

N321 Care Plan #1

Lakeview College of Nursing

Cidney Hinchman

**Demographics (3 points)**

|  |                                 |                                  |  |
|--|---------------------------------|----------------------------------|--|
| <b>Date of Admission</b><br>09-08-2020 | <b>Patient Initials</b><br>S.O. | <b>Age</b><br>66                 | <b>Gender</b><br>Female  |
| <b>Race/Ethnicity</b><br>Caucasian     | <b>Occupation</b><br>Disability | <b>Marital Status</b><br>Married | <b>Allergies</b><br>Adhesive tape, codeine,<br>Tylenol-codeine |
| <b>Code Status</b><br>DNR              | <b>Height</b><br>5'9"           | <b>Weight</b><br>325lbs          |  |

**Medical History (5 Points)**

**Past Medical History:** Patient has a past medical history of uncontrolled type 2 diabetes mellitus, chronic obstructive lung disease, hyponatremia, sepsis, open wound of lower limb, closed fracture of metatarsal bone, chronic obstructive kidney disease stage 3, obesity, hyperosmolar non-ketotic state in type 2 diabetes mellitus, cellulitis, neuropathy, hypertension, edema of the lower extremity.

**Past Surgical History:** Patient has had carpal tunnel surgery bilaterally, two cesarean sections, foot/toes surgery procedure on 08/24/2020, tubal ligation, and an angiocardiology of the left heart on 01/03/2020.

**Family History:** The patient's mother and father had diabetes mellitus.

**Social History (tobacco/alcohol/drugs):** Patient reports that she began smoking at the age of 30 and stated, "I smoke about one pack of cigarettes a day." Patient reports no history of drug or alcohol abuse.

**Assistive Devices:** Patient uses a walker to ambulate.

**Living Situation:** Patient stated that she lives with her husband.

**Education Level:** Patient received a high school diploma.

### **Admission Assessment**

**Chief Complaint (2 points):** Patient came into the emergency department with complaint of left leg pain from the ankle and the lower leg.

**History of present Illness (10 points): Onset:** On September 8th, a 66 y/o white, married, female, came into the emergency department at Iroquois Memorial Hospital and was admitted later that night for uncontrolled type two diabetes mellitus and cellulitis of the lower limb.

**Location:** Patient is experiencing swelling, warmth, tenderness, and pain in the left lower leg due to the cellulitis. Patient is also experiencing pain in her lower left leg and around the ankle due to a chronic wound. **Duration:** The patient started experiencing pain in her left lower extremity the day she came to the emergency department. The patient stated, "I have not been taking my insulin for more than two weeks." **Characteristics:** The patient stated, "it hurts when I put pressure on my left leg". The patient rated her pain a 6 on a scale of one to ten. **Associated Manifestations:** The patient did not state any associated manifestations. **Relieving factors:** The patient took acetaminophen to help relieve the pain. **Treatment:** Patient has previously had foot/toe surgery for her left foot on August 24<sup>th</sup>, 2020.

### **Primary Diagnosis**

**Primary Diagnosis on Admission (2 points):** Uncontrolled Type 2 Diabetes Mellitus

**Secondary Diagnosis (if applicable):** Cellulitis of the lower limb

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

Type 2 diabetes mellitus is a chronic condition in which it affects the way our bodies metabolize sugar also known as glucose (Mayo Clinic, 2020). Glucose is a sugar in which we get our main source of energy from for our cells that make up our muscles and other tissues (Mayo Clinic, 2020). When you have type 2 diabetes your body will either resist the effects of insulin or not produce enough insulin to keep your glucose levels at the normal range of 70-100 mg/dL (Mayo Clinic, 2020). Insulin is a hormone that comes from your pancreas (Mayo Clinic, 2020). Your pancreas will try making more insulin to try to get the cells to respond, but after awhile your

pancreas is no longer going to be able to keep up causing you to go into prediabetes and type 2 diabetes (Centers for Disease Control and Prevention, 2019).

Type 2 diabetes can take many years to develop and a lot of people can go for a long time without any noticeable symptoms (Centers for Disease Control and Prevention, 2019). Some signs and symptoms of type 2 diabetes mellitus include increased thirst, frequent urination, increased hunger, unintended weight loss, fatigue, blurred vision, slow-healing sores, frequent infections, and areas of darkened skin usually in the armpits and neck (Mayo Clinic, 2020).

