N311 Care Plan # 3

Lakeview College of Nursing

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Demographics (5 points)

Date of Admission 10/27/2020	Patient Initials S.L.	Age 61	Gender Female
Race/Ethnicity White	Occupation Disabled	Marital Status Single	Allergies Tdap Vaccine
Code Status Full	Height 5'6"	Weight 573lb.	

Medical History (5 Points)

Past Medical History: Asthma, Diabetes, GERD, Hypercholesterolemia, HTN, Hypothyroidism, Restless Leg Syndrome, Shingles, Sleep Apnea, Neuropathy

Past Surgical History: Hysterectomy, Hernia repair, thyroidectomy, Cholecystectomy, tonsillectomy & adenoidectomy

Family History: None listed

Social History (tobacco/alcohol/drugs): None listed

Admission Assessment

Chief Complaint (2 points): Pain in Right Knee/Hip secondary to shortness of breath.

History of present Illness (10 points): Onset: On October 27, 2020, this 61-year-old white, single female was admitted to St. Anthony's Memorial Hospital for Right Hip and Knee Pain. Location: Right Hip and Knee. She has a history of Neuropathy and Restless Leg Syndrome. This could be an indicator of DDD and arthritis due to the amount of weight and the patient being classified as morbidly obese.

Primary Diagnosis

Primary Diagnosis on Admission (3 points):Impaired Physical Mobility

Secondary Diagnosis (if applicable):Related to Ineffective airway clearance

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

Osteoarthritis or OA as it is commonly referred to occurs in individuals who are over age 40. OA is common in persons who were previously athletes and it is not only the most common, but leading cause of chronic disability in the United States today. This disease does not discriminate between men and women. The risk factors of OA include **aging**, **obesity**, history in participation in team sports, trauma and overuse of joints and heavy occupational work. **Obesity has become a particularly common risk factor, as excess body weight places excess pressure on the knees and hips. In addition, static or dynamic malalignment of the pelvis, hip, knee, ankle, or foot can contribute to the development of osteoarthritic changes.** Muscle weakness, imbalance and inflexibility can also be risk factors because an individual's risk for injury increases with poor muscle health. Because the patient weighs 573 pounds, she is at a great risk of OA, and because she is inflexible, she could also be a risk factor for greater injury due to not being able to walk steady or move swiftly when walking. Etiology: **OA results from stresses applied to the joints, especially the weight-bearing joints, such as the ankle, knee, and hip**. (Capriotti). It is chronic, with degeneration occurring because of the breakdown of chondrocytes and adjacent subchondral bone. Pathophysiology: OA is a slowly progressive, degenerative, and inflammatory disease. Excessive pressure on a joint gradually wears away the cartilage surface and the subchondral bone is exposed. Inflammation occurs as cytokines, various inflammatory mediators, and metalloproteinases are released into the joint and degrade the cartilage. (Capriotti). **In the weight bearing joints, there is a greater loss of joint space because of the pressure the joints are enduring**. The pressure occurs until it exposes exposed bone on bone reaction which is what this patient is currently experiencing with her pain. Conservative treatments include both pain medications and occupational and physical therapy for the joints. If

those conventional treatments do not help, the result could lead to cortisone injections and even

joint replacement. (Mayo Clinic).

Because the patient is not moving around as much due to her pain and OA in her right hip and

knee, she is also having symptoms of diminished lung sounds bilaterally.   She also suffers from

Obstructive Sleep Apnea. This could be an indicator of pneumonia or a pleural effusion. A

pleural effusion is an abnormal collection of fluid within the pleural cavity that compresses lung

tissue and inhibits lung inflation. It is commonly edematous fluid that accumulates within the

pleural space because of heart failure, severe pulmonary infection, or neoplasm. The fluid may

be exudate or transudate, purulent, lymph, or sanguineous (bloody). (Capriotti). The

pathophysiology book estimates pleural effusions affect 1.5 million people per year. Etiology:

Transudates are filtrates of the blood that accumulate within the pleural space cause of an

imbalance in the capillary forces: hydrostatic and oncotic pressure. Elevated hydrostatic

pressure causes fluid to leak out of capillaries into the pleural space. In contrast, exudates are

mainly caused by pleural or lung inflammation or infection.

