N431 Care Plan # 1

Lakeview College of Nursing

Mary Liesveld

Demographics (3 points)

Date of Admission 10/04/2019	Patient Initials N.C.	Age 60	Gender male
Race/Ethnicity Caucasian	Occupation Recycling plant	Marital Status married	Allergies n/a
Code Status full code	Height 6'1"	Weight 97.6kg	

Medical History (5 Points)

Past Medical History: The patient has no significant past medical history.

Past Surgical History: Open reduction and internal fixation (ORIF) of left ankle in 2004.

Family History: Pt.'s father has a history of CHF and his mother has no significant past medical history.

Social History (tobacco/alcohol/drugs): The patient denies the use of alcohol, tobacco, or drugs. He is married and lives with his wife.

Assistive Devices: The patient does not have any assistive devices within the home. He uses crutches to ambulate and is non-weight bearing on his right leg.

Living Situation: Pt. lives at home with his wife.

Education Level: The patient is a high school graduate.

Admission Assessment

Chief Complaint (2 points): Pain related to right leg laceration and femur fracture. Pt. reports pain to be "Severe, sharp, and unrelenting."

History of present Illness (10 points):

N.C. is a 60 y.o. male who presented to the E.D. on 10/04/2019. He was hit with a high-pressure spring injuring his right leg. The pt.'s injury occurred at work at a local recycling company. Upon arrival to the E.D., the N.C. had a visible deformity to the right thigh. Pt. had a 3-inch laceration

on his right thigh with muscle showing. He was not actively bleeding upon arrival to the E.D. Patient-reported 10/10 pain and described his pain as “Severe, sharp, and unrelenting.” N.C.’s reports of pain, restlessness, and facial grimacing indicated he was in extreme distress. Pt. was given 100mcg of IV fentanyl for pain and was taken to X-ray. X-ray images revealed the pt. has an open distal comminuted femur fracture of the right leg. Pt. reported that he has not received an up to date tetanus shot. The patient was taken to the OR and prepped for surgery, where he underwent an open reduction and internal fixation of the right femur. N.C.’s surgery was successful, and there are no new or worsening symptoms or concerns at this time. The pt. is awaiting discharge.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Open distal comminuted femur fracture of the right leg.

Secondary Diagnosis (if applicable): Tearing of the quad muscle.

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

The femur is the largest bone in the body and is, therefore, a highly vascular area. An open distal comminuted femur fracture is a complicated and painful injury that results from either blunt force trauma or weakened bones, as seen in old age (Medda & Halvorson, 2019). A comminuted fracture is a fracture in which the bone breaks into pieces or fragments. Fragments of the bone change position and become difficult to line up with a cast. The muscles surrounding the distal shaft of the femur are the hamstrings and quadriceps. Femur fractures resulting from high impact injuries to the distal thigh cause the surrounding muscles to shorten and contract. The lower extremity muscles shorten and contract, which causes the bone fragments to change

position (Medda & Halvorson, 2019). The distal femur serves as an attachment site for muscles and fascia of the lower extremities, and damage to this area causes a visible deformity to the leg and issues with leg extension and adduction (Medda & Halvorson, 2019).

The first stage of bone healing involves inflammation of localized tissue (Ghiasi, Chen, Vaziri, Rodriguez, and Nazarian, 2017). Following inflammation, a hematoma is formed at the site of the fracture, which disrupts blood flow. The lack of blood flow causes bone cell death. Skeletal and endothelial cells produce a layer of cartilage, which helps to bridge the gap between bone fragments (Ghiasi et al., 2017). Osteoclasts absorb the dead bone while osteoblasts generate new bone cells that replace the cartilage (Ghiasi et al., 2017).

Common symptoms of distal femur fractures include severe pain, inability to bear weight on the affected leg, obvious deformity of the leg, shortening of the affected leg, swelling, bruising, and tenderness to touch (Romeo, 2019). Vital signs will be increased due to the pain associated with a femoral fracture. X-rays and computed tomography scans (CT) scans are the diagnostic tests used to identify a femoral fracture. An x-ray was performed on N.C. upon arrival to the emergency department. The x-ray identified that the patient had a severely displaced fracture at the right distal shaft of the femur with multiple bony fragments. N.C. underwent surgery where an open reduction internal fixation (ORIF) was performed. Post-surgical treatment for a femoral fracture includes pain management, wound care, and physical therapy.

