N311 Care Plan #4

Lakeview College of Nursing

Anthony Morgan

Demographics (5 points)

Date of Admission **3/9/21**	**Patient Initials** **JJ**	**Age** **79**	**Gender** **Female**
Race/Ethnicity **White**	**Occupation** **Insurance Agent, retired in 1998**	**Marital Status** **Widow since December 4th**	**Allergies** **None**
Code Status **Full code**	**Height** **62in.**	**Weight** **172.6lbs**	

Medical History (5 Points)

Past Medical History:Acute renal failure, chronic kidney disease (stage IV), hypertension, multiple myeloma, hyperlipidemia, diabetes, osteoporosis, osteoarthritis, recurrent UTIs, heart disease with preserved ejection fraction, congestive heart failure, acute kidney injury, and atherosclerotic heart disease.

Past Surgical History: Hip surgery (1992), right ankle surgery, 5-7 teeth removed, cholecystectomy, Egd colonoscopy, laparoscopic hysterectomy

Family History:

- **Grandparents**
  - **Maternal grandmother had heart disease**
  - **Paternal grandmother had arthritis**
- **Parents**
  - **Both had heart disease**
- **Siblings**
  - **Brother has heart disease**
  - **One sister had heart disease**

  - **Another sister had esophageal cancer and gastroesophageal reflux disease without esophagitis**

Social History (tobacco/alcohol/drugs):

- **Never smoked, drank alcohol, nor taken any drugs**

Admission Assessment

Chief Complaint (2 points): Hip pain

History of present Illness (10 points): The patient experienced right hip pain during the first week of March. The pain became more unbearable the more they walked. This eventually led to her falling and breaking the right hip. The patient was taken to OSF hospital where their hip was repaired. From March 9, 2021 and onward, the patient experienced stiffness and soreness of the right hip when walking. Staying in bed seemed to be the only relieving factor after the surgery. The patient is also taking physical therapy under a physical therapist to maintain and improve motility.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Broken right hip

Secondary Diagnosis (if applicable):

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

This patient's hip pain is likely due to multiple problems. The patient was diagnosed with osteoporosis and osteoarthritis. An x ray also revealed that there was already an old healed fracture of the inferior ramus of the pubis and the fall created a fracture in the neck of the right femur. These fractures are exacerbated by osteoporosis (OP) and osteoarthritis (OA). Osteoarthritis is destruction of cartilage that surrounds the outside of bones at joints. "In

OA, chondrocytes within the joint fail to synthesize good-quality matrix in terms of both resistance and elasticity; this makes the cartilage more prone to deterioration" (Wright et al., 2019, p. 518). Without cartilage, bones would grind against one another and quickly damage each other. The joint at the pelvis and femur could have little cartilage protecting them which would undoubtedly add to the hip pain. Tests for OA include blood tests that rule out the possibility of rheumatoid arthritis or septic arthritis (Wright et al., 2019). The Rheumatoid factor, erythrocyte sedimentation rate, and c-reactive protein are blood test that help differentiate between arthritis diseases. A CBC is collected on patients with arthritis because non-steroidal anti-inflammatory drugs can alter blood cell counts (Wright et al., 2019). Other tests include xrays and an MRI. OA is followed by acute and chronic pain. Treatment includes therapy and pain management (Wright et al., 2019).

Osteoporosis is a bone disease characterized by a porous bone structure. The interior of bones are suppose to appear nearly solid. The porous structure can occur due to the abduction of calcium and lack of weight-bearing exercises over a lifetime. Weight bearing exercises are important because it simulates osteoblasts to build more firm bone. The more weight bearing exercises someone does, the more osteoblasts will build. Another cell called osteoclasts breakdown bone. When we're young, the osteoblasts tend to build more bone. When we're older, osteoclasts destroy more bone than the osteoblasts can build. This process repeats without opposition making it more likely for a patient to have osteoporosis. Signs and symptoms include fractures and pain. Diagnostic tests include bone mineral density tests, bone biopsy, and x-ray (Wright et al., 2019). Lab tests cannot definitively diagnose osteoporosis, but they can give a strong indication. Some lab tests would include vitamin D, calcium, parathyroid, and thyroid tests. Treatment includes

adequate intake of vitamin D, calcium, and weight-bearing exercises. These factors together will increase bone mineral density.

Pathophysiology References (2) (APA):

nof.org. (2021). Bone Density Exam/Testing. https://www.nof.org/patients/diagnosis-information/bone-density-examtesting/

Wright, J. D. (2019). All-in-One Nursing Care Planning Resource Medical-Surgical, Pediatric, Maternity, and Psychiatric-Mental Health (P. Swearingen, Ed.). Julie Eddy Publishing.

