N311 Care Plan # 4

Lakeview College of Nursing

Toni Andres

Demographics (5 points

Date of Admission 12-28-21	Client Initials B.B	Age 90	Gender Female
Race/Ethnicity White	Occupation Unknown	Marital Status Widowed	Allergies NKA
Code Status Full Code	Height 60in	Weight 128.8kg	

Medical History (5 Points)

Past Medical History:
Anemia
CVA
Difficulty walking
Essential hypertension
Fall risk
Hip fracture
Hyperlipidemia
Hypertension
Sick sinus syndrome
Unspecified sequelae cerebrovascular disease
Weakness

Past Surgical History:
Open reduction internal fixation hip trochanteric nail fixation (TFN)
Femur IM Nail

Family History:
Father- Cancer
Mother-Chronic Heart Failure

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):
Tobacco use- Never
Alcohol use- Never used
Substance use- Never

Admission Assessment

Chief Complaint (2 points):
Proximal left femur fracture

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

The patient is a 90-year-old white female, current resident of Mattoon Health Care. The patient has a history of open reduction intramedullary fixation proximal left femur fracture. The patient is a pleasant well developed and seemingly well-nourished female with no obvious signs of distress. The patient is alert and oriented to person place and time. The patient fell on 12/25/21. The patient had open reduction intramedullary fixation proximal left femur fracture and was admitted to Mattoon health care for rehabilitation on 12/28/21. The patient denies any pain and has been walking with weight-bearing as tolerated with a walker and some assistance. The patient does state "sometimes her leg is achy but for her age being achy is normal". There are no aggravating factors or relieving factors of the injury at this time due to denial of pain. The patient continues with physical therapy, will be weight-bearing as tolerated with the use of a walker, and will continue activities as tolerated. Present vital signs are T: 97.5ºF (temporal) HR: 81 RR: 20 BP: 132/78 Sp02: 96% (RA).

Primary Diagnosis

Primary Diagnosis on Admission (3 points):
Displaced subtrochanteric fracture of left femur

Secondary Diagnosis (if applicable):
Unspecified sequelae of unspecified cerebrovascular disease

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

Pathophysiology References (2) (APA):

Introduction

For this paper, the primary diagnosis of displaced subtrochanteric fracture of the left femur will

be referred to as a proximal femur fracture. Total hip arthroplasty is often due to proximal femur

fractures. A substantial number of patients who present with proximal femur fractures will

sustain their injury by performing activities of daily living and rarely report significant trauma

associated with their presentation (StatPearls, 2021).

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Disease Process

A fracture is a medical term used to describe a broken bone. Fractures happen when the physical force exerted on the bone is stronger than the bone itself. Causes range from low bone density and osteoporosis, which cause the bone to be weak and or brittle, where little to no trauma is involved that cause the fracture. Other causes involving more severe trauma may include car accidents, falls, or sports injuries. There are several types of fractures, but the main types are labeled as follows, complete, incomplete, open, closed, and pathological. An incomplete fracture involves only a cross-section of the bone; one side breaks in the other bends; it is also referred to as a greenstick fracture. A complete fracture involves an entire cross-section of the bone, and bone fragments are usually displaced from the bone. A closed fracture does not extend through the skin. An open fracture involves bone fragments that extend through the muscle and skin and are at risk for potential infection. Pathological fractures often occur in diseased bone, such as individuals with cancer and osteoporosis, and occur with little or no trauma (Vera, 2022). A proximal femur fracture would be considered a pathological fracture. Patients deemed at risk for a proximal femur fracture include those with metabolic disease, medication-related bone loss, osteoporosis, and substance abuse. These types of fractures are two to three times more likely in females than males (Mittal & Banerjee, 2012).

Signs and Symptoms

A history of fragility fractures and how patients present is highly variable. Many patients often present with thigh or leg pain and cannot ambulate. Some have indefinable thigh pain but are still able to ambulate. Physical exams vary among patients, but visible deformity is not easily recognizable, nor is significant soft tissue damage surrounding the femur. Minor trauma accounts

for many presentations of proximal femur fractures. Neurovascular injury is not common with these fractures but is evaluated and documented (Marino, 2021).