The specific fracture that N.C. sustained is challenging to treat because bone fragments change position and become difficult to line up with a cast. N.C. has an open fracture in which bone fragments stick out of the skin. Open fractures cause extensive damage to the surrounding muscles, tendons, and ligaments, which will increase the healing time and puts N.C. at an increased risk for developing an infection.

Pathophysiology References (2) (APA):

Ghiasi, M. S., Chen, J., Vaziri, A., Rodriguez, E. K., & Nazarian, A. (2017). Bone fracture healing in mechanobiological modeling: A review of principles and methods. *Bone Reports*, *6*, 87–100. doi: 10.1016/j.bonr.2017.03.002

Medda S, Halvorson J. Diaphyseal Femur Fracture. [Updated 2019 Apr 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2019 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK493169/

Romeo, N. M. (2019, February 2). Femur Injuries and Fractures Clinical Presentation: History, Physical, Causes. Retrieved from https://emedicine.medscape.com/article/90779-clinical.

Laboratory Data (15 points)

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	**4.40-5.80**	**4.65**	**n/a**	
Hgb	**13.0-16.5**	**14.3**	**10.5**	Pt. lost 450ml of blood during ORIF procedure (Hinkle, Brunner, Cheever, & Suddarth, 2014).
Hct	**38.0-50.0**	**42.0**	**29.7**	Pt. lost 450ml of blood during ORIF procedure (Hinkle, Brunner, Cheever, & Suddarth, 2014).
Platelets	**140-440**	**219**	**n/a**	
WBC	**4.0-12.0**	**11.20**	**n/a**	
Neutrophils	**1.40-5.30**	**7.30**	**n/a**	Neutrophils arrive rapidly at the site of

				tissue damage or an open wound. Increased neutrophil count is common in trauma-associated complications (Hinkle, Brunner, Cheever, & Suddarth, 2014).
Lymphocytes	**0.90-3.30**	**2.50**	**n/a**	
Monocytes	**0.10-0.90**	**0.90**	**n/a**	
Eosinophils	**0.00-0.50**	**0.40**	**n/a**	
Bands	**n/a**	**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-	**133-144**	**139**	**n/a**	
K+	**3.5-5.1**	**4.3**	**n/a**	
Cl-	**98-107**	**105**	**n/a**	
CO2	**21-31**	**27**	**n/a**	
Glucose	**70-99**	**98**	**n/a**	
BUN	**7-25**	**21**	**n/a**	
Creatinine	**0.50-1.20**	**1.19**	**n/a**	
Albumin	**3.5-5.7**	**4.3**	**n/a**	
Calcium	**8.6-10.3**	**9.3**	**n/a**	
Mag	**n/a**	**n/a**	**n/a**	
Phosphate	**n/a**	**n/a**	**n/a**	

Bilirubin	**n/a**	**n/a**	**n/a**	
Alk Phos	**34-104**	**40**	**n/a**	
AST	**10-40**	**n/a**	**n/a**	
ALT	**7-56**	**n/a**	**n/a**	
Amylase	**28-35**	**n/a**	**n/a**	
Lipase	**11-82**	**n/a**	**n/a**	
Lactic Acid	**0.5-2.0**	**n/a**	**n/a**	
Troponin	**0.0-0.4**	**n/a**	**n/a**	
CK-MB	**5-25**	**n/a**	**n/a**	
Total CK	**22-198**	**n/a**	**n/a**	

Other Tests 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
INR	**0.9-1.1**	**1.1**	**n/a**	
PT	**10.1-13.1**	**12.5**	**n/a**	
PTT	**25-36**	**27**	**n/a**	
D-Dimer	**<0.50**	**n/a**	**n/a**	
BNP	**0-100**	**n/a**	**n/a**	
HDL	**> 40**	**n/a**	**n/a**	
LDL	**< 100**	**n/a**	**n/a**	
Cholesterol	**125-200**	**n/a**	**n/a**	
Triglycerides	**< 150**	**n/a**	**n/a**	