As the fluid further accumulates in volume, the lung base is pushed up as the diaphragm is

pushed down and inverted by the intervening fluid, creating the radiographic appearance of an

elevated diaphragm. Subpulmonic effusions are most often form in the setting of heart failure,

renal failure, and ascites. (Department of Radiology) In her case, she presented with SOB on

exertion and walking.

Pathophysiology: Normally the pleural space contains approximately 1mL of fluid used to

lubricate the visceral and parietal pleural membranes. The pleural cavity should be free of any

additional fluid or air. Pleural effusions result in an imbalance of hydrostatic and oncotic forces

in the lung tissue. When the hydrostatic pressure exceeds oncotic pressure, a pleural effusion is

formed. In her case, her CT showed a 1 cm irregular mass in sub pleural lobe which could be an

indicator of a pleural effusion. Because she also presented with shortness of breath upon arrival

and walking, this could be the reason for her shortness of breath because she is not moving like

she normally would be due to the pain in her right hip and knee. If left untreated, she could

develop pneumonia later.

Patients may be asymptomatic or may present with dull aching chest pain, **cough, and or**

dyspnea. Dullness to percussion and decreased or absent breath sounds may be present.

Additional clinical features may be present depending on the etiology or the pleural effusion.

(Department of Radiology).

Obstructive Sleep Apnea or OSA as it is commonly referred, is also called hypoventilation

syndrome. It is the intermittent cessation of airflow from the nose and mouth during sleep. It is

characterized by recurrent episodes of sleep apnea of 2 to 3 minutes in duration. During sleep

apnea, the airway repeatedly closes during sleep. Symptoms of OSA are loud snoring, choking,

or gasping for air during sleep, unrestful sleep, and daytime sleepiness. Basic factors such as

airway anatomy, **presence and distribution of body fat**, and muscle tone, contribute to the

severity of this disorder. Obesity is the most common risk factor. Diagnosis of OSA requires a

sleep study, and patients are clinically observed overnight in a sleep lab and have various body

functions measured. In her case, she was diagnosed with sleep apnea, but it is not known if she

is complainant with using her CPAP at night.

   After reading the reason the patient came to the hospital, and her symptoms, I read the doctor's

recommendations which were for the arthritis she should start with pain medication, Physical

therapy, cortisone injections and weight loss. If those did not work, he suggested her being

consulted by ortho for a consultation for a TKA.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis Company.

Department of Radiology. (2010, April 22-29). Retrieved October 31, 2020, from

https://vcuthoracicimagining.com/Historyanswer.aspx?qid=44&fid=1

Osteoarthritis – Diagnosis and treatment – Mayo Clinic. Retrieved October 31, 2020, from

https://www.mayoclinic.org/diseases-conditions/osteoarthritis/diagnosis-treatment/drc-20351930

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

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	5.56		Due to Pleural Effusion in Right Lobe.
Hgb	12.0-15.5	10.3		Due to Pleural Effusion in Right Lobe.
Hct	35-45	33.4		Decreased Oncotic Pressure from Pleural Effusion in Right Lobe.
Platelets	140-400	287		
WBC	4.0-9.0	10.1		Due to Pleural Effusion in Right Lobe.
Neutrophils		3.67		
Lymphocytes		1.29		
Monocytes		0.71		
Eosinophils		0.07		
Bands		0.24		

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-	135-145	137		
K+	<mark>3.5-5.1</mark>	<mark>6.1</mark>		Due to Pleural Effusion in Right Lobe.
Cl-	98-107	106		
CO2	22-29	22.7		
<mark>Glucose</mark>	<mark>70-99</mark>	<mark>112</mark>		Abnormal due to morbid obesity, too many carbs while eating. Patient is also diabetic.
BUN	6-20	8.3		
Creatinine	0.50-1.00	02.2		
Albumin	3.5-5.2	Unable to obtain		
Calcium	8.4-10.5	*		
Mag	1.6-2.6	*		
Phosphate		*		
Bilirubin	0.0-1.2	*		
Alk Phos	35-105	*		

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		Unable to Obtain	Unable to Obtain	
pH		*	*	