Diagnostic Testing

A proximal femur fracture evaluation could include an X-ray and a computed tomography (CT) scan. An X-ray is a type of radiation called electromagnetic waves. An X-ray creates pictures of the inside of the body, shown in different colors, white, grey, and black. Calcium in bones absorbs the most radiation causing them to look white. Air absorbs the least amount of X-rays, so they look black. Fat and other soft tissue absorb less and look gray. The most common use of X-rays is to check for fractures (U.S. National Library of Medicine, 2022). Depending on the situation, an X-ray can be done in a radiology department, or portable X-ray machines can be brought to a patient's hospital room.

A CT scan can detect bone and joint issues such as complex bone fractures and tumors, showing internal injuries and bleeding. A CT scan can visualize nearly all parts of the body. A CT scan puts together a series of X-ray images taken from several angles around the body and then computes them to create cross-sectional slices of its bones, blood vessels, and soft tissues. A CT scan can provide more detailed information than astandard X-ray. It can be used to diagnose and plan treatment (Mayo Foundation for Medical Education and Research, 2022).

Treatment

Classification systems play an essential role in orthopedics. Most fractures in the body have a classification system designed to direct treatment. Garden's classification system is the most widely used classification category of femoral neck fractures. The four categories of Garden's classification are, type I, which include incomplete fractures, type II, which include

complete fracture without displacement, type III, which include complete fracture with partial

displacement and type IV, which include complete fracture with complete displacement (Mittal

& Banerjee, 2012)

An open reduction of intramedullary fixation is a standard modality for a proximal femur

fracture fixation. The majority of total hip implants combine metals such as cobalt and

chromium. The primary conclusion for treatment is that early anatomical reduction and surgical

fixation remain the most effective option to reduce the risk of complications when treating

proximal femur fractures.

Reference

Marino, D. V. (2021, August 11). *Periprosthetic distal femur fracture*. National Center for

Biotechnology Information. Retrieved March 18, 2022, from

https://www.ncbi.nlm.nih.gov/books/NBK554439/?report=printable

Mittal, R., & Banerjee, S. (2012, June). *Proximal femoral fractures: Principles of Management

and Review of Literature*. Journal of clinical orthopedics and trauma. Retrieved March 18,

2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872791/

Mayo Foundation for Medical Education and Research. (2022, January 6). *CT Scan*. Mayo

Clinic. Retrieved March 22, 2022, from https://www.mayoclinic.org/tests-procedures/ct-

scan/about/pac-20393675

StatPearls. (2021, July 18). *Periprosthetic proximal femur fractures*. StatPearls. Retrieved March

23, 2022, from https://www.statpearls.com/articlelibrary/viewarticle/27022/

U.S. National Library of Medicine. (2022, March 16). *X-rays*. MedlinePlus. Retrieved March 20,

2022, from https://medlineplus.gov/xrays.html

Vera, BSN, R.N., M. (2022, March 18). *Nursing care plan guide for fractures: 11 nursing

diagnoses*. Nurseslabs. Retrieved March 20, 2022, from https://nurseslabs.com/fracture-

nursing-care-plans/

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	NA	NA	NA	NA
Hgb	NA	NA	NA	NA
Hct	NA	NA	NA	NA
Platelets	NA	NA	NA	NA
WBC	NA	NA	NA	NA
Neutrophils	NA	NA	NA	NA
Lymphocytes	NA	NA	NA	NA
Monocytes	NA	NA	NA	NA
Eosinophils	NA	NA	NA	NA
Bands	NA	NA	NA	NA

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-	NA	NA	NA	NA
K+	NA	NA	NA	NA
Cl-	NA	NA	NA	NA
CO2	NA	NA	NA	NA
Glucose	NA	NA	NA	NA
BUN	NA	NA	NA	NA
Creatinine	NA	NA	NA	NA
Albumin	NA	NA	NA	NA
Calcium	NA	NA	NA	NA
Mag	NA	NA	NA	NA
Phosphate	NA	NA	NA	NA
Bilirubin	NA	NA	NA	NA
Alk Phos	NA	NA	NA	NA

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	NA	NA	NA	NA
pH	NA	NA	NA	NA
Specific Gravity	NA	NA	NA	NA

Glucose	NA	NA	NA	NA
Protein	NA	NA	NA	NA
Ketones	NA	NA	NA	NA
WBC	NA	NA	NA	NA
RBC	NA	NA	NA	NA
Leukoesterase	NA	NA	NA	NA

