N311 Care Plan 3

Anisha Coleman

Lakeview College of Nursing

N311: Foundations of Professional Practice

Professor Linda Scribner

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Demographics (5 points)

Date of Admission **10/14**	Client Initials **JB**	Age **73**	Gender **F**
Race/Ethnicity **White/non-Hispanic**	Occupation **Not employed**	Marital Status **Widow**	Allergies **(4)**
Code Status **Full**	Height **4'11 (149.9cm)**	Weight **162lb 0.6oz (73.5kg)**	

Allergies:

Definity – body ache, back pain
Latex – rash
NSAIDS – CKD stage 3
Norvasc – BLE swelling, rash

Medical History (5 Points)

Past Medical History: chronic lymphocytic leukemia, GERD, hyperlipidemia, hypothyroidism, asthma, anemia, hypertension, obesity

Past Surgical History: total knee replacement: R (3/14/2017), L (5/2009)

Family History:

- Father: diabetes, cancer (nonspecific), hypertension, arthritis, glaucoma
- Mother: hypertension, cancer (nonspecific), arthritis, macular degeneration
- Maternal Grandfather: heart
- Maternal Grandmother: arthritis, breast cancer
- Paternal Grandfather: heart
- Paternal Grandmother: cancer (nonspecific)

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

- never smoked, never drank alcohol, have some exposure to secondhand smoke from husband

Admission Assessment

Chief Complaint (2 points): Fall

History of Present Illness – OLD CARTS (10 points):

- Mrs. JB fell outside on her deck October 14th rearranging things. She tripped over the water hose and fell on her R side. Her neighbor happened to see her lying on the backyard deck and called 911. She went to the hospital with leg bruises, difficulty lifting her leg and a broken L finger. She described her pain as sharp and tight. She's currently taking fentanyl to relieve the pain.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Acute Fracture of R Femur

Secondary Diagnosis (if applicable): n/a

Pathophysiology

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

A fracture is defined as a broken bone (Cleveland Clinic, 2022). Fractures are diagnosed by their shape and pattern of the break, its cause, and its location (Cleveland Clinic, 2022). The femur is your thigh bone. It is the longest, heaviest and strongest bone in the human body which requires a tremendous about of force to break (Cleveland Clinic, 2022). A broken femur is a major injury that requires immediate medical attention: surgery (Cleveland Clinic, 2022) Femur fractures are fixed within 24-48 hours of injury, sometimes longer if there are other life-threatening injuries or unstable medical conditions (Gage & Lowe, 2024). Internal fixation surgery is when the surgeon realigns or sets your bones in position with a piece of metal through rods, plates, screws, pins or wires (Cleveland Clinic, 2022). External fixation is when the surgeon will put screws on either side of the fractured femur and connecting it to a brace from the outside of your body to stabilize the fracture giving it time to heal (Cleveland Clinic, 2022). One might also need a joint replacement, also known as arthroplasty, and or a bone graft. Most causes of a broken femur are car crashes, falls and/or gunshots (Cleveland Clinic, 2022). Another name for this type of broken bone is femoral shaft fracture, which runs from below the hip to where the bone begins to widen at the knee (Gage & Lowe, 2024). An x-ray and computed tomography (CT) scan are used to examine and diagnose the broken thigh bone (Cleveland Clinic, 2022). X-ray imaging shows whether the bone is intact or broken, the type of fracture, and the location of the femur (Gage & Lowe, 2024), while a CT scan shows a cross-section of your limb showing the severity of the fracture, helping to see the lines more clearly than what an X-ray can (Gage & Lowe, 2024). Other tests that may be ran is a bone scan when X-rays aren’t effective in providing enough information and a magnetic resonance imaging (MRI), which

provide a complete picture of damages and cartilage and ligaments around the bone (Cleveland Clinic, 2022). Elder adults are more at risk of low-forced incidents from a fall (Cleveland Clinic, 2022) while young people with this injury have high-energy collisions like motor vehicle accidents/crashes (Gage & Lowe, 2024). Older female patients are more likely to have osteoporosis which puts them at risk of fractures secondary to a ground-level fall (Chang et al., 2023). Medications like acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), and muscle relaxers are used to manage pain (Gage & Lowe, 2024).