		*	*	
Specific Gravity		*	*	
Glucose		*	*	
Protein		*	*	
Ketones		*	*	
WBC		*	*	
RBC		*	*	
Leukoesterase				

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		**Unable to Obtain**	**Unable to Obtain**	
Blood Culture		*	*	
Sputum Culture		*	*	
Stool Culture		*	*	

Lab Correlations Reference (APA):

Pagana, K., Pagana, T., & Pagana, T. *Mosby's diagnostic and laboratory test reference*.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

CT of Chest/Abdomen:

   1. **Exam limited POPE – (post obstructive pulmonary edema)**

2. **Consolidative 3.1 cm irregular mass in sub pleural Right Lobe etiology suggests chest – stable heart size, no pulmonary effusion present.**

3. **Atherosclerosis Coronary**

US/ Venous Doppler:

1. **No DVT present in either extremity bilaterally.**

XR Back:

1. **Suggests DDD secondary to scoliosis**

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

Medications (5 required)

Brand/ Generic	Humalog	Lovenox	Zofran	Tylenol	Norco
Dose	**0-12 units**	**0.6mL =60 mg of 60mg/0.6mL**	**2mL =4mg of 4mg/2mL**	**325mg**	**5-325mg**
Frequency	**4 times daily before meals**	**Q24h**	**Q6H / PRN**	**Q4H / PRN**	**Q4H/PRN**

	and nightly				
Route	**Subcu**	**SubCu**	**IV**	**Oral**	**Oral**
Classification	**Human insulin**	**Low-molecular weight heparin**	**Selective serotonin**	**Nonsalicylate, paraminophenaol derivative**	**Opioid**
Mechanism of Action	**Lowers blood glucose levels by stimulating peripheral glucose uptake by fat and skeletal muscle, and by inhibiting hepatic glucose production.**	**Potentiates the action of antithrombin III, a coagulation inhibitor. By binding with antithrombin III, enoxaparin rapidly binds with the inactive clotting factors.**	**Blocks serotonin receptors centrally in the chemoreceptor trigger zone and peripherally at vagal nerve terminals in the intestine.**	**Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.**	**Binds to and activates opioid receptor at sites in the periaqueductal and periventricular gray matter, the ventromedial medulla, and the spinal cord to produce pain relief.**
Reason Client Taking	**DM**	**Prevent Blood Clots**	**Nausea**	**Pain**	**Pain**
Contraindications (2)	**COPD, Asthma**	**Active major bleeding, history of heparin-induced thrombocytopenia**	**Concomitant use of apomorphine, congenital long QT syndrome**	**Hypersensitivity to acetaminophen or its components, severe hepatic impairment**	**Severe bronchial asthma, suspected paralytic ileus**
Side Effects/Adverse Reactions (2)	**ACE inhibitors, angiotensin II receptor blocking**	**Confusion, CHF**	**Agitation, hypotension**	**Agitation, Hypotension**	**Fatigue, Peripheral edema**

	agents				

Medications Reference (APA):

Jones & Bartlett Learning. (2020). *2020 Nurses drug handbook*. **Burlington, MA.**

Assessment

Physical Exam (18 points)

GENERAL:	
Alertness:	Alert and oriented x3
Orientation:	No distress.
Distress:	Well-groomed and appropriately dressed, well
Overall appearance:	nourished
INTEGUMENTARY:	
Skin color:	Ruddy
Character:	Pink/ Dry/Normal
Temperature:	Warm
Turgor:	Normal turgor 2+
Rashes:	None
Bruises:	None
Wounds: .	None
Braden Score:	Could not find Braden score to document.
Drains present: Y☐ N ☒	
** Type:**	
HEENT:	
Head/Neck:	Head and neck symmetrical, normal cephalic
Ears:	Patient's ears are free of discharge, difficulty
Eyes:	hearing: States he is hard of hearing after an MRI
Nose:	test
Teeth:	Eyes symmetrical EOM, nose symmetry, no
	deviation, does have top dentures which are well

	groomed. Teeth on bottom are 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 normal S1 and S2, no murmurs, no gallops or rubs detected in S3 and S4. Capillary refill is less than 3 seconds. Peripheral pulses 1+ symmetric. No neck vein distention. Edema +2 bilateral Extremities.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Respirations are diminished.