Some risk factors that can increase your risk for developing type 2 diabetes mellitus include weight, fat distribution, inactivity, family history, race, ethnicity, age, prediabetes, gestational diabetes, polycystic ovarian syndrome, and areas of darkened skin usually in the armpits and neck (Mayo Clinic, 2020). Type 2 diabetes is easily ignored but can affect many major organs such as your heart, blood vessels, nerves, eyes, and kidneys (Mayo Clinic, 2020). By eating a nutritional balanced diet, you can help control your blood glucose levels to help prevent further complications (Mayo Clinic, 2020). Some of these complications include heart and blood vessel disease, nerve damage (neuropathy), kidney damage, eye damage, slow healing, hearing impairment, skin conditions, sleep apnea, and Alzheimer's disease (Mayo Clinic, 2020). My patient did not take care of herself. My patient was severely obese, had a long history of smoking cigarettes, did not exercise, did not eat a well-balanced diet, and was an older adult. Therefore, it led to her developing further complications such as chronic kidney disease, neuropathy, and slow healing.

Type 2 diabetes is preventable by choosing to live a healthy lifestyle (Mayo Clinic, 2020). A healthy lifestyle can include eating healthy foods, getting active, losing weight, and avoiding being sedentary for long periods (Mayo Clinic, 2020). You may also take medication such as metformin to reduce the risk of type 2 diabetes, but even with medications a healthy lifestyle is crucial for preventing or managing diabetes (Mayo Clinic, 2020).

Type 2 diabetes can be diagnosed with a couple of different tests such as glycated hemoglobin (A1C) test, random blood sugar test, fasting blood sugar test, and an oral glucose tolerance test (Mayo Clinic, 2020). If diagnosed with type 2 diabetes treatment can include weight loss, healthy eating, regular exercise, possibly diabetes medication or insulin therapy, and blood sugar monitoring (Mayo Clinic, 2020). My patient takes daily insulin and has severe uncontrolled diabetes because she does not take her insulin as directed and does not eat or exercise appropriately.

### **Pathophysiology References (2) (APA):**

Centers for Disease Control and Prevention. (2019, May 30). *Type 2 Diabetes*. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/basics/type2.html>

Mayo Clinic. (2020c, August 26). *Type 2 diabetes - Symptoms and causes*.

<https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/symptoms-causes/syc-20351193>

**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  |
|--------------------|---------------------------------------|-------------------------------|-------------------------------|--|
| <b>RBC</b>         | 4-5.5 million cells                   | 3.57 million cells            | 3.56 million cells            | RBCs are decreased primarily from anemia caused by the patient's chronic kidney disease (Capriotti & Frizzell, 2016).  |
| <b>Hgb</b>         | 12-15g/dL                             | 9.6 g/dL                      | 9.5 g/dL                      | Hgb is decreased primarily from anemia caused by the patient's chronic kidney disease (Capriotti & Frizzell, 2016).  |
| <b>Hct</b>         | 42% to 52%                            | 30.8%                         | 30.6%                         | These values are consistent with a low number of red blood cells from anemia caused by the patient's chronic kidney disease (Capriotti & Frizzell, 2016).    |
| <b>Platelets</b>   | 150,000-400,000 cells/mm <sup>3</sup> | 232,000 cells/mm <sup>3</sup> | 221,000 cells/mm <sup>3</sup> |  |
| <b>WBC</b>         | 4,500-11,000 cells/mm <sup>3</sup>    | 15.8 cells/mm <sup>3</sup>    | 15.8 cells/mm <sup>3</sup>    | WBCs are elevated due to some sort of infection possibly MRSA from the patient's opened pressure ulcer (Capriotti & Frizzell, 2016).                         |
| <b>Neutrophils</b> | 45% to 75%                            | 71.8%                         | 70.4%                         |  |
| <b>Lymphocytes</b> | 20% to 40%                            | 16%                           | 17.2%                         | These values are consistent with a high number of white blood cells indicating that the patient has an infection in their body (Capriotti & Frizzell, 2016). |
| <b>Monocytes</b>   | 4% to 6%                              | 10.7%                         | 10.3%                         | These values are consistent with a high number of white blood cells indicating that the patient has an infection in their body (Capriotti & Frizzell, 2016). |

|                    |              |       |       |  |
|--------------------|--------------|-------|-------|--|
| <b>Eosinophils</b> | Less than 7% | 1.1%  | 1.5%  |  |
| <b>Bands</b>       | 0.0%-1.0%    | 0.03% | 0.04% |  |

