

N311 Care Plan 1

Lakeview College of Nursing

Lauren McClain

Demographics (5 points)

Date of Admission 10/14/2020	Patient Initials L.P.	Age 72	Gender Female
Race/Ethnicity Caucasian	Occupation Retired	Marital Status Widowed	Allergies None
Code Status Full Code	Height 5'8 (69")	Weight 141lbs	

Medical History (5 Points)

Past Medical History: The patient suffered with anxiety, has arthritis, and wears glasses. In 2019, she was diagnosed with breast cancer in her right breast and she also had bladder cancer the same time she was diagnosed with breast cancer.

Past Surgical History: In 2020, she had bladder surgery to remove the mass going on her bladder and she had a partial mastectomy on her right breast. She also had a breast biopsy.

Family History: No known family history on file.

Social History (tobacco/alcohol/drugs): Does not and has never smoked. Drinks alcohol but it is very rare when she does and is typically a glass of wine. She does not use drugs.

Admission Assessment

Chief Complaint (2 points): Her daughter brought her in due to pain in her right knee and she stated that Lois was confused.

History of present Illness (10 points): Onset: She stated that she began feeling pain in her knee Tuesday morning. **Location:** Right knee **Duration:** Patient states that when she woke up Tuesday morning is when it first started and has been a continuous pain since that day.

Characteristics: She stated that her pain on a numeric pain scale was about an 8 out of 10. With the pain, the knee and mostly the entire right leg is swollen and is very red. She stated that the pain is like a stabbing/ piercing pain. **Aggravating Factors:** She said, "It hurts to bend the knee

and to put any pressure/ weight on that leg.” She said anything that touches the crease of the knee directly makes the pain worse. **Relieving Factors:** She noticed that when something is on the side of her leg, slightly elevating it, helps relieve most of the pain. **Treatment:** Patient has also been taking Tylenol and/ or Aspirin to help alleviate some of the pain.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Cellulitis

Secondary Diagnosis (if applicable): Edema

Pathophysiology of the Disease, APA format (20 points): **Definition:** Cellulitis is a spreading infection of the dermis or subcutaneous layer of the skin. When cellulitis spreads, fever, erythema, and lymphangitis may occur. When the offending organism takes over a compromised area, it signals the defensive cells (neutrophils, eosinophils, basophils cells) that normally contain and localize inflammation and cellular debris accumulates. As cellulitis progresses, the organism attacks the tissue around the original infected area. **Risk/Age factor:** Cellulitis is more likely to develop in older adults, usually in the lower extremities. Having cracks or peeling skin between the toes or an injury or trauma with a break in the skin are common risk factors for cellulitis. Also, the use of corticosteroid medications or other medicines that suppress the immune system. **Causes:** Cellulitis is caused by bacterial infections, commonly with streptococcus or staphylococcus. **Signs and Symptoms:** The most common signs of cellulitis are erythema which is reddening of the skin/ infected area and edema due to the inflammatory response. The patient will also pain at the site of infection and the surrounding area. They also will have a fever and the infected area will be warm to the touch. **Diagnostic Tests:** To determine if someone has cellulitis, you will need to get a white blood cell count, an erythrocyte sedimentation rate test (testing the rate of how fast red blood cells fall to the bottom of a test

tube. The faster they stick together, and sink is a sign of inflammation). They could also order a gram stain and culture of fluid from the abscesses and bulla. Lastly, touch preparation which the skin lesion specimen touched to a microscopic slide and the application of KOH which will show yeast and mycelial forms of fungus. **Treatment:** Once the patient is confirmed for having cellulitis, they can take oral or IV penicillin, but if the patient is allergic to penicillin, an antifungal medication works as well. To prevent/ relieve pain, warm soaks are recommended, and they help decrease edema by increasing vasodilation. Pain medication given as needed and elevate the infected extremity (*Lippincott*).

Definition: An edema occurs when excessive fluid accumulates in the tissue causing palpable swelling. Formed by an alteration in capillary hemodynamics which favors the movement of fluid from the vascular space of the interstitium and the retention of dietary sodium and water by the kidneys. **Causes:** For generalized edema it's commonly caused by heart or liver failure or kidney disorders. For localized edema it's commonly caused by DVT or another venous disorders or obstructions, infections, angioedema, or a lymphatic obstruction. **Risk Factors:** Common risk factors for edema is prolonged sitting and/or standing, excessive sodium consumption and if you have cellulitis. **Signs and Symptoms:** Typically, a sudden onset, with significant pain, shortness, of breath, fever, unilateral swelling in the leg with tenderness.

