N311 Care Plan #4

Lakeview College of Nursing

Kaitlin Carter

Demographics (5 points)

Date of Admission 11/02/20	Patient Initials R.V.	Age 68	Gender Male
Race/Ethnicity White/Caucasian	Occupation Retired	Marital Status Married	Allergies Penicillin, Tramadol, Latex
Code Status Full Code	Height 6'2''	Weight 244lb	

Medical History (5 Points)

Past Medical History: Osteoarthritis, Anxiety, Aortic stenosis, CVA, Heart disease, Myocardial infarction, Hypertension

Past Surgical History: Arthroplasty of R knee, Rotator cuff repair, Stent placement, Arthroscopy of L and R knees

Family History: Mother: Heart disease, Father: Heart disease, lung cancer. Sister and brother: heart disease

Social History (tobacco/alcohol/drugs): Pt reports former use of tobacco, states that he quit smoking 4 years ago. Reports alcohol use 1-2 times per month and no recreational drug use

Admission Assessment

Chief Complaint (2 points): Knee pain, scheduled surgery R knee arthroplasty

History of present Illness (10 points): On November 2nd, 2020, a 68-year-old married male was admitted to Sarah Bush Lincoln Health Center with knee pain for a scheduled right knee arthroplasty. Patient states that his knee pain has been an issue for over twenty years but has worsened within the past year. He states that pain is a throbbing pain and that "The pain worsens when working outside on my farm and I am moving around too much." He has used heat therapy with little to no relief. He takes Tylenol arthritis for the pain and says that it is helpful for pain relief if the pain is not too severe.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Osteoarthritis

Secondary Diagnosis (if applicable):

Pathophysiology of the Disease, APA format (20 points): Osteoarthritis frequently occurs gradually and worsens over time. It is caused by the degeneration of the joints that normally occurs due to aging, but it can happen to people of all ages. It is known to affect the hips, hands, neck, knees, and back, but the hand and knee joints are most commonly affected. OA occurs when cartilage between the bones is broken down which causes the joints to become painful, swollen, and difficult to move (Capriotti, 2020). In the book *Davis Advantage for Pathophysiology,* it states that "At the margin of cartilage loss, osteophytes can develop… Osteophytes are small bony projections that can impinge on nerves and obstruct the blood supply to the joint's components" (Capriotti, 2020, p.977). Edematous fluid then begins to accumulate in the joint with OA and stretches out the joint capsule which causes it to become less effective. This process can cause sensory nerves to become stretched out and damaged which then results in a significant amount of pain during movement of the joints (Capriotti, 2020).

Some of the most common signs and symptoms of OA can include edema around the joints, joint stiffness, muscle weakness around the joint, pain or an aching in the joint during movement or at the end of the day, a cracking or clicking sound when the joint is bent, joint instability, or limited range of motion (Osteoarthritis n.d.). There are many different diagnostic tests that can be used to detect if a patient has osteoarthritis. These tests include X-Rays, CT scans, MRI's, ultrasounds, and joint aspiration (Capriotti, 2020).

OA is not reversible but can be treated with a variation of different medications in order to reduce pain. Corticosteroids, NASID's and Analgesics are all different pain medication options. (Osteoarthritis n.d.). In more severe cases, damaged joints can be replaced through surgical procedures and this is what happened with my patient. My patient experienced chronic pain for 20 years with worsening discomfort within the last year. Due to this, he had a right knee arthroplasty. Having this done will help to alleviate the chronic pain that he experienced, and it will allow him to have a more comfortable and better quality of life.

Pathophysiology References (2) (APA):

Capriotti, Theresa M. (2020), "*Pathophysiology: Introductory Concepts and Clinical Perspectives*" Philadelphia: FA Davis

Osteoarthritis. (n.d) Retrieved November 3rd, 2020, from

www.arthritis.org/diseases/osteoarthritis

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	4.28 – 5.56	<mark>No admission values for pt</mark> *	<mark>No values for pt today</mark> *	
Hgb	Normal: 13.0 – 17.0 Critical: 7.0 – 20.0	*	<mark>12.8</mark>	Decreased due to blood loss from surgery
Hct	38.1 – 48.9	*	<mark>37.2</mark>	Decreased due to blood loss from surgery
Platelets	Normal: 149 – 393 Critical: 50 - 1000	*	*	
WBC	4.0 – 11.7	*	*	
Neutrophils	45.3 – 79.0	*	*	
Lymphocytes	11.8 – 45.9	*	*	
Monocytes	4.4 – 12.0	*	*	
Eosinophils	0.0 – 6.3	*	*	
Bands	0 – 10%	*	*	