Hgb A1c	**n/a**	**n/a**	**n/a**	
TSH	**n/a**	**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	**n/a**	**n/a**	**n/a**	
pH	**n/a**	**n/a**	**n/a**	
Specific Gravity	**n/a**	**n/a**	**n/a**	
Glucose	**n/a**	**n/a**	**n/a**	
Protein	**n/a**	**n/a**	**n/a**	
Ketones	**n/a**	**n/a**	**n/a**	
WBC	**n/a**	**n/a**	**n/a**	
RBC	**n/a**	**n/a**	**n/a**	
Leukoesterase	**n/a**	**n/a**	**n/a**	

Arterial Blood Gas 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
pH	**7.35-7.45**	**n/a**	**n/a**	
PaO2	**75-100**	**n/a**	**n/a**	
PaCO2	**35-45**	**n/a**	**n/a**	
HCO3	**22-26**	**n/a**	**n/a**	
SaO2	**94-100**	**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	Value on	Today's	Explanation of Findings

	Range	Admission	Value	
Urine Culture	**n/a**	**n/a**	**n/a**	
Blood Culture	**n/a**	**n/a**	**n/a**	
Sputum Culture	**n/a**	**n/a**	**n/a**	
Stool Culture	**n/a**	**n/a**	**n/a**	

Lab Correlations Reference (APA):

Hinkle, J. L., Brunner, L. S., Cheever, K. H., & Suddarth, D. S. (2014). *Brunner & Suddarths textbook of medical-surgical nursing* (14th). Philadelphia: Lippincott Williams & Wilkins.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): X-ray of the right femur showed a severely displaced and comminuted fracture of the distal shaft of the femur. Anterior displacement was noted, and free bony fragments were visible. No other fractures were noted in the x-ray. Imaging of the bone through x-rays is the most common way to evaluate a fracture (Hinkle, Brunner, Cheever, & Suddarth, 2014). X-rays provide clear images and can identify the location of the fracture, type of fracture, and can even identify the pathology of the fracture when needed (Hinkle, Brunner, Cheever, & Suddarth, 2014). Femur radiographs are most often used when there is a traumatic injury, or there is an obvious deformity of the leg (Hinkle, Brunner, Cheever, & Suddarth, 2014). An EKG was performed on the pt. before he underwent surgery. The EKG results were normal and the pt. was cleared for surgery.

Diagnostic Test Correlation (5 points): N.C. arrived at the emergency department with an obvious deformity to his right thigh from a traumatic, high-impact injury. As stated by Hinkle, Brunner, Cheever, & Suddarth, x-ray imaging is the most common diagnostic test used for individuals with an obvious deformity or who have been in a traumatic accident (2014). The x-ray identified that the patient had a distal comminuted fracture of the femur. The diagnostic test performed led to a diagnosis revealing the extent of the femur fracture and correlates to the patient's reports of 10/10 pain. An EKG was performed on the patient. The EKG results were normal and the patient was cleared and prepped for surgery. EKGs are often performed before any type of surgery (Hinkle, Brunner, Cheever, & Suddarth, 2014).

Diagnostic Test Reference (APA):

Hinkle, J. L., Brunner, L. S., Cheever, K. H., & Suddarth, D. S. (2014). *Brunner & Suddarths textbook of medical-surgical nursing* (14th). Philadelphia: Lippincott Williams & Wilkins.

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required):

The patient does not take any home medications and does not have any significant past medical history that would indicate the need for any home meds.

