N311 Care Plan # 2

Lakeview College of Nursing

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Demographics (5 points)

Date of Admission 10/11/2020	**Patient Initials** DS	**Age** 77	**Gender** Female
Race/Ethnicity White	**Occupation** Retired	**Marital Status** Widow	**Allergies** Escitalopram (Hives)
Code Status Full Code	**Height** 160 cm	**Weight** 47.8 kg	

Medical History (5 Points)

Past Medical History:

Chronic constipation, COPD type A, Vitamin B12 deficiency, Fracture of left hip 04/05/19, Iron deficiency anemia, Multilevel degenerative disk disease, Fracture of numerical head-left, Fracture of right elbow.

Past Surgical History:

Hip fracture 02/2019, Lumbar surgery, Polyp removed from vocal cords, Right ankle surgery.

Family History:

Father: Cancer, Dementia

Mother: Hypertension, Osteoporosis

Social History (tobacco/alcohol/drugs):

Pt denies alcohol and drug use. Tobacco user of 30+ years, a pack a day.

Admission Assessment

Chief Complaint (2 points): Patient complains of chronic back pain.

History of present Illness (10 points):

Patient was admitted on 10/11/20 with a complaint of chronic back pain. Patient has had chronic pain in her back for more than 10 years since she broke her back. She has been diagnosed with osteoporosis. The pain is sharp, constant, and aggravated by movement. Little to no pain was relieved by taking hydrocodone 4x daily. Patient states that her pain was a 10/10 when first arriving.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Osteoporosis

Secondary Diagnosis (if applicable): Compression fracture of L1 and L3 vertebra.

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

Osteoporosis is the result of prolonged negative calcium balance. Calcium, vitamin D, and PTH work together to maintain bone homeostasis. Calcium absorption is started through vitamin D in the intestines. With age, this absorption occurs in lower amounts. When this happens, blood calcium levels fall which causes PTH to take calcium from the bone tissue. The lack of calcium in the bones causes them the thin and eventually break down. This is called bone fractures. The reduction of bone density occurs because of the imbalance between osteoclasts and osteoblasts. Bone formation and resorption are usually done at an equal rate but with age, osteoclasts outdo the osteoblasts. Osteoblasts and activated T cells in the bone marrow produce a cytokine that helps with osteoclast formation.

Osteoporosis can occur because of poor dietary habits, lack of weight exercises, decrease of sex hormones, and lack of exposure to sunlight. Risk factors include the female gender, women who are in the postmenopausal age, family history of osteoporosis, Asian and Caucasian

ethnicity, thin and small framed women, a lack of calcium and vitamin D deficiency, smoking, an abundance of alcohol consumption, an abundance of caffeine consumption, and more.

Diagnosis of osteoporosis includes obtaining a dual energy x-ray absorptiometry. This measures bone density in the lumbar spine and hips (the most common places osteoporosis affects). Also, to diagnose, a bone mineral density should be measured, and measurement results are compared with a reference population of young, healthy adults (Capriotti, 2020). Lastly, a FRAX risk assessment score is done in the total assessment of an individual's risk of osteoporotic fracture.

Treatment of osteoporosis includes lifestyle changes such as a stop to drinking, smoking, and increased regular exercise. Lumbar supports/braces, calcium supplements, vitamin D supplements, Bisphosphonates (these suppress osteoclast activity) would all be ways to try to treat osteoporosis.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives* (2nd Ed). Megan E. Kilm.

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	**3.8-5.4 /mol**	3.99	N/A	

Hgb	**11.3-15.2 g/mol**	11.5	N/A	
Hct	**33.2-45.3 %**	34.3	N/A	
Platelets	**149-393 k/mCl**	27.6	N/A	
WBC	**4.0-11.7 k/mol**	4.7	N/A	
Neutrophils	**45.3-79.0 %**	67.3	N/A	
Lymphocytes	**11.8-45.9 %**	16.3	N/A	
Monocytes	**4.4-12.0 %**	14.2 (H)	N/A	**The monocytes are high to fight off infection.**
Eosinophils	**0-6.3 %**	1.8	N/A	
Bands	**2.4-8.4 %**	N/A	N/A	

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-	**136-145 mmol/L**	136	N/A	
K+	**3.5-5.1 mmol/L**	3.5	N/A	
Cl-	**98-107 mmol/L**	94	N/A	
CO2	**21-31 mmol/L**	36 (H)	N/A	**CO2 directly stimulates osteoclasts, which is what is increased in osteoporosis.**
Glucose	**74-109 mg/dL**	106	N/A	

BUN	**7-25 mg/dL**	6	N/A	
Creatinine	**0.70-1.30 mg/dL**	0.38 (L)	N/A	**Creatinine levels are low because of the high PTH levels.**
Albumin	**3.5-5.2 g/dL**	N/A	N/A	
Calcium	**8.6-10.3 mg/dL**	8.9	N/A	
Mag	**1.6-2.5 mg/dL**	N/A	N/A	
Phosphate	**2.5-4.5 mg/ dL**	N/A	N/A	
Bilirubin	**0.3-1.0 mg/dL**	N/A	N/A	
Alk Phos	**34-104 unit/L**	N/A	N/A	

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/ clear**	Yellow	N/A	
pH	**5-8**	5.0	N/A	
Specific Gravity	**1.005-1.030**	1.014	N/A	
Glucose	**Negative**	Negative	N/A	
Protein	**Negative**	Negative	N/A	
Ketones	**Negative**	Negative	N/A	

WBC	**0 < or = 5**	4	N/A	
RBC	**0 < or = 4**	1	N/A	
Leukoesterase	**Negative**	Negative	N/A	

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

Didn't obtain any cultures

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	**Negative**	N/A	N/A	
Blood Culture	**Negative**	N/A	N/A	
Sputum Culture	**Negative**	N/A	N/A	
Stool Culture	**Negative**	N/A	N/A	

Lab Correlations Reference (APA): Sarah Bush Reference Information

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

CT abdomen and pelvis with contrast, CT chest with contrast, CT spine lumbar without contrast, MRI spine lumbar without contrast, MRI spine thoracic without contrast, US breast biopsy with US guide-Left.

