N311 Care Plan #2

Lakeview College of Nursing

Ashley Pascual

Demographics (5 points)

Date of Admission 9/17/21	Patient Initials MH	Age 78	Gender Female
Race/Ethnicity Caucasian	Occupation Unemployed	Marital Status Widowed	Allergies Coconut, latex, sulfa antibiotics, sympathomimetic agents, cinnamon, peanut butter.
Code Status Full Code	Height 5'3"	Weight 105 lbs	

Medical History (5 Points)

Past Medical History:. Allergic Rhinitis, Anxiety, Arthritis, Breast Cancer, Depression, Hearing loss, Hypercholesterolemia, Hypothyroidism, Lactose Intolerance, Rib fracture 6-10(R), and Schizophrenia.

Past Surgical History: Botox Injection (6/30/2020), Breast lumpectomy (Left) and Reconstruction (3/2/2016), Cataract removal (1/23/2019), Lymphonodectomy (5/22/20), Humerus fracture surgery (1/23/2019), and Lymphonodectomy left axillary (10/20/2016)

Family History: Mother: Diabetes and Sister: Cancer.

Social History (tobacco/alcohol/drugs): Never smoked or used drugs/alcohol

Admission Assessment

Chief Complaint (2 points): Foot Pain, Broken Metatarsal (Left)

History of present Illness (10 points):.

Diagnosed 9/14/2021. Patient dropped a food tray on her left foot that broke one of her metatarsals. Patient was sent to Illini Heritage for physical therapy during recovery.

Primary Diagnosis

Primary Diagnosis on Admission (3 points):. Metatarsal bone fracture

Secondary Diagnosis (if applicable):.N/A

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

Pathophysiology References (2) (APA):

Latimer, T. (2018). *Pathology of fractures and fracture healing*. Physiohaus. Retrieved October 21, 2021, from https://www.physiohaus.co.uk/pathology-of-fractures-and-fracture-healing/.

Britannica, T. Editors of Encyclopaedia (2020, February 20). *fracture*. *Encyclopedia Britannica*.

https://www.britannica.com/science/fracture-of-bone

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	**4.35-5.65**	**3.69**	**3.91**	**Most likely cause of low RBC is from the patients diagnosis of hypothyroidism. Thyroid dysfunction can cause a variety of different issue in blood cell counts including anemia.** (*Low Red Blood Cell Counts (anemia)* 2020)
Hgb	**13.2-16.6**	**12.0**	**12.8**	**Low Hgb is directly correlated with the low RBC because without red blood cells hemoglobin has nothing to attach to. .** (Dorgalaleh et al, 2013)
Hct	**38.3-48.6**	**36.9**	**39.4**	**HCT is also affected by both the low Hgb and low RBC count. All of**

				these may come from the patients history with cancer and cancer treatments. . (Dorgalaleh et al, 2013)
Platelets	**135-317**	**118**	**117**	**The Patient has a history of breast cancer that was treated, some forms of Cancer treatment do affect blood cell counts because of damage to the bone marrow, which may explain the low CBC overall** (*Low platelet count or thrombocytopenia* 2020)
WBC	**3.4-9.6**	**4.24**	**5.53**	
Neutrophils	**2.5-7**	**2.39**	**N/A**	
Lymphocytes	**4.5-11.0**	**1.17**	**N/A**	
Monocytes	**3-13**	**N/A**	**N/A**	
Eosinophils	**0.0-0.6**	**0.02**	**N/A**	
Bands	**None**	**None**	**None**	

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value (9/17)	Today's Value (9/15)	Reason For Abnormal
Na-	**134-143**	**142**	**142**	
K+	**3.5-4.5**	**3.3**	**4.0**	
Cl-	**95-108**	**103**	**104**	
CO2	**20-30**	**33.0**	**32.0**	
Glucose	**90-120**	**67**	**70**	**Within the patients diagnoses there is not a specific reason for the low blood glucose, this could be that the patient did not eat for a long period of time prior to participating in a test.**

BUN	**6-24**	**15**	**14**	
Creatinine	**0.7-1.4**	**0.60**	**0.61**	
Albumin	**3.5**	**3.2**	**3.2**	
Calcium	**8.5-10.5**	**8.9**	**8.3**	
Mag	**1.7-2.2**	**2.0**	**2.2**	
Phosphate	**None**	**N/A**	**N/A**	
Bilirubin	**1.2**	**N/A**	**N/A**	
Alk Phos	**44-147**	**68**	**68**	