Brand/Generic	**n/a**				
Dose					

Frequency					
Route					
Classification					
Mechanism of Action					
Reason Client Taking					
Contraindications (2)					
Side Effects/Adverse Reactions (2)					
Nursing Considerations (2)					
Key Nursing Assessment(s)/Lab(s) Prior to Administration					
Client Teaching needs (2)					

Hospital Medications (5 required)

Brand/Generic	**cefazolin (Ancef)**	**hydromorphone (Dilaudid)**	**enoxaprin (Lovenox)**	**Hydrocodone-acetaminophen (NORCO)**	**ondanestron Zofran**
Dose	**2g in 200mL/hr**	**0.5-1mg**	**40mg**	**10-325mg**	**4mg**
Frequency	**Q8 hours**	**Q3 PRN**	**once daily**	**1-2 tablets**	**Q12**

				Q6	
Route	**IV infusion**	**IV injection**	**Sub Q injection**	**PO**	**IV injection**
Classification	**Antibiotic**	**Analgesic**	**Anticoagulant**	**Analgesic**	**Antiemetic**
Mechanism of Action	**Interferes with bacterial cell wall synthesis. It inhibits the linking of peptidoglycan strands. The bacterial cells then rupture and die.**	**It binds with opioid receptors in the spinal column and alters the perception and emotional response to pain.**	**Inactivation of activated x factor. inhibits clotting of blood and formation of fibrin.**	**Binds to and activates opiod receptors in certain regions of the brain and spinal cord to cause pain relief.**	**Blocks receptors at vagal nerve terminals in the intestine. Prevents serotonin release into the small intestine.**
Reason Client Taking	**Pt. is post op and has an open and gaping wound from femoral fracture.**	**Pain management**	**Pt. is at increased risk for thromboembolism.**	**Pain management**	**Client taking for nausea.**
Contraindications (2)	**Hypersensitivity to cefazolin, or a previous allergic reaction to other cephalosporin meds.**	**acute or severe bronchial asthma, GI obstruction, and severe respiratory depression.**	**Uncontrolled active bleeding, severe thrombocytopenia, and history of immune mediated heparin-induced thrombocytopenia.**	**Acute or severe bronchial asthma or if pt. has a known or suspected paralytic ileus.**	**Hypersensitivity to ondansetron and concurrent use of apomorphine.**
Side Effects/Adverse Reactions (2)	**Diarrhea and oral candidiasis**	**Nausea, vomiting, dizziness, constipatio**	**Anemia, thrombocytopenia, hemorrhag**	**Anxiety, fatigue, dizziness, constipatio**	**Agitation, anxiety, hypotension,**

		n, and hallucinations.	**e**	**n, and erectile dysfunction.**	**restlessness, and bronchospasm and pulmonary embolism**
Nursing Considerations (2)	**Frequently monitor for adverse reactions in pt.'s who have a penicillin allergy or impaired renal function. If possible, obtain a culture from the patient before giving the med.**	**Monitor patient closely for respiratory depression and apnea. Elderly patients are at an increased risk for adverse reactions. Administer as prescribed and before pain becomes intense.**	**Monitor for hemorrhage, thrombocytopenia, and bruising**	**This med should not be given to people with impaired consciousness. Use extreme caution when giving med to patients with COPD. Monitor all pt.s for respiratory depression.**	**Monitor vit k levels and electrolyte imbalances before administration of drug. For post op adults, drug must be administered undiluted intramuscularly or intravenously.**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Monitor for elevated BUN and Creatanine**	**BUN, creatanine, AST, ALT levels**	**Monitor PT, PTT, INR, platelet count**	**AST and ALT levels**	**AST and ALT lab levels.**
Client Teaching needs (2)	**Instruct client to report watery or bloody stools and instruct the patient to complete the prescribed course of therapy**	**Advise pt. to report symptoms of respiratory depression and adrenal insufficiency. Educate the pt. to take the drug**	**Monitor for bruising and bleeding, rotate injection sites if it taking at home, and avoid taking aspirin.**	**Instruct patient to take the drug exactly as prescribed. Instruct pt. to avoid alcohol consumption while taking this med.**	**Reassure patient with transient blindness that it will resolve within a few minutes to 48 hours. If**

	even if symptoms are relieved.	**exactly as prescribed.**			**oral, let it dissolve on the tongue before swallowing.**

Medications Reference (APA):

Jones & Bartlett Learning. (2019). *2019 Nurse's Drug Handbook* (Eighteenth ed.).