The main function of the femur is weight bearing and gait stability (Chang et al., 20230. The femur is composed of a specialized metaphyseal region consisting of the head, neck, and greater and lesser trochanters (Denisiuk & Afsari, 2023). The greater and lesser trochanter attaches to muscles that move the hip and knee (Chang et al, 2023). The femoral artery is the main blood supply to the lower extremity and divides into two branches, deep and superficial, arteries at the level of the lesser trochanter (Chang et al., 2023). The deep femoral artery supplies the shaft of the femur (Chang et al., 2023). A statewide database revealed an incidence of 1.33 fractures per 10,000 people while the number of shaft fractures in the elderly is increasing secondary to the growing number of geriatric patients in the general population (Eastwood & Jaffe, 2023).

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 *uL*	3.5-5.2	4.24	**2.97↓**	Decreased bone production (leukemia) increases blood loss(bleeding), increased RBC destruction (hemolysis) (Pagana, 2021)
Hgb *g/dL*	11.0-16.0	13.0	**9.2↓**	Anemia, chronic hemorrhage, lymphoma, neoplasia (Pagana, 2021)
Hct *%*	34-47	40.1	**28.4↓**	Anemia, cirrhosis, leukemia, renal disease (Pagana, 2021)
Platelets *10^3uL*	140-400	267	257	
WBC *10^3uL*	4.0-11.0	**21.71↑**	**25.75↑**	Infection, inflammation, stress, trauma, tissue necrosis (Pagana, 2021)
Neutrophils *10^3uL*	1.60-7.70	**8.96↑**	**13.14↑**	Cushing Syndrome, inflammatory disorder: rheumatic fever and arthritis, leukemia (Pagana, 2021)
Lymphocytes *10^3uL*	1.0-4.90	**9.00↑**	**6.88↑**	Chronic bacteria infection, infectious hepatitis, leukemia, multiple myeloma (Pagana, 2021)
Monocytes *10^3uL*	0.0-1.10	**2.98↑**	**5.31↑**	Chronic inflammatory disorder, ulcerative colitis, viral infection (Pagana, 2021)
Eosinophils *10^3uL*	0.0-0.50	**0.55↑**	0.04	
Bands				

Lab values: (Epic, Carle Foundation Hospital, 2024)

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- *m mol/L*	136-145	138	**133↓**	Hyponatremia, decreased sodium intake, increased sodium loss: renal insufficiency, third-space losses of

				sodium: peripheral edema (Pagana, 2021)
K+ *m mol/L*	3.5-5.1	4.2	4.5	
Cl- *m mol/L*	98-107	104	101	
CO2 *m mol/L*	22.0-29.0	25.0	26.0	
Glucose *mg/dL*	74-100	95	**123↑**	Hyperglycemia, acute pancreatitis, stress response, chronic renal failure (Pagana, 2021)
BUN *mg/dL*	10-20	28	**34↑**	Prerenal causes: dehydration, sepsis Renal causes: glomerulonephritis, renal failure Postrenal causes: ureteral obstruction (Pagana, 2021)
Creatinine *mg/dL*	0.55-1.02	1.36	**1.39↑**	Glomerulonephritis, nephritis Reduced blood flow: dehydration, congestive heart failure (Pagana, 2021)
Albumin *g/dL*	3.4-4.8	3.8	**2.7↓**	Renal failure risk of aluminum toxicity (Pagana, 2021)
Calcium *mg/dL*	8.9-10.6	9.8	**8.7↓**	Hypercalcemia, hyperthyroidism, hyperparathyroidism, lymphoma (Pagana, 2021)
Mag *mg/dL*	1.6-2.6	No data	1.8	
Phosphate *uL*	2.3-4.7	No data	3.3	
Bilirubin *mg/dL*	0.2-1.2	0.4	0.2	
Alk Phos uL	40-150	81	56	

Lab values: (Epic, Carle Foundation Hospital, 2024)

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				
pH				
Specific Gravity				
Glucose				
Protein				
Ketones				
WBC				
RBC				
Leukoesterase				

No data provided on urinalysis

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				
Blood Culture				
Sputum Culture				
Stool Culture				

No data provided on culture

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

The patient received an x-ray upon admission of the pelvis and femur. X-ray showed:

- Osteopenia limits detection for fracture
- Acute fracture involving the distal third diaphysis of the R femur with soft tissue swelling
- Fracture fragments demonstrate displacement, angulation, rotation and overriding.

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required. The student and instructor may complete these assessments together.