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	**3.92 – 5.13**	**2.74**		**A possible side effect of the lisinopril medication is hemolytic anemia; erythrocytes are dying faster than the body can replenish them. Erythropoietin is a hormone secreted by the kidneys that increases erythrocyte production. The patient has chronic kidney failure which possibly prevent erythropoietin from being produced.**
Hgb	**11.6 – 15.0**	**8.4**		**Hemoglobin is a component of erythrocytes. If erythrocyte production is low then hemoglobin will also be low.**
Hct	**35.5 – 44.9**	**26.5**		**The patient has a decreased number**

				of erythrocytes, platelets, and leukocytes. This is being reflected in the hematocrit count.
Platelets	**157 - 371**	**131**		**A side effect of lasix is thrombocytopenia which is a decreased number of platelets.**
WBC	**3.4 – 9.6**	**2.7**		**Lasix also induces leukocytosis.**
Neutrophils	**1.56 – 6.45**	**1.5**		**Lisinopril induces neutropenia.**
Lymphocytes	**0.95 – 3.07**	**1.0**		
Monocytes	**0.26 – 0.81**	**0.2**		**Lisinopril can cause agranulocytosis; monocytes are a type of granulocyte. Lasix makes the problem worse as it can cause leukocytosis.**
Eosinophils	**0.03 – 0.48**	**0.0**		**The low number of eosinophils is possible to due to the Lasix medication which can cause leukocytosis.**
Bands	**0 – 5%**	**0.0**		

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**	**134**		**The patient is taking Lasix medication which prevents sodium from being absorbed from the loop of Henle and back into circulation.**
K+	**3.7 – 5.2**	**6.0**		**The patient's sodium is low causing the body to secrete aldosterone to retain sodium. Aldosterone is an antagonist to potassium (Jones & Bartlett, 2020).**
Cl-	**96 - 106**	**106**		
CO2	**23 - 29**	**16**		**Low CO2 levels can be a complication of type 2 diabetes.**
Glucose	**70 - 110**	**359**		**The patient has type 2 diabetes. In**

				type 2 diabetes the body has a difficult time "recognizing" insulin. Insulin is responsible for letting glucose into cells. As a result, glucose levels increase to dangerous levels in the blood. The patient is taking simvastatin which can induce hyperglycemia.
BUN	**6 - 20**	**36**		**BUN is a waste product that can't be filtered when the glomerular filtration rate (GFR) is too low. The normal range for GFR is 90 – 120. The patient's current rate is 28.**
Creatinine	**0.6 – 1.3**	**1.8**		**Low glomerular filtration rate can result in an elevated creatinine. The patient is also taking medications that increase creatinine (simvastatin and acyclovir).**
Albumin	**3.4 – 5.4**	**3.1**		**Low albumin is characteristic of chronic kidney disease (NCBI, 2020).**
Calcium	**8.5 – 10.2**	**8.9**		
Mag	**1.7 – 2.2**	**N/A**		
Phosphate	**2.5 – 4.5**	**N/A**		
Bilirubin	**0.1 – 1.2**	**0.4**		
Alk Phos	**20 – 130U/ L**	**90**		
eGFR	**90 - 120**	**28**		**The patient has chronic kidney disease. This damages the kidneys causing the nephrons to not filter blood properly leading to a decreased rate.**

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	**Clear - Yellow**	**N/A**	**N/A**	
pH	**5.00 – 9.00**	**N/A**	**N/A**	
Specific Gravity	**1.003 – 1.030**	**N/A**	**N/A**	
Glucose	**Negative**	**N/A**	**N/A**	
Protein	**Negative**	**N/A**	**N/A**	
Ketones	**Negative**	**N/A**	**N/A**	
WBC	**0 - 5**	**N/A**	**N/A**	
RBC	**0 - 4**	**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	**No Growth**	**N/A**	**N/A**	
Blood Culture	**No Growth**	**N/A**	**N/A**	
Sputum Culture	**No Growth**	**N/A**	**N/A**	
Stool Culture	**No Growth**	**N/A**	**N/A**	

Lab Correlations Reference (APA):

eClinpath. (2020). RBC Count. https://eclinpath.com/hematology/tests/rbc-count/#:~:text=RBC%20counts%20are%20expressed%20as,SI%20units%20is%201%3A1.count/#:~:text=RBC%20counts%20are%20expressed%20as,SI%20units%20is%201%3A1.