Burlington, MA: Jones & Bartlett Learning

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Pt. is A&O x 4 and is oriented to person, place, and time. Pt. follows commands well and is coherent and cooperative. Pt. appears to be well groomed, well nourished, and does not appear to be in any overt distress. The pt. is somewhat restless at times which is likely due to pain related to his femoral fracture.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:**	Pt.'s skin is warm, dry, and intact throughout. He is not diaphoretic and has good skin turgor. Pt. has a large open wound present on the right anterior thigh, just above the knee. 2 pressure dressings are in place, and a small amount of serosanguinous drainage is noted. Pt. has dark purple bruising at the site of impact. Erythema

Wounds: . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	and 1+ edema is present on the right lower extremity surrounding the wound and the skin is warm to touch. The pt. does not have any drains or rashes present. Patient has a braden score of 18.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Eyes are equal, round, and reactive and accommodate to light. Sclera is slightly injected. Conjunctiva is pink. Eyelids have pink undertones and appear dry and intact. No edema is present in the eyelids. There are no polyps present in the nasal cavity. Ears are symmetrical and temporal membrane is pearly gray. Gums appear slightly swollen with pink undertones in coloring. Lips have pink undertones and appear moist. Pt. has good dentition
CARDIOVASCULAR (2 points): **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:**	Heart has a normal rate and rhythm. Heart sounds are normal without the presence of arrhythmias, murmurs, gallops, or palpitations. Clear S1 and S2 upon auscultation. The pt. has strong peripheral pulses throughout (2+), and capillary refill is under 3 seconds. Neck vein distention is not present. Pt. has + 1 lower extremity edema of the right distal femur. Pt. tested negative for Homan's sign.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	Breath sounds are clear to auscultation bilaterally. Respirations are unlabored with regular pattern and depth. Pt. breaths without the use of accessory muscles and does not appear to be in respiratory distress
GASTROINTESTINAL (2 points): **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 ☐**	The pt.'s abdomen appears clean, dry, and intact, with slightly pink undertones. Bowel sounds are present and normoactive upon auscultation and the patient states he had a bowel movement one day prior to assessment on 10/06/2019. Pt. denies the presence of nausea, vomiting, or diarrhea. Pt. is 6'1," weighs 90.7kg, and has a BMI of 27.12. Pt. is on a regular diet both at home and in the hospital. The pt. does not have abdominal distention, incisions, scars, drains, or wounds noted on his abdomen. Pt. denies the presence of pain upon palpation or rebound tenderness.

Size: **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	Pt. uses a bedside urinal and has sufficient urine output of at least 30 mL/hr. Urine is slightly yellow in coloring. Pt. denies the presence of pain with urination and does not experience hesitancy or urinary retention. The pt.'s genitals appear clean, dry, and intact. The pt. does not have a catheter or undergo dialysis.
MUSCULOSKELETAL (2 points): **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☐**	Pt. has a general and purposeful motor response and has full range of motion throughout his upper extremities. Pt. follows commands well and has equal strength throughout upper extremities. Pt. has full ROM of his left lower extremity. Pt. has limited ROM and a musculoskeletal deformity of the right leg . Pt. has a right thigh wound associated with distal femoral fracture; pressure dressing is in place. Leg appears swollen and the pt. reports tenderness and bone pain of 4/10. Pt. is up with one person assist and uses crutches to ambulate. He is non-weight bearing on his right leg. Pt. has a fall score of 50. Pt. denies the presence of tingling, numbness, or burning of the right lower extremity but admits to feeling pressure and 4/10 pain. Pt.'s capillary refill is less than 3 seconds, skin is warm and pink around dressing, and there is localized 1+ edema at the site of the fracture. Skin is warm to touch and pulses are 2+ throughout. DTR 1+.
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:**	Pt. is A&O x 4 and is oriented to person, place, and time. Pt. follows commands and has purposeful and equal strength/motor response throughout upper extremities. Patient has limited ROM in his right lower extremities due to femoral fracture and surgical wound. Pt. has full ROM of left lower extremity Pt.'s speech is clear. Pupils are equal, round, and reactive and accommodate to light.