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

| <b>Lab</b>        | <b>Normal Range</b> | <b>Admission Value</b> | <b>Today's Value</b> | <b>Reason For Abnormal</b>   |
|-------------------|---------------------|------------------------|----------------------|--|
| <b>Na-</b>        | 135-145 mEq/L       | 129 mEq/L              | 135 mEq/L            | Sodium is decreased due to dehydration (Capriotti & Frizzell, 2016).   |
| <b>K+</b>         | 3.5-5.0 mEq/L       | 3.4 mEq/L              | 3.5 mEq/L            | Potassium is decreased due to chronic kidney disease and diuretic medication (Capriotti & Frizzell, 2016).                               |
| <b>Cl-</b>        | 98-108 mEq/L        | 92 mEq/L               | 98 mEq/L             | Decreased levels can be caused from the patient's chronic lung disorder (Capriotti & Frizzell, 2016).                                    |
| <b>CO2</b>        | 22-29 mEq/L         | 26 mEq/L               | 24 mEq/L             |  |
| <b>Glucose</b>    | 70-100 mg/dL        | 442 mg/dL              | 285 mg/dL            | Glucose levels are high due to the patient's uncontrolled type two diabetes mellitus (Capriotti & Frizzell, 2016).                       |
| <b>BUN</b>        | 8-25 mg/dL          | 18 mg/dL               | 12 mg/dL             |  |
| <b>Creatinine</b> | 0.6-1.3 mg/dL       | 1.41 mg/dL             | 1.29 mg/dL           |  |
| <b>Albumin</b>    | 3.5-5.2 gm/dL       | 3.2 gm/dL              | 3.3 gm/dL            | Albumin levels are slightly decreased due an inflammatory disease and the patient's poor nutritional state (Capriotti & Frizzell, 2016). |
| <b>Calcium</b>    | 8.6-10 mg/dL        | 9 mg/dL                | 8.8 mg/dL            |  |
| <b>Mag</b>        | 1.6-2.6 mg/dL       | 2.1 mg/dL              | N/A                  |  |
| <b>Phosphate</b>  | 2.5-4.5 mg/dL       | 2.6 mg/dL              | N/A                  |  |

N321 Care Plan

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|--------------------|---------------------|------------|------------|--|
| <b>Bilirubin</b>   | Less than 1.5 mg/dL | 0.4 mg/dL  | N/A        |  |
| <b>Alk Phos</b>    | 20-140 U/L          | 105 U/L    | N/A        |  |
| <b>AST</b>         | 10-30 units/L       | 14 units/L | 13 units/L |  |
| <b>ALT</b>         | 10-40 units/L       | 37 units/L | 25 units/L |  |
| <b>Amylase</b>     | -                   | N/A        |            |  |
| <b>Lipase</b>      | -                   | N/A        |            |  |
| <b>Lactic Acid</b> | -                   | 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   |
|--------------------|---------------------------------|--------------------|---------------|---|
| <b>INR</b>         | 1 second                        | 1 second           | N/A           |   |
| <b>PT</b>          | 9.5-11.3 seconds                | 13.5 seconds       | N/A           | A prolonged PT means that the blood is taking too long to form a clot and could be because of an underlying condition such as liver disease (Capriotti & Frizzell, 2016). |
| <b>PTT</b>         | 30-40 seconds                   | 24 seconds         | N/A           | A decreased PTT time could indicate an underlying condition such as liver disease (Capriotti & Frizzell, 2016).   |
| <b>D-Dimer</b>     | Less than or equal to 250 ng/mL | N/A                | N/A           |   |
| <b>BNP</b>         | 15.00-99.90 pg/mL               | 133.70 pg/mL       | N/A           | An elevated BNP can be due to the patient's chronic kidney disease and COPD (Capriotti & Frizzell, 2016).   |
| <b>HDL</b>         | More than 60 mg/dL              | N/A                | N/A           |   |
| <b>LDL</b>         | Less than 130 mg/dL             | N/A                | N/A           |   |
| <b>Cholesterol</b> | Less than                       | N/A                | N/A           |   |