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	
K+	Normal: 3.5 – 5.1	*	4.4	

	Critical: 2.5 – 6.0			
Cl-	98 - 107	*	99	
CO2	21 - 31	*	24	
Glucose	Normal: 74 – 109 Critical: 40 - 450	*	<mark>170</mark>	Possibly increased due to pt taking Xanax
BUN	7 - 25	*	17	
Creatinine	Normal: 0.70 – 1.30 Critical: Greater than 25.20	*	0.87	
Albumin	3.5 – 5.2	*	4.0	
Calcium	Normal: 8.6 – 10.3 Critical: 6.0 – 12.0	*	8.6	
Mag	1.6 – 2.2	*	*	
Phosphate	2.5 – 4.5	*	*	
Bilirubin	Normal: 0.3 – 1.0 Critical: Greater than 15.0	*	0.8	
Alk Phos	3.4 - 104	*	65	

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	Yellow/Clear	*	*	<mark>No cultures completed for pt*</mark>
pH	5.0 – 8.0	*	*	
Specific Gravity	1.005 – 1.034	*	*	
Glucose	Normal	*	*	
Protein	Negative	*	*	
Ketones	Negative	*	*	
WBC	Less than 5	*	*	
RBC	0 – 3	*	*	
Leukoesterase	Negative	*	*	

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	No growth	*	*	<mark>No cultures completed for pt*</mark>
Blood Culture	No growth	*	*	
Sputum Culture	No growth	*	*	
Stool Culture	No growth	*	*	

Lab Correlations Reference (APA):

Van Leeuwen, A. M., & Bladh, M. L. (n.d.). *Davis's comprehensive manual of laboratory and diagnostic tests with nursing implications*. F A DAVIS.

Normal ranged lab values pulled from *Sarah Bush Lincoln Health Center*

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

No diagnostic tests/imaging were performed on my patient during admission

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

Medications (5 required)

Brand/Generic	Dilaudid/ Hydromorph one	Coreg/ Carvedilol	Zofran/ Ondansetro n	Xanax/ Alprazolam	Toradol/ Ketorolac
Dose	0.5mg	6.25mg	4mg	0.5mg	15mg
Frequency	Q2 hours	BID	Q6 hours	BID PRN	Q6 hours PRN

		PRN		PRN		
Route	**IV Push**	**PO**	**IV Push**	**PO**	**IV Push**
Classification	**Opioid**	**Antihypertens ive**	**Antiemetic**	**Benzodiazepine, Anxiolytic**	**Analgesic**
Mechanism of Action	**Binds with opioid receptors in the spinal cord and CNS altering the perception and emotional response to pain**	**Reduces cardiac output and tachycardia, causes vasodilation and decreased peripheral vascular resistance which reduces blood pressure and cardiac workload**	**Blocks serotonin receptors centrally in the chemorecept or zone and peripherally at vagal nerve terminals in intestine reducing nausea and vomiting**	**Increase effects of GABA and other inhibitory neurotransmitte rs by binding to specific benzodiazepine receptors in cortical and limbic areas of the CNS, GABA inhibits excitatory stimulation which controls emotional behavior**	**Blocks cyclooxygenase and inhibits prostaglandins which reduces inflammation and relieves pain**
Reason Client Taking	**Pain management**	**Hypertension**	**Nausea**	**Anxiety**	**Pain**
Contraindicati ons (2)	**Acute asthma** **Paralytic ileus**	**Asthma** **Severe bradycardia**	**Concomitan t use of apomorphin e** **Congenital long QT syndrome**	**Acute angle glaucoma** **Ketoconazole therapy**	**Advanced renal impairment** **Breastfeeding**
Side Effects/Advers e Reactions (2)	**Anxiety** **Drowsiness**	**Asthenia** **Dizziness**	**Agitation** **Dizziness**	**Dizziness** **Drowsiness**	**Constipation** **Hypertension**

Medications Reference (APA):