Healthline. (2019). Serum Phosphorus Test. https://www.healthline.com/health/serum-phosphorus

Jones & Bartlett Learning. (2020). Nurse's Drug Handbook. Composition and Project Management: S4Carlisle Publishing Services.

Mayo Clinic. (2021). Complete Blood Count (CBC). https://www.mayoclinic.org/tests-procedures/complete-blood-count/about/pac-20384919

Mayo Clinic. (2021). Complete Blood Count (CBC) With Differential, Blood. https://www.mayocliniclabs.com/test-catalog/Clinical+and+Interpretive/9109

Medline Plus. (2021). Glomerular Filtration Rate. https://medlineplus.gov/ency/article/007305.htm#:~:text=According%20to%20the%20National%20Kidney,vary%20slightly%20among%20different%20laboratories.

Medline Plus. (2021). Magnesium Blood Test. https://medlineplus.gov/ency/article/003487.htm#:~:text=The%20normal%20range%20for%20blood,measurements%20or%20test%20different%20samples.

National Cancer Institute. (n.d.). Normal Blood Values. https://training.seer.cancer.gov/abstracting/procedures/clinical/hematologic/blood.html

NCBI. (2020). Hypoalbuminemia. https://www.ncbi.nlm.nih.gov/books/NBK526080/Science Direct. (2021). https://www.ncbi.nlm.nih.gov/books/NBK526080/sciences/spironolactone#:~:text=Spironolactone%20and%20eplerenone%20competitively%20antagonize,excretion%20and%20decrease%20potassium%20loss

UCLA Health. (2021). High Calcium. https://www.uclahealth.org/endocrine-center/high-calcium

UCSF Health. (2021). Comprehensive Metabolic Panel. https://www.ucsfhealth.org/medical-tests/003468

UNC Medical Center. (2021). Urinalysis (General & Microscopic). https://www.uncmedicalcenter.org/mclendon-clinical-laboratories/available-tests/urinalysis-general-microscopic/

UR Medical Center. (2021). Total Carbon Dioxide (Blood). https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=167&contentid=carbon_dioxide_blood#:~:text=Lower%20levels%20of%20carbon%20dioxide,1%20and%20type%202%20diabetes.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Xrays of the right leg

- **Neck of the femur has a subcapital fracture**
- **Osteoarthritis of the right knee joint**
- **The inferior ramus of the pubis has a healed fracture**

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

Medications (5 required)

Brand/ Generic	**Brand:Lasix Generic: Furosemide**	**Brand: Prinivil Generic: Lisinopril**	**Brand: Zocor Generic: Simvastatin**	**Brand: Sitavig Generic: Acyclovir**	**Brand: Zofran Generic: Ondansetron HCl**
Dose	**40mg**	**2.5mg**	**20mg**	**400mg**	**4mg**
Frequency	**Once/day**	**Once/day**	**Once/day**	**2x/day**	**Every 8hrs.**
Route	**Oral**	**Oral**	**Oral**	**Oral**	**Oral**
Classification	**Diuretics**	**Antihypertensives**	**Antihyperlipidemics**	**Antivirals, dermatologicals**	**Antiemetics**
Mechanism of Action	**Prevents sodium and water from being absorbed from the loop of Henle of the nephrons in kidneys.**	**Reduces blood pressure by inhibiting the conversion of angiotensin I to angiotensin II.**	**Prevents the hepatic enzyme hydroxymethyl glutaryl-coenzyme A reductase from creating a cholesterol precursor. This stops cholesterol synthesis.**	**Prevents DNA polymerase from creating new strands thus preventing viral replication.**	**Inhibits peristalsis neurotransmitter of parasympathetic neurons in the GI tract.**
Reason Client Taking	**Congestive Heart Failure**	**Diabetes Mellitus Type II**	**Hypercholesterolemia**	**Multiple Myeloma**	**Nausea & Vomiting**

Contraindications (2)	**Having a systolic pressure over 120 and anuria**	**Patients with diabetes Patients with renal failure**	**Active hepatic disease and cyclosporine**	**Hypersensitivity to acyclovir or valacyclovir.**	**Receiving apomorphine or a hypersensitivity to ondansetron HCl**
Side Effects/Adverse Reactions (2)	**Thrombocytopenia and leukocytopenia**	**Neutropenia, agranulocytosis, and hemolytic anemia**	**Hyperglycemia and elevated creatinine serum level**	**Hyperbilirubinemia and and elevated creatinine**	**Dyspnea and seizures**

Medications Reference (APA):

Drugs.com. (2021). Ondansetron. https://www.drugs.com/pro/ondansetron.html#:~:text=Contraindications,tablets%20are%20contraindicated%20in%20patients%3A&text=known%20to%20have%20hypersensitivity%20(e.g.,see%20Adverse%20Reactions%20(6.2)%5D&text=receiving%20concomitant%20apomorphine%20due%20to,hypotension%20and%20loss%20of%20consciousness

Jones & Bartlett Learning. (2020). Nurse’s Drug Handbook. Composition and Project Management: S4Carlisle Publishing Services.