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/regular
	
	5'6"
	573lb.
	Bowel sounds are normoactive in all 4
	quadrants
	Unable to obtain
	No CVA tenderness

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:**	**Unable to obtain**

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** ☐	Normal ROM Strength in both upper and lower extremities 2-Wheel walker, gait belt, rolling walker Strength in both arms, legs weak Needs assistance with all ADL's, shoes, dressing High Unable to obtain fall score Y – transfer with 1 person with gait belt / walker – stand pivot
NEUROLOGICAL: **MAEW:** Y☐ N☒ **PERLA:** Y☒ N☐ **Strength Equal:** Y☐ N☒ if no - **Legs** ☐ **Arms** ☒ **Both** ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Weak legs, Arms strong Cognitive of space, time and location Articulative speech, fluent Alert No gross focal neurological deficits
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):**	Friends, Daughter Mature Unable to Obtain Patient is a single woman who lives independently. Has help from daughter.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
9:00am	**76 BPM**	**113/63** **mmHg**	**16**	**97.9 degrees** **F.**	**98% on RA**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
360mL	500mL

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 Physical Mobility**	**Inability to move purposefully within the physical environment, including bed mobility, transfers, and ambulation. Limited ROM, Inability to perform action as**	**1.Place patient in high fall risk category. Place yellow bracelet on patient, fall mats, bed alarm on.** **2.Administer pain meds around the clock due to the pain she is having**	**1.Goal met. Patient placed as a high fall risk category. Fall mats placed, yellow bracelet on, bed alarm on.** 2. **Goal met. Pain meds administered around the clock for relief of pain**

	instructed.	in her right hip/knee	in right hip and knee.
3. **Related to ineffective airway clearance r/t OSA**	**The inability to clear secretions or obstructions from the respiratory tract to maintain a clear airway. Which, increased production of secretions causes shortness of breath, crackles, and difficulty breathing patterns**	**1. Order CT of Chest/Abdomen to see if she is having any sxs of pna or other indicators for SOB.** **2. Place patient in high fowler's position during work up to make it easier for her to breathe.**	1. **Goal Met. CT Complete. Exam limited POPE – (post obstructive pulmonary edema) Consolidative 3.1 cm irregular mass in sub pleural Right Lobe etiology suggests chest – stable heart size, no pulmonary effusion present.** 2. **Goal Met. Patient placed in high flower's position during hospital work up in ED.**

Other References (APA):

Concept Map (20 Points):

Subjective Data

"I'm having pain in my Right Hip and Knee. I also am experiencing shortness of breath when I walk"

Nursing Diagnosis/Outcomes

Impaired Physical Mobility - 1. Goal met. Patient placed as a high fall risk category. Fall mats placed, yellow bracelet on, bed alarm on.
Goal met. Pain meds administered around the clock for relief of pain in right hip and knee.

Related to ineffective airway clearance r/t OSA - Goal Met. CT Complete. Exam limited POPE – (post obstructive pulmonary edema)
Consolidative 3.1 cm irregular mass in sub pleural Right Lobe etiology suggests chest – stable heart size, no pulmonary effusion present.
Goal Met. Patient placed in high flower's position during hospital work up in ED

place patient in high fall risk category. Place yellow bracelet on patient, fall mats, bed alarm on.

Objective Data

Patient moving slow when walking. Appears to be in pain with movement. Shortness of breath while walking.

VS: BP: 113/63 mmHG
    P: 76 BPM
    T: 97.9F
    R: 16
    O2: 98% on RA

Patient Information

Patient is a White Female, age 61. She is disabled and lives independently at home. Does have help from her daughter. She is 5'6" and 573lb. She is classified as morbidly obese and has many comorbidities. She has presented with pain in her R. Hip/Knee and SOB upon arrival

Nursing Interventions

2.Administer pain meds around the clock due to the pain she is having in her right hip/knee

Order CT of Chest/Abdomen to see if she is having sxs of pna or other indicators for SOB.

Place patient in high fowler's position during work to make it easier for her to breathe.