Diagnostic Testing: Testing for edema should include a complete blood count, serum electrolytes, blood urea nitrogen, creatinine, liver tests, and other tests if you know the possible suspected cause. **Treatment:** If the edema is caused from sodium retention, you would put them a dietary restriction, limiting the intake of sodium. Making sure they regularly exercise, providing protection to the affected area and moisturizing frequently. Wearing compression socks or gloves and keeping the area above heart level throughout the day.

Pathophysiology References (2) (APA):

Lippincott Williams & Wilkins. (2003). Cellulitis. *Advances in Skin & Wound Care*.

<https://journals.lww.com/aswcjournal/fulltext/2003/07000/cellulitis.15.aspx>

Thompson, D., A. (2020). Edema. *Merck Manual Professional Version*.

<https://www.merckmanuals.com/professional/cardiovascular-disorders/symptoms-of-cardiovascular-disorders/edema>

WoundSource Editors. (2019). Edema: common risk factors and complications. *WoundSource*.

<https://www.woundsource.com/blog/edema-common-risk-factors-and-complications>

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	3.90-4.98	3.92	N/A	
Hgb	12.0-15.5	12.1	N/A	
Hct	35-45%	36.1%	N/A	
Platelets	140-400	104	N/A	Since she had cancer and took chemo pills, these typically cause thrombocytopenia (NIH).
WBC	4.0-9.0	8.0%	N/A	
Neutrophils	40-70%	86.2%	N/A	Typically, neutrophils high if there is an infection since they help resolve infections (Huizen).
Lymphocytes	10-20%	5.5%	N/A	
Monocytes	2-8%	7.5%	N/A	
Eosinophils	0-4%	0.0%	N/A	
Bands		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-	135-145	128	N/A	Low sodium levels are caused by the intake of too much fluid (<i>Lewis, III</i>).
K+	3.5-5.1	3.3	N/A	Typically, low potassium is caused from vomiting, diarrhea, diuretics (<i>Lewis, III</i>).
Cl-	98-107	90	N/A	Low chloride levels could be caused from kidney problems. Or if the patient is taking diuretics (<i>Seladi-Schulman</i>).
CO2	21.0-32.0	31.0	N/A	
Glucose	74-106	104	N/A	
BUN	7-18	17	N/A	
Creatinine	0.55-1.02	0.89	N/A	
Albumin	3.4-5.0	3.2	N/A	Low albumin is from not eating a well-balanced diet, typically not enough protein (<i>Jewell</i>).
Calcium	8.5-10.1	8.8	N/A	
Mag	1.7-2.2	N/A	N/A	
Phosphate	2.5-4.5	N/A	N/A	
Bilirubin	0.2-1.0	0.7	N/A	
Alk Phos	45-117	103	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		Light	N/A	

		Yellow: transparent		
pH	5.0-9.0	6	N/A	
Specific Gravity	1.003-1.031	1.021	N/A	
Glucose	Normal	Normal	N/A	
Protein	Negative	2+(A)	N/A	High protein is a sign of infection. Any abnormalities in urine is typically a sign of a urinary tract infection (AACC).
Ketones	Negative	Trace A	N/A	This means it's beginning to buildup, and fluids should be started. Also, the doctor should check blood sugar levels (AACC).
WBC	0-5	10-20	N/A	Increased WBCs are indicating that there is a possible infection (AACC).
RBC	0-5	5-10	N/A	High RBCs count means that there is blood in urine, which is common with UTIs (AACC).
Leukoesterase	Negative	1+(A)	N/A	Looking WBCs, since she has WBCs and a high level it is a sign of infection (AACC).

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	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):

AACC. (2020). Urinalysis. *Lab Test Online*. <https://labtestsonline.org/tests/urinalysis>

Huizen, J. (2020). What are neutrophils and what do they do? *Medical News Today*.

<https://www.medicalnewstoday.com/articles/323982>

Jewell, T. (2018). What is Hypoalbuminemia and how is it treated? *Healthline*.

<https://www.healthline.com/health/hypoalbuminemia>

Lewis, III, L., J. (2020). Hypokalemia. *Merck Manual: Consumer Version*.

<https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/electrolyte-balance/hypokalemia-low-level-of-potassium-in-the-blood>

Lewis, III, L., J. (2020). Hyponatremia. *Merck Manual: Consumer Version*.