MedlinePlus. (2019). Ondansetron. https://medlineplus.gov/druginfo/meds/a601209.html

Assessment

Physical Exam (18 points)

GENERAL: ANOx4 **Alertness:** Excellent **Orientation:** Oriented x1 **Distress:** None **Overall appearance:** Good	
INTEGUMENTARY: **Skin color:** Normal for their complexion **Character:** Normal **Temperature:** Warm **Turgor:** Immediate recoil **Rashes:** None **Bruises:** Seldom **Wounds:** None **Braden Score:** 20 - low risk **Drains present: Y☐ N ☒** **Type:**	The few bruises and petechiae are due to recent IV and small needle sticks that created blown veins.
HEENT: **Head/Neck:** Symmetrical and normal **Ears:** Satisfactory **Eyes:** PERRLA, satisfactory sight **Nose:** Normal **Teeth:** Poor	**Head/Neck:** No lymphadenomegaly, sinusitis, tracheal deviation, nor thyromegaly. Anatomical symmetry present. **Ears:** Bilateral symmetry and both ears lacked lesions, scarring, and otorrhea. Bilateral pearly-grey tympanic membranes with moderate hearing. Patient cannot respond to Rinne test. Vibration of tunning fork heard in both ears during Weber test. **Eyes:** PERRLA and bilateral symmetry of eyes and lids. No lesions nor scarring of the sclera, conjunctiva, lids, and no excessive discharge from the eye. Rosenbaum test: • Both eyes together have 20/160 vision. • Right eye has 20/160 vision. • Left eye has 20/250 vision. **Nose:** Normal septum, no polyps, and turbinates are pink and not swollen. **Mouth:** Tonsils are +1, midline uvula, pink and moist mucosa, 5-7 teeth are missing, upper-back-left molar covered in cavities, and a pink and moist posterior pharynx. .
CARDIOVASCULAR: **Heart sounds:** Normal **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** Normal **Peripheral Pulses:** 2+	**Cardiac rhythm:** Normal rhythm, no murmurs, S3, S4, nor gallops. Aortic, pulmonic, tricuspid, and mitral valves sound normal. **Peripheral Pulses:** Bilateral 2+ radial and carotid pulses.

Capillary refill: Less than 3 seconds **Neck Vein Distention: Y** ☐ **N** ☒ **Edema Y** ☐ **N** ☒ **Location of Edema:**	
RESPIRATORY: Normal **Accessory muscle use: Y**☐ **N** ☒ **Breath Sounds: Location, character**	Normal lung sounds in the 4 anterior, 6 posterior, and 1 right lateral, 1 left lateral locations, no wheezes nor crackles.
GASTROINTESTINAL: **Diet at home:** Routine breakfast with a balanced and varied lunch and dinner. **Current Diet:** Low salt **Height:** 62in **Weight:** 172.6lbs **Auscultation Bowel sounds:** All four quadrants checked **Last BM:** Two times this morning **Palpation: Pain, Mass etc.:** None **Inspection:** Normal **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y** ☐ **N** ☒ **Nasogastric: Y** ☐ **N** ☒ **Size:** **Feeding tubes/PEG tube Y** ☐ **N** ☒ **Type:**	**Diet at home:** Breakfast includes coffee, oatmeal, French toast, milk, apple or orange juice. **Auscultation Bowel sounds:** • Upper right quadrant – 8/min • Upper left quadrant – 12/min • Lower left quadrant – 14/min • Lower right quadrant – 18/min
GENITOURINARY: **Color:** Light yellow **Character:** Consistent light yellow **Quantity of urine:** Micturition x 2 **Pain with urination: Y** ☐ **N** ☒ **Dialysis: Y** ☐ **N** ☒ **Inspection of genitals:** **Catheter: Y** ☐ **N** ☒ **Type:** **Size:**	**Quantity of urine:** • Much micturition after waking up • Little micturition late morning
MUSCULOSKELETAL: **Neurovascular status:** Excellent **ROM:** Excellent **Supportive devices:** Walker and a wheelchair	**Strength:** The patient has a strong grip. They were able to push my arms away with their legs despite applying pressure and their right hip pain. **ADL Assistance:** The patient overall executes activities of daily living on their own. They only