N321 Care Plan

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|                      | 200 mg/dL          |     |     |  |
| <b>Triglycerides</b> | Less than 150mg/dL | N/A | N/A |  |
| <b>Hgb A1c</b>       | Less than 7%       | N/A | N/A |  |
| <b>TSH</b>           | 0.4-4.0 mU/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 |
|----------------------------|--------------------------|---|---------------|---------------------|
| <b>Color &amp; Clarity</b> | Colorless, yellow, clear | Colorless, yellow, clear, no odor present |               |                     |
| <b>pH</b>                  | 4.5-8                    | 7   |               |                     |
| <b>Specific Gravity</b>    | 1.005-1.035              | 1.010                                     |               |                     |
| <b>Glucose</b>             | Negative                 | negative                                  |               |                     |
| <b>Protein</b>             | negative                 | negative                                  |               |                     |
| <b>Ketones</b>             | negative                 | negative                                  |               |                     |
| <b>WBC</b>                 | negative                 | negative                                  |               |                     |
| <b>RBC</b>                 | negative                 | negative                                  |               |                     |
| <b>Leukoesterase</b>       | negative                 | negative                                  |               |                     |

**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 |
|----------------------|--------------|--------------------|---------------|-------------------------|
| <b>Urine Culture</b> | -            | N/A                |               |                         |

|                       |                  |                              |  |  |
|-----------------------|------------------|------------------------------|--|--|
| <b>Blood Culture</b>  | <b>No growth</b> | <b>No growth after 1 day</b> |  |  |
| <b>Sputum Culture</b> | -                | N/A                          |  |  |
| <b>Stool Culture</b>  | -                | N/A                          |  |  |

**Lab Correlations Reference (APA):**

Capriotti, T., & Frizzell, J. P. (2016). *Human Pathophysiology*. F.A. Davis Company.

Crnp, H. B. M. R., Palm, M. L., & Md, L. B. S. (2016). *Bates' Nursing Guide to Physical Examination and History Taking* (2nd ed.). LWW.

Kee, J.L.F. (2017). *Pearson handbook of laboratory & diagnostic tests with nursing implications*. Pearson.

**Diagnostic Imaging**

**All Other Diagnostic Tests (5 points):**

**EKG 12 Lead:** Results pending.

**X-ray:** Results: 2 metallic pins were identified in the projection of the 3<sup>rd</sup> and 4<sup>th</sup> metatarsals on the AP view. The lateral projection image suggests that the 3<sup>rd</sup> metatarsal pin is along the dorsal surface of the 3<sup>rd</sup> metatarsal. It also shows sclerosis in the projection of the 2<sup>nd</sup> metatarsal which may indicate a healing fracture in the 2<sup>nd</sup> metatarsal as well. Severe soft tissue swelling about the distal portion of the 5<sup>th</sup> metatarsal with gas in the soft tissue are seen and could indicate a gas-forming infection with soft tissues. Prominent soft tissue swelling around the ankle is also suspected.

**Diagnostic Test Correlation (5 points):**

Patient presented to the ER with complaint of left leg pain in the ankle and lower leg. During assessment, the patient was found to have a swollen ankle and cellulitis of the lower extremity. Due to this, the provider found it important to order an x-ray of her left lower extremity. Soft tissue swelling and a closed fracture of the metatarsals were seen. This indicated that there were new findings since the preoperative study on 08/03/2020.

**Diagnostic Test Reference (APA):**

Corn, R. P. J. H. L., & PhD Rn, K. C. H. (2017). *Brunner & Suddarth's Textbook of Medical-Surgical Nursing (Brunner and Suddarth's Textbook of Medical-Surgical)* (14th ed.). LWW.

Kee, J.L.F. (2017). *Pearson handbook of laboratory & diagnostic tests with nursing implications*. Pearson.