<https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/electrolyte-balance/hyponatremia-low-level-of-sodium-in-the-blood>

Seladi-Schulman, J. (2018). Hypocholremia: What is it and how is it treated? *Healthline*. [https://](https://www.merckmanuals.com/home/hormonal-and-metabolic-disorders/electrolyte-balance/hypokalemia-low-level-of-potassium-in-the-blood)

www.merckmanuals.com/home/hormonal-and-metabolic-disorders/electrolyte-balance/hypokalemia-low-level-of-potassium-in-the-blood

Thrombocytopenia. *NIH*. <https://www.nhlbi.nih.gov/health-topics/thrombocytopenia>

Diagnostic Imaging

All Other Diagnostic Tests (10 points): She received a chest, abdominal, and pelvic CT scan.

For the chest, they noted 5.5cm of fluid in her right breast and skin thickening of the right breast as well. Everything else taken during this scan came back normal and no problems were found.

She had a portable chest x-ray and her lungs were clear of fluid, everything showed up normal.

Lastly, she had a head CT, and everything showed up normal, no problems.

**Current Medications (10 points, 2 points per completed med)
*5 different medications must be completed***

Medications (5 required)

Brand/Generic	Ceftriaxone	Aspirin	Lactobacillus	Acetaminophen	Morphine
Dose	2g: 100mL	81mg	1 packet	650mg	2mg
Frequency	Every 24hrs	Daily	Daily	Every 6hrs	Every 6hrs (as needed)
Route	Intravenous	Oral	Oral	Oral	Intravenous
Classification	Antibiotic	NSAID (anti-inflammatory)	Probiotic	Antipyretic, nonopioid analgesic	Opioid analgesic
Mechanism of Action	Interferes with bacterial cell wall synthesis by inhibiting the final step in the cross-linking of peptidoglycan strands.	Blocks the activity of cyclooxygenase, the enzyme for prostaglandin synthesis. Prostaglandins, important for mediators in the inflammatory response.	Colonizers of the bowel and work by inhibiting or decreasing the growth of harmful microorganisms in the gut by producing lactic acid	Inhibits the enzyme cyclooxygenase, blocking prostaglandin and interfering with pain impulse generation. Acts directly on temp-regulating center.	Binds with and activates opioid receptors in brain and spinal cord to produce analgesia
Reason Client Taking	Unknown	Pain	Unknown	Knee pain	Chest pain
Contraindications (2)	Hypersensitivity to cefuroxime, other cephalosporins, or their other components	Active bleeding or coagulation disorders; breastfeeding; current GI bleed or ulcers	Immunosuppressed patients and patients with GI wall perforation	Hypersensitivity to acetaminophen Severe hepatic impairment	Acute or severe bronchial asthma in an unmonitored setting; respiratory depressions
Side Effects/Adverse Reactions (2)	CNS: chills, fevers, headache CV: edema	CNS: confusion, CNS depression EENT: hearing loss, tinnitus	N/A	CNS: Agitation, anxiety EENT: stridor	CNS: coma, amnesia, chills EENT: blurred vision, hiccup

Medications Reference (APA): Jones and Bartlett Learning. (2020). *2020 Nurse's Drug Handbook*.

Assessment

Physical Exam (18 points)

GENERAL: Alertness: Orientation: Distress: Overall appearance:	Very alert; when admitted she couldn't remember the year or the president, but on October 15, she was aware of the year and president. She showed no signs of distress. Her overall appearance was well kept/ groomed.
INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: Braden Score: Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:	Skin color was normal (redness on right breast) Skin is warm and dry Temp:98.0 Turgor: normal, good elasticity No rashes and no bruises No wounds Braden score: 20
HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:	Head/neck: normal and symmetric; neck had normal range of motion Ears: External and internal ears normal Eyes: Pupils equal round and reactive to light; no discharge coming out Nose: normal, no swollen polyps Teeth: Clean teeth, a few cavities
CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Location of Edema:	Normal rate, regular rhythm, and normal heart sounds No murmurs N/A Peripheral pulse: normal Capillary refill: normal Edema located on her right
RESPIRATORY:	Breath sounds are normal, no stridor or