GENERAL:	
Alertness:	Alert and oriented x4 to person, place, and time
Orientation:	
Distress:	No signs of distress
Overall appearance:	Well groomed
INTEGUMENTARY:	
Skin color:	Skin is pink, appropriate for ethnicity
Character:	Dry upon palpation. Normal quantity, distribution and texture of hair.
Temperature:	Warm upon palpation
Turgor:	Skin turgor normal mobility
Rashes:	No rashes
Bruises:	WDL bruises on legs during inspection
Wounds: .	No wounds
Braden Score:	Braden Score: **21**
Drains present: Y☐ N ☐	No drains present
Type:	

HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	.
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:**	.
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	.
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:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **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** ☐	
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
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):**	No date. Patient stated she does not have any stress at this time Oriented x4 Church of Jesus Christ Independent at home but have family and friend support

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
9:23a	76	146/58 R arm, sitting	20	98.6f Orally	92% Room air

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
9:26am	Number	R leg	Denies pain	-	monitor

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240 mL grape juice for breakfast	525 foley output

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

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.

pertinent to this client				

1. Impaired physical mobility related to insufficient environmental support as evidenced by musculoskeletal impairment due to fall (Phelps, 2020). This diagnosis was chosen because she has limitation in independence (Phelps, 2020). As an intervention, patients will be referred to physical therapy for development of mobility regimen to help rehabilitate musculoskeletal deficits (Phelps, 2020). Outcome is patient will maintain strength and joint ROM (Phelps, 2020). Patient evaluation will be to maintain muscle strength and ROM (Phelps, 2020). The patient agreed with this intervention and evaluation only if she can have outpatient care. Patient stated she did not want to go to a nursing home for rehab.
2. Risk of injury related to physical barriers. This diagnosis was chosen because there was an accumulation of outside environmental clutter which resulted in her fall (Phelps, 2020). As an intervention, I will encourage the patient to make repairs and remove potential fall hazards from environment to decrease possibility of injury (Phelps, 2020). Outcome: patient and family will develop strategies to maintain outside environment safety. I will evaluate how the patient and family identifies safety hazards in their surroundings (Phelps, 2020). Patient agreed with this intervention and evaluation.

Subjective Data

Tripping resulting in fall, dehydrated, pain from injury and surgery

Objective Data

Pulse: 76; Bp 145/58 R arm, sitting; Resp Rate 20; Temp 98.6F; Oxygen 92 room air

Abnormal lab values

Elevated RBC, WBC, Hgb, Hct

Elevated Sodium, Glucose, BUN, Creatinine, Albumin, Calcium

Client Information

73 yrs old, female, widow, white/non-Hispanic, 4'11, 162lb

Nursing Diagnosis/Outcomes

1. Impaired physical mobility related to insufficient environmental support as evidenced by musculoskeletal impairment due to fall (Phelps, 2020
2. Risk of injury related to physical barriers. This diagnosis was chosen because there was an accumulation of outside environmental clutter which resulted in her fall (Phelps, 2020)

Nursing Interventions

1. patients will be referred to physical therapy for development of mobility regimen to help rehabilitate musculoskeletal deficits (Phelps, 2020)
2. I will encourage the patient to make repairs and remove potential fall hazards from environment to decrease possibility of injury (Phelps, 2020).

Reference:

Diagnostic Imaging Reference (1) (APA):

Carle Foundation Hospital. (2024, October 18). Epic.

Lab Correlations Reference (1) (APA):

Carle Foundation Hospital. (2024, October 18). Epic.

Pagana, K. Pagana, T. Pagana, T. (2021). *Mosby's Diagnostic and Laboratory Test Reference: sixteenth edition*. Elsevier.

Nursing Diagnosis Reference (1) (APA):

Phelps, L. (2020, Feb 4). *Sparks and Taylor's Nursing Diagnosis Reference Manual: Eleventh Edition*. Wolter's Kluwer.

Pathophysiology References (2) (APA):

Bone Fractures. (2022, Sept 1). Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/15241-bone-fractures

Broken Femur. (2022, Jan 18). Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/22299-broken-femur

Chang A, Breeland G, Black AC, et al, (2023, Nov 17). *Anatomy, Bony Pelvis and Lower Limb: Femur*. StatPearls Publishing. Available from: https://www.ncbi.nlm.nih.gov/books/NBK532982/

Denisiuk M, Afsari A. (2023, Jan 2). *Femoral Shaft Fractures.* StatPearls Publishing. Available from: https://www.ncbi.nlm.nih.gov/books/NBK556057/

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Gage, M. Lowe, J. (2024). Femur Shaft Fractures (Broken Thighbone). OrthoInfo. https://orthoinfo.aaos.org/en/diseases--conditions/femur-shaft-fractures-broken-thighbone/