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	NA	NA	NA	NA
Blood Culture	NA	NA	NA	NA
Sputum Culture	NA	NA	NA	NA
Stool Culture	NA	NA	NA	NA

Lab Correlations Reference (1) (APA):

All Other Diagnostic Tests (10 points):

Diagnostic Imaging

X-rays are a type of diagnostic imaging to view fractures and for procedural operations that can provide a visual indication of proper alignment or beginning callus formation and

healing process to decide the level of activity and need for changes in or for added therapy (Vera, et al., 2022). A proximal femur fracture X ray assessment from the hip to the ankle can provide acceptable visualization of the ipsilateral hip and knee and is crucial for defining what implants would be available or what other options there may be. Proximal femur fractures are complex orthopedic issues that carry significant morbidity and mortality (Emmerson, 2022).

A computed tomography (CT) scan may be ordered and can display fine detail with three-dimension reconstitution. Being familiar with the radiographic appearance of standard arthroplasty implants can increase the ability to decide on a preoperative plan (Marino, 2021).

Diagnostic Imaging Reference (1) (APA):

Emmerson, B. R. (2022, February 12). *Hip fracture overview*. StatPearls [Internet]. Retrieved
      March 19, 2022, from https://www.ncbi.nlm.nih.gov/books/NBK557514/

Marino, D. V. (2021, August 11). *Periprosthetic distal femur fracture*. National Center for
      Biotechnology Information. Retrieved March 18, 2022, from
      https://www.ncbi.nlm.nih.gov/books/NBK554439/?report=printable

Vera, BSN, R.N., M. (2022, March 18). *Nursing care plan guide for fractures: 11 nursing
      diagnoses*. Nurseslabs. Retrieved March 20, 2022, from https://nurseslabs.com/fracture-
      nursing-care-plans/

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

Brand/Generic	Bayer Aspirin tablet/Salicylic Acid	Cozaar/Losartan Potassium	Lopressor/Metoprolol Tartrate Tablet	Acetaminophen	Calcium Carbonate 600
Dose	325mg	50mg	12.5mg	650mg	600mg
Frequency	Once a day	Two times a day	Two times a day	Every 4 hours PRN	Two times a day
Route	Oral	Oral	Oral	Oral	Oral
Classification	Pharmacologic: Salicylate Therapeutic: NSAID- Anti-inflammatory, antiplatelet, antipyretic, nonopioid analgesic (Jones & Bartlett, 2021).	Angiotensin II Receptor Antagonist (ARBs) (Mulla, 2022).	Cardioselective beta-1-adrenergic receptor inhibitor (Morris, 2022).	Nonopioid analgesic and antipyretic agent (Gerriets, 2021).	Calcium supplement, antacid, and phosphate binder. (Fritz, 2022).

Mechanism of Action	Aspirin relieves pain because prostaglandins play a role in pain transmission from the periphery to the spinal cord. Aspirin inhibits platelet aggregation. Aspirin acts on the heat regulating center in the hypothalamus and causes peripheral vasodilation, diaphoresis and heat loss (Jones & Bartlett, 2021).	Losartan increases the urinary flow and increases the excretion of sodium, potassium, chloride, magnesium, uric acid, calcium, and phosphate. (Mulla, 2022).	Metoprolol is used to treat angina, heart failure, myocardial infarction, atrial fibrillation/flutter, and hypertension. Metoprolol excretion principally occurs via the kidneys (Jones & Bartlett, 2021).Metoprolol succinate produces more level drug concentrations as compared to metoprolol tartrate, which has more peak to trough variation. Despite their differences, studies have concluded that both agents produce similar clinical effects both acute and chronic (Jones & Bartlett, 2021).	Although its exact mechanism of action remains unclear, it is historically categorized along with NSAIDs because it inhibits the cyclooxygenase (COX) pathways. Acetaminophen is used to treat pain and fever. (Gerriets, 2021).	Calcium carbonate affects the stomach, small intestine, and blood. Calcium carbonate is an inorganic salt primarily used in the management and treatment of low calcium conditions GERD, CKD, and various other indicated conditions. It can neutralize gastric acid by acting as a buffer in the stomachs acidic environment. as a phosphate binder and drug chelator, it works in the small intestine it will bind to form an insoluble compound blocking dietary phosphate or excess drug absorption and excreting it in feces. It also acts in the small intestine by chelating with oxalate to prevent absorption in renal calculi formation. Calcium