<p>Accessory muscle use: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Breath Sounds: Location, character</p>	<p>wheezes.</p>
<p>GASTROINTESTINAL:</p> <p>Diet at home:</p> <p>Current Diet</p> <p>Height:</p> <p>Weight:</p> <p>Auscultation Bowel sounds:</p> <p>Last BM:</p> <p>Palpation: Pain, Mass etc.:</p> <p>Inspection:</p> <p> Distention:</p> <p> Incisions:</p> <p> Scars:</p> <p> Drains:</p> <p> Wounds:</p> <p>Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p> Size:</p> <p>Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p> Type:</p>	<p>At home rarely eats meat; at the hospital was a regular diet</p> <p>5'8; 141lbs</p> <p>Bowel sounds were normal</p> <p>October 14</p> <p>No abdominal tenderness</p> <p>No distention, incisions, drains, or wounds</p> <p>Small scar from her bladder surgery</p>
<p>GENITOURINARY:</p> <p>Color:</p> <p>Character:</p> <p>Quantity of urine:</p> <p>Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Inspection of genitals:</p> <p>Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p> Type:</p> <p> Size:</p>	<p>Light yellow; normal</p> <p>500mL</p> <p>Genitals were normal</p>
<p>MUSCULOSKELETAL:</p> <p>Neurovascular status:</p> <p>ROM:</p> <p>Supportive devices:</p> <p>Strength:</p> <p>ADL Assistance: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Fall Risk: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Fall Score:</p> <p>Activity/Mobility Status:</p> <p>Independent (up ad lib) <input type="checkbox"/></p> <p>Needs assistance with equipment <input checked="" type="checkbox"/></p> <p>Needs support to stand and walk <input checked="" type="checkbox"/></p>	<p>ROM: minimal with right leg since it is swollen but can move and walk to the bathroom with assistance with a gait belt and walker</p> <p>Strength is fine, just too painful to stand/ move right leg</p>

<p>NEUROLOGICAL: MAEW: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Mental Status: Speech: Sensory: LOC:</p>	<p>Has trouble moving/ bending right knee since it is swollen but can move everything else fine. Orientation: very oriented Mental status is normal Speech is normal Sensory is normal No loss of consciousness</p>
<p>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):</p>	<p>Coping methods: N/A Developmental level is normal for her age Christian occasionally goes to church Very close to her children and grandchildren</p>

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
8:00	97	130/80	16	98.0	99

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
8:30	Wong-Baker	Right knee	8	Continuous sharp pains	Tylenol

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
250mL (IV)	500mL

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis

<p>Nursing Diagnosis</p> <ul style="list-style-type: none"> • Include full nursing diagnosis with “related to” and “as evidenced by” components 	<p>Rational</p> <ul style="list-style-type: none"> • Explain why the nursing diagnosis was chosen 	<p>Intervention (2 per dx)</p>	<p>Evaluation</p> <ul style="list-style-type: none"> • How did the patient/family respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
<p>1. Impaired skin integrity related to bacterial infection as evidenced by the swelling in the right knee.</p>	<p>Due to the bacteria growing in her right knee it’s causing her skin to be red and irritated</p>	<p>1. Providing antibiotics to kill the bacteria 2. Monitoring the growth of the bacteria daily</p>	<p>The patient and her daughter responded fine to the nurse’s actions She was fine with the status of the goals and outcomes since her stay is only 2 days</p>
<p>2. Impaired walking related to the swelling in her right knee as evidenced by the patient stating, “it hurts to walk.”</p>	<p>Due to the welling the patient had trouble walking and putting weight on her right leg</p>	<p>1. Keeping her leg slightly elevated to reduce pressure ulcers 2. Walking around the room if possible to keep the muscles strengthen</p>	<p>She was ok with the nurse’s actions. Once the swelling and pain is manageable, she will be able to be discharged, which she was ok with.</p>

Other References (APA):

Concept Map (20 Points):

Subjective Data

Nursing Diagnosis/Outcomes

- Impaired skin integrity related to bacterial infection as evidenced by swelling and redness on the right knee. Patient states "My knee hurts very badly. And that her pain is an 8 out of 10 in the morning to a 4 out of 10 by the afternoon. This goal was met."
 - o Goal: We wanted her pain to go from an 8 out of 10 in the morning to a 4 out of 10 by the afternoon. This goal was met.
- Impaired walking related to the swelling in her right knee as evidenced by the patient stating, "it hurts to walk."
 - o Goal: After her pain went down we wanted her to be able to move around, so the muscle wouldn't become weak. We were able to get her to "walk" to the toilet with the assistance of a walker and the PT. But this caused her knee to become more agitated.

Objective Data

Patient Information

Nursing Interventions

1. Administer pain medications as needed: either morphine if the pain becomes unbearable or Tylenol if she doesn't want anything too strong.
 2. Keep her knee slightly elevated on a pillow with an edema pillow.
 3. Making sure she gets up and walks around for a little to make sure her muscles do not weaken.
- Patient's diagnoses was cellulitis with an edema pillow. In 2020 she had bladder surgery and a part of her bladder where the mass was removed. She also had a partial mastectomy on her right breast. She has been taking oral chemo right up until about two weeks ago. She has swelling and her knee is red and hot to the touch.