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook*. Burlington, MA

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Alert and oriented to person, place, and time x4** **Not in distress** **Hair is neat and clean, appears well groomed**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	**Pink** **Dry/Normal** **Warm** **Turgor is appropriate; elastic** **None** **Small bruise visible on L arm** **Surgical wound on R knee** **16**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Head and neck appear symmetrical** **Ears are symmetrical, no drainage** **Wears glasses** **Nose is symmetrical with no drainage** **Teeth appear well groomed** .
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:**	**Heart sounds are normal** **No murmurs or gallops** **Peripheral pulses are symmetric** **Capillary refill is less than 2 seconds**

RESPIRATORY: **Accessory muscle use: Y ☐ N ☒** **Breath Sounds: Location, character**	**Respirations are regular, symmetrical and unlabored, no wheezing**

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
	Regular
	6'2''
	244lb
	Bowel sounds appear normoactive in all four quadrants, last BM on Sunday 11/01
	No tenderness
	No abnormalities found upon inspection
	No distention noted
	Incision on R knee due to arthroplasty
	No visible scars
	No drains
	Surgical wound appears normal and intact, no drainage

GENITOURINARY:
Color:
Character:
Quantity of urine:
Pain with urination: Y ☐   N ☒
Dialysis: Y ☐   N ☒
Inspection of genitals:
Catheter: Y ☐   N ☒
   Type:
   Size:
	Yellow
	Clear
	Voided 1x on shift
	
	Unable to inspect genitalia, pt refused

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 ☐**	**ROM appropriate, no issues** **Requires gait belt and walker** **Strength in both upper and lower extremities, grasp was strong and even** **40 (Sarah Bush fall risk assessment) high fall risk** **Unable to get up alone, requires 1 assist with**

	gait 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:**	 **Oriented to person, time, and place** **Cognitive and mature** **Articulate** **Alert** **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 enjoys horseback riding and farming** **Mature** **Christian religion, very active in church** **Lives at home with his wife, dog and two cats**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0820	**74**	**105/55**	**20**	**97.5F**	**96**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0915	**Numeric: 0-10**	**Knee**	**8**	**Throbbing**	**Ice pack provided** **Repositioning completed** **Pain meds given by RN**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)

16 oz water 12oz can of soda 828mL of fluids	Voided 1x unmeasured

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. **Alterations in comfort**	**Alterations in comfort related to surgery as evidenced by patient reporting pain as an 8/10** ***I chose this nursing diagnosis because my patient had surgery and kept complaining of knee pain and discomfort**	**1. Provide ice to apply to affected area in order to reduce swelling and inflammation** **2.Pain medication administered by RN**	**Goal met, patient applied ice to right knee for approximately 20 minutes and advised that it helped some with the pain.** **Goal met, pain meds were given by the RN and the patient stated an hour later during reassessment that his pain level had decreased to a 5**

2. Impaired mobility	Impaired physical mobility related to surgery as evidenced by the patients need to use a walker and gait belt with staff	1. Reposition using pillows to prevent skin break down and maximize comfort	Goal met, patient repositioned to a better position utilizing pillows for elevation and comfort.
	*I chose this because my patient had to utilize staff assistance to ambulate due to just having knee surgery	2 Assist patient with passive range of motion exercises	Goal partially met, PROM was tolerated for only a few minutes- pt advised that what we were able to complete did feel good

Other References (APA):

Concept Map (20 Points):

Subjective Data

Objective Data

Patient Information

Vitals:
Temp: 97.5F,
Pulse: 74
RR: 20
SpO2%: 96%
BP: 105/55

Patient is a 69-year-old Caucasian married male who presents with knee pain and for a scheduled R knee arthroplasty

Nursing Diagnosis/Outcomes

1. Alterations in comfort related to surgery as evidenced by patient reporting pain as an 8/10
   - Goal met, patient applied ice to right knee for approximately 20 minutes and advised that it helped some with the pain.
   - Goal met, pain meds were given by the RN and the patient stated an hour later during reassessment that his pain level had decreased to a 5.
2. Impaired physical mobility related to surgery as evidenced by the patients need to use a walker and gait belt with staff for ambulation
   - Goal met, patient repositioned to a better position utilizing pillows for elevation and comfort.
   - Goal partially met; PROM was tolerated for only a few minutes, but patient advised that what was completed did feel good

- The pain worsens when working outside on my farm and I am moving around too much.

Nursing Interventions

1. Provide ice to apply to affected area in order to reduce swelling and inflammation
2. Pain medication administered by RN
3. Reposition using pillows to prevent skin break down and maximize comfort
4. Assist patient with passive range of motion exercises