					carbonate works in the blood to treat or prevent negative calcium balances seen in low serum calcium conditions, ionized calcium circulates in the blood.(Fritz, 2022).
Reason Client Taking	DVT Prophylaxis following hip surgery	Hypertension	Hypertension	Hypertension	Hypertension
Contraindications (2)	1.Active bleeding or coagulation disorders 2.GI bleed or ulcers (Jones & Bartlett, 2021).	1.Pregnancy 2.Use of Aliskiren (Mulla, 2022).	1.Cardiogenic shock 2. Heart block greater than first degree, second and third degree heart block, moderate to severe cardiac failure Jones & Bartlett 2021) 3.Sick sinus syndrome	1. Severe hepatic impairment 2. Severe active hepatic disease (Gerriets, 2021).	1. Renal calculus 2. High urine calcium levels (Fritz, 2022).
Side Effects/Adverse Reactions (2)	1. Prolonged bleeding time 2.Tinnitus (Jones & Bartlett, 2021).	1. Hyperkalemia 2. Renal insufficiency (Jones & bartlett, 2021).	1.Heart failure exacerbation 2. Hypotension (Jones & Bartlett, 2021).	1. Skin rash 2. Nephrotoxicity (Jones & Bartlett, 2021).	1.High calcium levels 2.Low phosphate levels (Jones & Bartlett, 2021).

Medications (5 required)

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2021). *Nurse's Drug Handbook.*

Fritz, K. (2022, January 6). *Calcium carbonate*. StatPearls [Internet]. Retrieved March 20, 2022,

   from https://www.ncbi.nlm.nih.gov/books/NBK562303/

Gerriets, V. (2021, July 3). *Acetaminophen*. StatPearls [Internet]. Retrieved March 20, 2022,

   from https://www.ncbi.nlm.nih.gov/books/NBK482369/

Morris, J. (2022, January 19). *Metoprolol*. StatPearls [Internet]. Retrieved March 20, 2022, from

   https://www.ncbi.nlm.nih.gov/books/NBK532923/

Mulla, S. (2022, February 9). *Losartan*. StatPearls [Internet]. Retrieved March 21, 2022, from

   https://www.ncbi.nlm.nih.gov/books/NBK526065/

Assessment

Physical Exam (18 points) – <mark>HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS</mark>

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient is alert and oriented X 4 with no signs of obvious distress, overall appearance was appropriate for time and place.
INTEGUMENTARY:	Nothing remarkable found, skin pink warm and

Skin color: **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	dry, hydrated, no tenting of skin, no rashes bruises, or open wounds noted.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The skull is normal cephalic. Hair is minorly thinning but otherwise healthy, no scalp lesions noted. The trachea is midline and neck is supple with full range of motion period. Ears are symmetrical with good hearing acuity. Eyes noted sclera white conjunctiva pink, pupils equally round reactive to light and accommodation (PERRLA). Nose: nasal mucosa pink septum is midline. Throat oral mucosa pink and moist.
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:**	Nothing remarkable was noted regarding heartsounds. Peripheral pulses strong nothing remarkable noted. Capillary refill was brisk and under 2 seconds.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Nothing remarkable regarding breath sounds.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:**	Normal diet with no restrictions. Current height 60 inches weight 128.8 kilograms. Nothing remarkable upon auscultation of bowel sounds last bowel movement last evening. Upon palpation of abdomen no pain no mass noted no distension no incisions no drains no wounds.