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

Brand/Generic	Lovenox	Colace	Xanax	Toradol	Norco
Dose	40 mg = 0.4 mL	100 mg	0.5 mg	15 mg = 0.5 mL	5 mg
Frequency	SQ Daily	1x Daily	4x Daily	Every 6 hr PRN	Every 4 hr PRN
Route	Injectable	Oral	Oral	IV push	Oral
Classification	Anticoagulant	Laxative	Benzodiazepine	Pyrrole	Analgesic, Opioid
Mechanism of Action	Binds antithrombin III, which leads to inhibition of coagulation factors.	Increases amount of water the stool absorbs in the large intestine, making the stool easier to pass.	Facilitation of gamma aminobutyric acid mediated transmission and enhancement of the effects of glycine at its receptor site.	Inhibition of the enzyme cyclooxygenase reducing prostaglandin and thromboxane synthesis. Poorly penetrates the blood brain barrier and demonstrates minimal anti-inflammatory effect of its analgesic dose.	Binds with the opioid receptors in the brain and blocks the release of excitatory neurotransmitters, which are involved in pain production.
Reason Client Taking	To prevent DVT	To prevent constipation	Patient is a smoker	To decrease inflammation	To decrease pain
Contraindications (2)	Hypersensitivity to enoxaparin sodium, history of	Intestinal obstruction, appendicitis	Liver disease, Severe lung/breathing	Peptic ulcer disease, gastrointestin	Brain disorders, Breathing

	heparin induced thrombocytopenia		problems	al bleeding	problems
Side Effects/Adverse Reactions (2)	Bleeding, Diarrhea	Rash, Cramping	Drowsiness, Fatigue	Headaches, Abdominal pain	Vomiting, Constipation

Medications (5 required)

Medications Reference (APA): Sarah Bush Reference Information

Assessment

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Alert and oriented to name, place, year, and birthday X4 Experiencing no distress Appropriate overall appearance
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	 Skin usual for ethnicity Moist Warm Normal turgor 2+ None Bruise on left chest from chest biopsy None 20 No drains present
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Symmetry of skull and face, tracheal symmetry No change in hearing, clear ear canal No change in vision No nasal drainage No decay

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:**	 S1 and S2 sound clear, no murmur N/A 3+ normal peripheral pulse Sufficient capillary refill No No N/A
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	 No Regular respirations, regular respiratory pattern, clear breath sounds, equal aeration
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:**	 3-6 meals/day NPO 160 cm 47.8 kg Active bowel sounds 10/12/2020 Mass on left chest None None None None None No No N/A No N/A

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	 Yellow Clear N/A No No N/A No N/A N/A
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**	 No clubbing of nailbeds, warm to touch Active ROM Walker 5- Active motion against full resistance No Yes 85 Dependent of equipment when walking
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	 Yes Yes Yes Oriented to name, place, year, and birthday X4 Normal cognition Clear Aware of touch, sound, and light. Alert
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):**	 None No developmental delay, Bachelors in beauty school Methodist Lives alone, has 3 daughters that visit often

Physical Exam (18 points)

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0800	88 bpm	118/72 mmHg	16 resp/min	36.9 C	95% O2

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0900	Numerical	Back	5/10	Dull, constant	Norco was given

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Not documented in chart	400 mL urine

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. Risk for falls related to age and weak bones as evidenced by a fall risk score of 81.	The patients risk for falls is increased because of her age and the condition of her weak bones from the osteoporosis.	1. Bed was kept in low position before I left the room. 2. She used the bed pan to urinate instead of ambulating to the bathroom.	Her risk for falls were decreased by keeping the bed in a low position. They also were reduced by her wanting to use the bed pan instead of ambulating to the bathroom.
2. Risk for injuries related to weakness as evidenced by frequent fractures and hospitalizations.	The patients risk for injuries is increased because of how frequent she has a hospital visit because of a fracture.	1. I discussed her past injuries with her, and she was now aware of how her lifestyle should change to decrease injury. 2. She never got out of bed, so she didn't bump into anything.	Her risk for injuries were decreased by keeping her off her feet and educating her on good habits to begin doing at home.

Other References (APA): N/A

Concept Map (20 Points):

Objective Data

-Pt height is 160 cm and weight is 47.8 kg

Subjective Data

-Pt has a 10/10 back pain.
-At 0800, pt rated her pain a 5/10.
-Pt is a female
-At 0800, pt had a pulse of 88 bpm, a blood pressure of 118/72, a respiratory rate of 16, a temperature of 36.9 C, and an oxygen level of 95%.

Patient Information

-Pt has osteoporosis
-Pt has reoccurring compression fractures
-Pt has L1 and L3 back fracture

Nursing Interventions

-Keep the bed in a low position to prevent falls
-Try and have patient ambulate to bathroom to avoid DVTs.
-Give patient medications to reduce the pain level.

Nursing Diagnosis/Outcomes

Risk for falls related to age and weak bones as evidenced by a fall risk score of 81
- Her risk for falls were decreased by keeping the bed in a low position. They also were reduced by her wanting to use the bed pan instead of ambulating to the bathroom.
Risk for injuries related to weakness as evidenced by frequent fractures and hospitalizations
- Her risk for injuries were decreased by keeping her off her feet and educating her on good habits to begin doing at home