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	**Pale yellow and clear**	**N/A**	**N/A**	
pH	**4.6-8**	**N/A**	**N/A**	
Specific Gravity	**1.000-1.032**	**N/A**	**N/A**	
Glucose	**Negative**	**N/A**	**N/A**	
Protein	**>150**	**N/A**	**N/A**	
Ketones	**Negative**	**N/A**	**N/A**	
WBC	**2-5 wbc/hpf**	**N/A**	**N/A**	
RBC	**0-3 rbc/hpf**	**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	**<10,000 bacteria**	**N/A**	**N/A**	
Blood Culture	**No Bacteremia**	**N/A**	**N/A**	
Sputum Culture	**Normal upper respiratory tract**	**N/A**	**N/A**	
Stool Culture	**Normal intestinal flora**	**N/A**	**N/A**	
COVID-19	**Negative**	**Negative**	**Negative**	

Lab Correlations Reference (APA):

Low platelet count or thrombocytopenia. Cancer.Net. (2020, October 28). Retrieved October 21, 2021, from https://www.cancer.net/coping-with-cancer/physical-emotional-and-social-effects-cancer/managing-physical-side-effects/low-platelet-count-or-thrombocytopenia#:~:text=Some%20types%20of%20cancer%20medications%2C%20such%20as%20chemotherapy%2C,rare%20that%20chemotherapy%20permanently%20damages%20bone%20marrow%20cells.

Dorgalaleh A;Mahmoodi M;Varmaghani B;Kiani Node F;Saeeidi Kia O;Alizadeh Sh;Tabibian Sh;Bamedi T;Momeni M;Abbasian S;Kashani Khatib Z; (2013). *Effect of thyroid dysfunctions on blood cell count and Red Blood Cell Indice*. Iranian journal of pediatric hematology and oncology. Retrieved October 21, 2021, from https://pubmed.ncbi.nlm.nih.gov/24575274/.

Low Red Blood Cell Counts (anemia). American Cancer Society. (2020). Retrieved October 21, 2021, from https://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts/anemia.html.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Xray performed 9/14/2021. Finding: slightly displaced fracture of the base of the second metatarsal bone with overlaying soft tissue swelling. Bones are osteopenic. Chronic post traumatic deformity of the 5th metatarsal.

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

Medications (5 required)

Brand/Generic	Acetaminophen	Alendronate	Calcium Carbonate/ Vit. D	Divalproex	Glucosamine chondroitin
Dose	500mg	70mg	60 mg	1,000mg	750-600 mg
Frequency	Every 4 hours as needed	Every 7 days	2x Daily	2 tablets at bedtime	Once a day
Route	oral	Oral	Oral	Oral	oral
Classification	Nonsalicylate, para-aminophenol derivative	Bisphosphonate	Calcium salts	Anticonvulsant	Amino sugar
Mechanism of Action	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.	Reduces activity of cells that cause bone loss, slows rate of bone loss after menopause and increases the amount of bone mass.	Increases levels of intracellular and extracellular calcium, which is needed to maintain homeostasis, especially in the nervous and musculoskeletal system.	Inhibits enzymes that catabolize GABA or block the reuptake of GABA into glia and nerve endings	Stimulates the anabolic process of the cartilage metabolism, anti-inflammtory delays inflammation induced catabolic processes in cartilage
Reason Client Taking	Pain control	To stop post menopausal osteoporosis	Antacid	Help with manage of manic episodes from schizophrenia	Management of osteoporosis as well as pain that comes with it
Contraindications	Hypersensitivity	Esophageal	Cardiac	Significant	Asthma and Allergy

(2)	to acetaminophen with any other medication. Diazepam and chlorpromazine are physically incompatible.	abnormalities that delay esophageal emptying, and hypersensitivity to alendronate or its components	resuscitation with risk of existing digitalis toxicity and hypercalcemia	hepatic impairment and Urea cycle disorders	to shellfish
Side Effects/Adverse Reactions (2)	Agitation and hypotension	Peripheral edema and abdominal pain	Paresthesia and Nausea	Nausea and Headache	Diarrhea and itching

Medications Reference (APA):

Jones & Bartlett Learning. (2021). *Nurse's Drug Handbook* (20th ed.).

Assessment

Physical Exam (18 points)

GENERAL: **Alertness: Fully** **Orientation: x4** **Distress: None** **Overall appearance: Well Groomed**	Patient appears alert and oriented x4. Groomed and in no acute distress.
INTEGUMENTARY: **Skin color: White, appropriate** **Character:** **Temperature: cool, dry** **Turgor:normal** **Rashes:N/A** **Bruises: N/A**	Skin color white, appropriate for ethnicity. Skin is cool and dry upon palpation. No rashes, lesions or bruising. Normal quantity, distribution and texture of hair. Nails without clubbing or cyanosis. Skin turgor

Wounds: N/A **Braden Score: 18 (Mild Risk)** **Drains present: Y☐ N ☒** **Type:**	normal mobility. Capillary refill less than 3 seconds in toes and fingers bilaterally
HEENT: **Head/Neck:** **Ears:** **Eyes: Glasses** **Nose:** **Teeth: Some**	Bilateral sclera white, Conjunctiva appears pink and moist, cornea clear. eyelids are bilateral with no lumps, bumps, or bruises, PERRLA bilateral. No notable drainage. .
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:**	Clear S1 and S2 sounds without murmurs, gallops, or rubs. PMI palpable at 5th intercostal space at MCL. normal rate and rhythm. .
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	. Lungs sounds normal. Normal rate and pattern of respirations. Respirations are symmetrical and unlabored. Lungs sounds clear throughout anterior/posterior bilaterally, no wheezes, rhonchi, or crackles noted.
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 ☒**	.Abdomen is soft, and non-tender. No masses noted upon palpation. Bowel sounds are normoactive