LOC:	
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	The pt. is a 60 y.o. caucasian male who sustained an injury while working at a recycling plant. Pt. stated he was retired but worked part-time at the plant because he enjoyed it. Pt. is a high school graduate and does not have any apparent barriers to learning. Pt. stated that he and his wife are practicing Christians. Pt. lives in a ranch style home with his wife and she is very supportive of him.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0730	**76**	**120/71**	**18**	**99.7 (oral)**	**98%**
1130	**72**	**132/82**	**17**	**99.7 (oral)**	**98%**

Vital Sign Trends: The pt.'s temperature was slightly elevated throughout the day, but this can be considered an expected finding due to being two days post-op. The pt.'s blood pressure from the second set of vitals is slightly elevated and may be related to the patient's reports of pain.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	**numeric**	**right leg**	**5/10**	**consistent, dull, aching, and sore**	**pt. given pain meds as prescribed**
1130	**numeric**	**right leg**	**4/10**	**consistent, dull, aching, and sore.**	**pt. given pain meds as prescribed.**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock

Size of IV:18 gauge **Location of IV: left arm median vein** **Date on IV:10/04/19** **Patency of IV:patent and flushes** **Signs of erythema, drainage, etc.:none** **IV dressing assessment:clean, dry, intact.**	dextrose 5% and 0.9% sodium chloride with KCI 20 mEq/L flow rate = 100mL/hr The pt. has an 18 gauge single lumen peripheral IV line dated 10/04/19. It was placed in the median vein on the underside of the arm. Pt. denies pain at the IV site and is patent, stable, and flushes easily. There is no presence of erythema, swelling or drainage. IV is a saline lock.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
360mL PO intake **400mL IV intake**	**450 mL urine output**

Nursing Care

Summary of Care (2 points)

Overview of care: The pt. was A&O x 4 and ambulated well with his crutches. The patient remained on the floor throughout the entire day and his vital signs were stable. The patient was given pain medication and antibiotics as prescribed by the provider. Throughout the shift the pt. complained of pain in his right lower extremity but appeared to be coping with the pain well. Is non-weight bearing on his right leg and ambulates well with his crutches. He is tolerating a regular diet. Nursing interventions for the patient throughout the shift included administering medication, emptying the bedside urinal, and measuring his input and output. The pt. reported his pain to be 4/10 and appeared to be coping with his injury well. The pt. stated he is eager to start going to physical therapy. The pt. was being discharged on the day of the assessment and planned to live at home with his wife and go to physical therapy every day. Pt. states he does not need assistance from home health care. He states he has a good support system at home with his wife and his children.

Procedures/testing done: The patient underwent irrigation and debridement of open distal femur fracture as well as an open reduction, internal fixation, of the right distal femur and quadricep muscle repair.

Complaints/Issues: Pain related to distal femoral fracture.

Vital signs (stable/unstable): stable

Tolerating diet, activity, etc.: Pt. is ambulating well with his crutches.

Physician notifications:n/a

Future plans for patient: Pt. plans to go home and continue to receive physical therapy for his right leg.

Discharge Planning (2 points)

Discharge location: The pt. was scheduled to be discharged on the day of the assessment. Upon discharge the pt. plans to return to his home where he lives with his wife. The pt. lives in a ranch style home and plans to continue going to physical therapy. Pt.'s wife and children are supportive and willing to help the pt.

Home health needs (if applicable): Pt. states that he does not require the help of home health at discharge.

Equipment needs (if applicable): The pt. uses crutches to ambulate. He owns crutches from an ankle injury he sustained in 2004. The pt.'s wife bought him a shower chair for him to sit in.

Follow up plan: Pt. needs to continue to go to physical therapy and follow up with his provider to monitor his progress. Pt. will return to have staples removed and monitor wound healing prgress.

Education needs: Physical therapy educated the pt. on how to properly ambulate and exercises he can to do promote healing. Pt. and his wife were educated on proper wound care and pertinent signs and symptoms or adverse effects they should report to the provider. Pt. educated on continuing antibiotics even if symptoms subside. Pt. also educated on pain management and dealing with pain before it becomes unbearable.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