Strength: **ADL Assistance: Y☒ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score:** 65 **Activity/Mobility Status:** High fall risk **Independent (up ad lib)** ☒ **Needs assistance with equipment** ☒ **Needs support to stand and walk**☐	need to be pushed in their wheelchair when traveling further than their room. The patient often operates independently despite being told to wait for assistance.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒** **Orientation:** Excellent **Mental Status:** Excellent **Speech:** Excellent **Sensory:** Fair **LOC:** None	.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** Calise's chocolate-covered cherries **Developmental level:** Excellent **Religion & what it means to pt.:** Christian **Personal/Family Data (Think about home environment, family structure, and available family support):**	The patient is Christian of the Protestant denomination. They hope to get into Heaven. Her son visits moderately; however, this is dependent on the COVID rules at the time of visit.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
6:41	**60**	**146/57**	**12**	**96.8˚F**	**98%**

Pain Assessment, 1 set (5 points)

Motility	Time	Scale	Location	Severity	Characteristics	Interventions
Not moving	**6:41**	**0 - 10**	**N/A**	**0**	**N/A**	**N/A**
Walking	**6:41**	**0-10**	**Right hip**	**5 - 6**	**Dull and sharp pain**	**Walker and wheelchair**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
120mL of coffee **240mL of water** **240mL of apple juice**	**Micturition x 2**

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 walking related to right hip pain as evidence by right knee pain during walking and osteoarthritis of the right knee	**Osteoarthritis is a condition where the cartilage around the joint of two bones is degraded overtime (Wright, 2019). This structure normally protects the ends of bones but without it, bones grind against each other creating severe pain. The knees are also a**	**Pushed her in a wheelchair if traveling further than their room.** **Provided education on why it's important to wait for assistance to travel to prevent another fall.**	**The patient agreed to activate the call light if they wanted to move out of the room.**

	weightbearing joint which increases the amount of force the femur and essentially the weight of the rest of the body would place on the tibia. This increased force can increase pain to the point where it's difficult to walk without pain. They were diagnosed with osteoporosis which makes the structure of bones more porous and prone to breaking. This more porous structure can cause pain just from standing. The hip pain is due to a fracture of the upper femur. Having to put body weight on a fracture is painful and can make walking impossible.		
2. Unstable blood glucose level related to family history of diabetes as evidence by 359ug/dL blood sugar.	**The range of glucose is 70ug/dL to 110ug/dL. The last glucose reading was 359ug/dL which is abnormally high. This patient also has diabetes. Diabetics can have abnormal serum glucose because**	**Limited sugar and high glycemic carbohydrates during meals** **Took a blood sugar sample.**	**The patient enjoyed their breakfast and lunch despite the less glycemic food choices.**

	insulin can't be recognized by cells or can't be produced. Either problem with insulin makes glucose remain in the bloodstream longer than it should and in large quantities.		

Other References (APA):

UCSF Health. (2021). Comprehensive Metabolic Panel. https://www.ucsfhealth.org/medical-tests/003468

Wright, J. D. (2019). All-in-One Nursing Care Planning Resource Medical-Surgical, Pediatric, Maternity, and Psychiatric-Mental Health (P. Swearingen, Ed.). Julie Eddy Publishing.

Concept Map (20 Points):

Subjective Data

No pain while sitting
Pain at a 5-6 when walking and standing
Does not drink, smoke, nor take drugs
Left ear is the bad ear
Micturition twice this morning
Urine light yellow

Nursing Diagnosis/Outcomes

Diagnosis 1: Impaired walking related to right hip pain as evidence by right knee pain during walking and osteoarthritis of the right knee.
Outcome: Client will call for help when they desire to move.

Diagnosis 2: Unstable blood glucose level related to family history of diabetes as evidence by 359 blood sugar.
Outcome: The client will restrict their diet from sugar and other carbohydrates that have a high glycemic index.

Objective Data

Pulse: 60
Blood Pressure: 146/57
Respiratory Rate: 12
Temperature: 96.8˚F
Oxygen Saturation: 98%
Diabetes
Hyperlipidemia
Multiple Myeloma
Osteoarthritis
Osteoporosis
Chronic Kidney Failure
Hypertension

Patient Information

Initials: JJ
Age:79
Gender: Female
Ethnicity: White
Height: 62in.
Weight: 172.6lbs
Code Status: Full code
Date of admission: 3/9/21

Religion:

Nursing Interventions

Took a blood sugar
Delivered food with little sugar and high glycemic index
Administered lisinopril
Used a wheelchair to help the patient move further than their room
Provided education on the importance of waiting for assistance to prevent falls