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:**	No complaints of pain with urination.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices: Walker, 4 point cane, Splint on Left foot** **Strength: Equal strength Bilaterally arms and legs.** **ADL Assistance: Y ☒ N ☐** **Fall Risk: Y N ☒** **Fall Score:** **Activity/Mobility Status: limited** **Independent (up ad lib) ☐** **Needs assistance with equipment ☒** **Needs support to stand and walk ☒**	.Upper limbs have full range of motion, lower have full range of motion except where the splint covers on the left leg. Hand grips and pedal pushes equal strength bilaterally. Patient must be assisted to their wheelchair. .
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation: x4** **Mental Status:** **Speech: Slurred** **Sensory:** **LOC: N/A**	Patient is alert and oriented to person, place, and time. PERRLA.
PSYCHOSOCIAL/CULTURAL: **Coping method(s): Reading the Bible** **Developmental level: Appropriate** **Religion & what it means to pt.:Church of the Brother** **Personal/Family Data (Think about home**	Client is religious and uses their bible as a coping mechanism. She typically lives at home but does not have a family support system.

environment, family structure, and available family support): Home, no family	

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0820	**68 (Radial)**	**135/80** **(RA)**	**18**	**97.7 F**	**94%**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1200	**Number**	**N/A**	**N/A**	**N/A**	**N/A**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
960 mL	**N/A**

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

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components	• Explain why the nursing diagnosis was chosen		• 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 related to metatarsal fracture as evidenced by use of walker and splint.	The Patient is experiencing difficulty to move around do to the fracture and requires assistance and physical therapy	1. Monitor a record any evidence of immobility 2. Have the patient participate is physical therapy	1. Patient will have no evidence of contractures 2. Patient maintains/ gains muscle strength in affected area.
2. Acute Pain related to fracture as evidenced by Xray of foot.	The patient is taking acetaminophen every 4 hours as needed for pain and the onset of this pain from the broken metatarsal is recent.	1. Assess patients pain before administering pain medication 2. Perform comfort measures to promote relaxation and healing	1. Patients pain diminishes **2.** Patient decreases the amount of pain medication needed.

Other References (APA):

Concept Map (20 Points):

Subjective Data

Patient says she is “in no pain currently”

Nursing Diagnosis/Outcomes

Impaired physical mobility related to metatarsal fracture as evidenced by use of walker and splint. The Patient is experiencing difficulty to move around do to the fracture and requires assistance and physical therapy. Patient will have no evidence of contractures and the patient maintains/ gains muscle strength in affected area

Acute Pain related to fracture as evidenced by Xray of foot. The patient is taking acetaminophen every 4 hours as needed for pain and the onset of this pain from the broken metatarsal is recent.

Objective Data

Pulse: 68 BPM Radial
BP: 135/80 (RA)
RR: 18
T: 97.7 F
SPO2: 94%
Broken Metatarsal (Left)

Patient Information

Patient: MH
Age 78
Marital status: widowed
Female
Full code

Nursing Interventions

1. Monitor a record any evidence of immobility
2. Have the patient participate is physical therapy
3. Assess patients pain before administering pain medication

Perform comfort measures to promote relaxation and healing

Pathology of a Fracture

A fracture, also called a break, is a trauma to the bone that causes it to separate partially or completely. Fractures can be classified into types such as pathologic, fractures from injuries, or fatigue and stress. Fractures from injuries include any break that had high velocity impact that the bone could not withstand. Fatigue/Stress fractures are typical in athletes who may overuse the bone to the point of a break. Pathologic fractures are breaks that occur do to a previous diagnosis of a disease that could affect bone integrity like osteoporosis. Fractures have five stages of healing; 1. Hematoma 2. cellular proliferation 3. Callus 4. Consolidation 5. Remodeling. Stage one is when a hematoma forms around the injury, this is from blood cells leaking out of the injured bone tissue. Stage 2 focuses on cells forming in the periosteum. In stage 3 the osteoblasts, or bone forming cells, begin to lay a "matrix" connecting the broken edges. Stage 4 focuses on maturing the bone cells that were laid in stage 3. The final stage there is a collar of bone around the break that eventually strengthens over time (Latimer, 2018). The patient suffered a left metatarsal fracture from dropping a food tray on her foot while at home. The fracture is considered "simple" because the fracture did not break through the skin, she only had some soft tissue swelling. This was confirmed using an Xray to see the break and diagnose.