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. Acute pain related to movement of bone fragments, edema, and injury to soft tissue, as evidenced by pt. reports of pain and guarding and protective behavior.	Severe pain is an expected finding in clients with femoral fractures. Intense pain is due to the size and structure of the femur. The pt.'s reports of pain can help the nurse propose appropriate nursing interventions. Continuing pain may indicate neurovascular issues.	1. Assess the type, location, and characteristics of the pt.'s pain frequently. Assess for nonverbal cues, the Wong Baker FACES scale, vital signs, and the numeric pain scale. Identify aggravating and alleviating factors 2. Provide pain medication before activities and ambulation.	- The RN conducted frequent assessments of the patient's pain and vital signs. The client reported characteristics of his pain such as "dull," "aching," and "sore." The pt. noted that elevating his leg was an alleviating factor and his pain had improved. - Pt. was given pain medication before ambulating with the charge nurse and reported that his pain was tolerable and a 3/10.

2. Risk for neurovascular dysfunction related to vascular damage, tissue trauma, and excessive edema as evidenced by weak peripheral pulse, skin pallor, cyanosis, cool and clammy skin, numbness, tingling, and delayed capillary refill.	Neurovascular dysfunction results in a lack of tissue perfusion, which can lead to ischemia and eventually tissue death.	1.Conducting frequent neurovascular assessments and monitoring for capillary return, skin color, temperature, and peripheral pulses. **2.** Assess the entire length of the injured extremity for edema. Measure the injured extremity and compare it to the uninjured extremity	- Peripheral pulses were palpable throughout, skin is pink, warm, and dry. Pt will report normal sensation and a capillary refill of less than 3 seconds. - Pt. had localized +1 edema of the affected extremity. As the pt. ambulated throughout the day the swelling of the affected extremity went down. Increased swelling throughout the day may be indicative of hemorrhage or inadequate tissue perfusion.
3. Risk for infection related to open fracture wound as evidenced by diaphoresis, increased temperature and vital signs, and elevated WBC labs.	The pt. has an open wound and is at an increased risk for being invaded by pathogenic organisms. Infection can delay or inhibit wound and bone healing completely. The entire body system can be affected.	**1.**Assess open fracture wound site and skin noting reports of increased pain, burning sensation, presence of edema, erythema, foul odor, or excess drainage. **2**.Assess muscle tone rigidity, reflexes, and difficulty speaking. Development of these symptoms may be indicative of tetanus.	- Wound care and assessment was performed and pt. reported decreased sensation of pain and denied the presence of burning. +1 localized edema was present in the am but decreased as the pt ambulated throughout the day. Slight erythema was noted around the wound. Small amount of

			drainage was noted. - Pt. spoke clearly and 2+DTR were present. Pt. did not have any overt muscle rigidity. Goal was met and tetanus infection is no longer a concern.
4. Risk for thromboembolism related to inactivity and femoral vein changes as evidenced by unilateral edema, leg warmth, and positive Homan's sign.	Damage to the femoral veins, surgery, and inactivity puts the patient at risk for developing a thromboembolism.If left untreated or undetected, embolisms can travel and lodge in the lungs or brain resulting in severe injury or death.	**1.**Assess the pt. for a positive Homan's sign in both the injured and uninjured leg. **2.** Encourage the patient to ambulate frequently. Encourage the pt. to wear SCDs at rest.	- Pt. had a negative Homann's sign in both the injured and uninjured leg. - Pt. ambulated every two hours and was compliant with wearing SCDs when at rest.

5. Risk for injury related to loss of skeletal integrity and impaired mobility as evidenced by limited range of motion, decreased muscle strength, and patient reports of pain in the injured leg.	The patient is at an increased risk for falling due to loss of skeletal integrity, pain, and limited range of motion due to muscle damage. If the patient falls it can cause further damage to the injured extremity as well as other body systems.	**1.**Maintain limb rest as indicated by supporting the knee joint and areas above and below the fracture site. 2. Assess the degree of immobility produced by the injury and note the patient's perception of immobility.	- Pt. was compliant with the plan of care and pillows were placed above and below the fracture site. Pt. was compliant and kept his legs straight when ambulating. - Pt.'s perception of physical limitations is

			not exaggerated. He understands his limitations and is compliant with the plan of care.

Other References (APA): n/a

Concept Map (20 Points):Concept map attached.

Subjective Data

Nursing Diagnosis/Outcomes

Objective Data

Nursing Interventions

Patient Information