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: NA
Catheter: Y ☐   N ☒
   Type:
   Size:
	No output noted upon visit

MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance:** Y☒ N ☒ **Fall Risk:** Y ☒ N☐ **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) -Y** **Needs assistance with equipment- N** **Needs support to stand and walk- X**	No abnormal curvature of spine full range of motion and neck arms. Mid range of motion in left leg and full range of motion in right leg. No muscle atrophy noted. Patient is active and mobile. But does have a history of falls. Does not need assistance upon standing but does use a walker for support.
NEUROLOGICAL: **MAEW:** Y ☐ N☒ **PERLA:** Y ☒ N☐ **Strength Equal:** Y ☐ N ☒ **if no -** **Legs** ☐ **Arms** ☒ **Both** ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Patient moves most extremities well. Moves her arms well but moves legs unequally. Left leg has less range of motion. Muscle strength of arms was 5/5 bilaterally. Muscle strength and right leg was 5/5, 3/5 on the left leg. The patient is alert and oriented to person place and time with normal speech, no motor deficits are noted. Patient has history of CVA on the right side nothing remarkable noted. Patient has recovered fully.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:**	Patient is satisfied with recovery in the rehabilitation unit. Patient discussed interesting stories regarding her parents and her grandchildren. Patient is looking forward to

Personal/Family Data (Think about home environment, family structure, and available family support):	moving back home and being able to work in her yard and visit with her grandkids and great grandkids.

Vital Signs, 1 set (5 points) – <mark>HIGHLIGHT ALL ABNORMAL VITAL SIGNS</mark>

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0825	81	132/78	20	97.5F	96 RA

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	Numerical	General allover	0	Achy comes and goes	Moving around or rest depending on where she achs

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
480mL	No output while present

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

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
1.Impaired physical mobility related to decrease strength, secondary to	1. Being an elderly patient with a severe break and surgery,	1.The nurse and PTA will educate and demonstrate to the patient post-opt exercises to	1. The patient will participate in post-opt exercises to increase mobilization 3 times a week until released by doctor (Wayne, 2022)	1. The patient is continuing to working with therapy and will be weight bearing as tolerated, until

reduction intra medullary fixation of proximal left femur fracture as evidence by x-ray showing displaced subtrochanteric fracture of left femur (Wayne, 2022).	there is a risk for the patient to not be as mobile as prior to the incident (Wayne, 2022).	increase mobilization each week at physical therapy. **2.**The nurse will ensure patient wears compression stockings and SCD device daily to decrease DVT development		she is able to resume to normal activities with minimal assistance of DME.
2.Risk for falls related to decreased strength, secondary to closed reduction intra medullary fixation of proximal left femur fracture as evidence by x-ray showing displaced subtrochanteric fracture of left femur (Wayne, 2022).	2. Having suffered a major break causing impairment of movement and temporary immobility, it is possible that the patient would be weak, and unstable when trying to stand, thus creating a greater risk for falls (Wayne, 2022).	**1.** Design an individualized plan of care for preventing falls that is individualized to the patient's unique needs (Wayne, 2022) **2.**Place patients bed at the lowest possible position and set the patient's sleeping surface as near the floor as possible (Wayne, 2022).	1. The patient will not sustain a fall during physical therapy (Wayne, 2022).	The patent was able to bare weight with minimal assistance.

Other References (APA):

Wayne, BSN, R.N., G. (2022, March 19). *Nursing diagnosis guide for risk for falls*. Nurseslabs.

      Retrieved March 20, 2022, from https://nurseslabs.com/risk-for-falls/

Concept Map (20 Points):

Subjective Data

Denies any pain
Said she was going to see her family when she tripped and fell.
Says she enjoys physical therapy most of the time

Nursing Diagnosis/Outcomes

Objective Data

vital signs T: 97.5°F (temporal) HR: 81
RR: 20 BP: 132/78 Sp02: 96% (RA)
Date of injury: 12/25/21
Had open reduction intramedullary fixation proximal left femur fracture
Is alert and oriented to time, place and person

Client Information

A 90-year-old white female, current resident of Mattoon Health Care. The patient has a history of open reduction intramedullary fixation proximal left femur fracture. The patient is a pleasant well developed and seemingly well-nourished female with no obvious signs of distress. The patient is alert and oriented to person place and time. The patient fell on 12/25/21. The patient had open reduction intramedullary fixation proximal left femur fracture and was admitted to Mattoon health care for rehabilitation on 12/28/21

Nursing Interventions

The nurse and PTA will educate and demonstrate to the patient post-opt exercises to increase mobilization each week at physical therapy.

2.The nurse will ensure patient wears compression stockings and SCD device daily to decrease DVT development

Place patients bed at the lowest possible position and set the patient's sleeping surface as near the floor as possible (Wayne, 2022).

Design an individualized plan of care for preventing falls that is individualized to the patient's unique needs (Wayne, 2022)