arthroplasty as evidenced by "it's hard for me "bearing weight, bending, and standing makes it worse".	**total knee arthroplasty which has impaired the left leg's range of motion.**	**range of motion exercises every 2hrs.** 2. **Teach patient about neurovascular impairment and function to report any alterations in strength, sensations, and mobility.**	**regained mobility as the performance of ROM was able to stimulate the muscles used for walking.** **Goal met. Pt.'s knee has fully recovered and regained mobility as constant assessment after surgery was quick to identify any abnormalities that may hinder healing.**
2. **Chronic pain related to knee injury and surgery as evidenced by "this is like my 5th surgery".**	**Pt. endured a traumatic knee injury and has undergone multiple procedures to alleviate pain.**	**1. Administer pain medication** **2. Apply cold therapy on operative site**	**Goal met. Pt. was given multiple pain medications around the clock and as needed. Upon assessment, Pt.'s pain was reported to have gone down significantly.** **Goal met. Pt. was given an ice pack to be places on the operative site, reducing inflammation, swelling, and pain.**

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 (5th

ed.). Grand Rapids, MN: Elsevier.

Concept Map (20 Points):

Subjective Data

Objective Data

Client's chief complaint: Knee pain
Vitals:
BP: 140/68
RR: 18
Temp: 97.7 F
SpO2%: 93 %
Pulse: 80

Patient Information
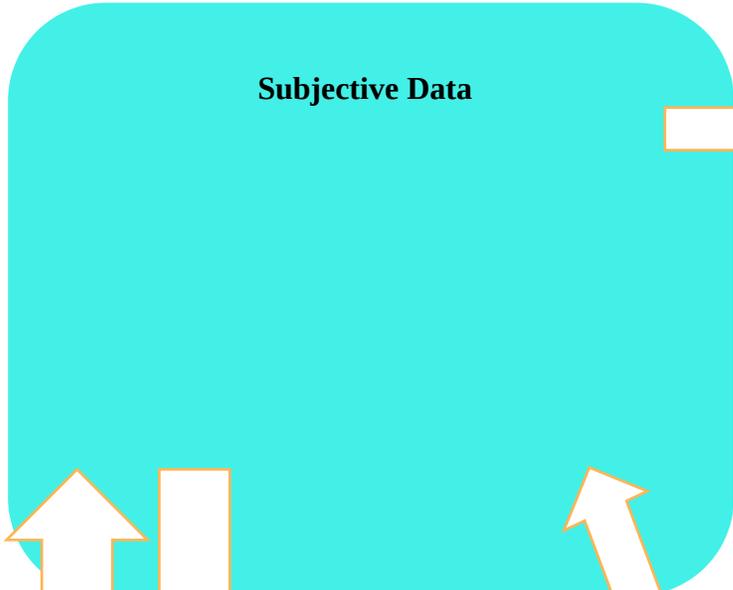
Nursing Diagnosis/Outcomes

Impaired walking related to knee arthroplasty as evidenced by "it's hard for me "bearing weight, bending, and standing makes it worse".

- **Goal met. Pt. has regained mobility as the performance of ROM was able to stimulate the muscles used for walking.**
- **Goal met. Pt.'s knee has fully recovered and regained mobility as constant assessment after surgery was quick to identify any abnormalities that may hinder healing.**

2. **Chronic pain related to knee injury and surgery as evidenced by "this is like my 5th surgery".**
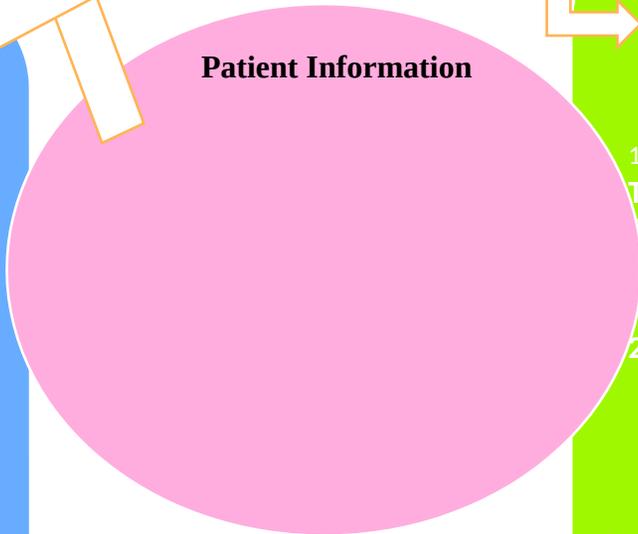
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- **Goal met. Pt. was given an ice pack to be places on the operative site, reducing inflammation, swelling, and pain.**

Nursing Interventions

1. **Perform range of motion exercises every 2hrs.**
Teach patient about neurovascular impairment and function to report any alterations in strength, sensations, and mobility.
Administer pain medication
2. **Apply cold therapy on operative site**