**Current Medications (10 points, 1 point per completed med)  
\*10 different medications must be completed\***

**Home Medications (5 required)**

|                           |                            |                       |                          |                                      |                      |
|---------------------------|----------------------------|-----------------------|--------------------------|--------------------------------------|----------------------|
| <b>Brand/<br/>Generic</b> | Acetaminophen<br>(Tylenol) | Furosemide<br>(Lasix) | Allopurinol<br>(Lopurin) | Atorvastatin<br>calcium<br>(Lipitor) | Meloxicam<br>(Mobic) |
| <b>Dose</b>               | 500mg                      | 40mg                  | 100mg                    | 40mg                                 | 15mg                 |
| <b>Frequency</b>          | Every 4<br>hours PRN       | 3 tablets<br>b.i.d.   | q.d.                     | q.d.                                 | q.d.                 |
| <b>Route</b>              | oral                       | oral                  | oral                     | oral                                 | oral                 |

|                                   |  |  |   |   |  |
|-----------------------------------|--|--|---|---|--|
| <p><b>Classification</b></p>      | <p>Nonsalicylate, para-aminophenol derivative, antipyretic, nonopioid analgesic</p>  | <p>Loop diuretic, antihypertensive, diuretic</p>   | <p>Xanthine oxidase inhibitor, antigout</p>   | <p>HMG-CoA reductase inhibitor, antihyperlipidemic</p>  | <p>NSAID, analgesic</p>  |
| <p><b>Mechanism of Action</b></p> | <p>Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of prostaglandin E2.</p> | <p>Inhibits sodium and water reabsorption in the loop of Henle and increases urine formation. As the body's plasma volume decreases, aldosterone production increases, which promotes sodium reabsorption and the loss of potassium and hydrogen ions. Furosemide also increases the excretion of calcium, magnesium, bicarbonate, ammonium, and phosphate. By reducing intracellular and extracellular fluid volume, the drug</p> | <p>Inhibits uric acid production by inhibiting xanthine oxidase, the enzyme that converts hypoxanthine and xanthine to uric acid. Allopurinol is metabolized to oxipurinol, which also inhibits xanthine oxidase.</p> | <p>Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and by increasing the number of LDL receptors on liver cells to enhance LDL uptake and breakdown.</p> | <p>Blocks cyclooxygenase, the enzyme needed to synthesize prostaglandins, which mediate the inflammatory response and cause local pain, swelling, and vasodilation. By inhibiting prostaglandins, the NSAID meloxicam reduces inflammatory symptoms. It also relieves pain because prostaglandins promote pain transmission from the periphery to the spinal cord.</p> |

N321 Care Plan

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|  |  | reduces blood pressure and decreases cardiac output. Over time, cardiac output returns to normal.    |  |   |   |
| <b>Reason Client Taking</b>                | This medication is being taken for pain and fever.   | This medication is being taken to manage edema and hypertension.                                     | This medication is being taken to treat primary gout and hyperuricemia.  | This medication is being taken to control lipid levels  | This medication is being taken to relieve signs and symptoms of rheumatoid arthritis.   |
| <b>Contraindications (2)</b>               | Severe hepatic impairment, severe active liver disease   | Anuria, hypersensitivity to furosemide or its components   | Hypersensitivity to allopurinol or its components.   | Active hepatic disease, breastfeeding   | Asthma, bronchospasm  |
| <b>Side Effects/ Adverse Reactions (2)</b> | Agitation, fatigue   | Arrhythmias, thromboembolism   | Thrombocytopenia, hepatic necrosis   | Arrhythmias, hypoglycemia   | Heart failure, GI bleeding  |
| <b>Nursing Considerations (2)</b>          | 1. Use acetaminophen cautiously in patient's with hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypovolemia, or severe renal impairment<br>2. | 1. obtain patient's weight periodically to monitor fluid loss.<br>2. monitor patient for hypokalemia | 1. have patient maintain a fluid intake to produce a daily urinary output of 2 L daily.<br>2. Monitor patient for the development of a skin rash that may occur 1 week or more after allopurinol therapy is initiated. | 1. monitor blood glucose because atorvastatin can affect blood glucose control.<br>2. Medication should be given to the patient around the same time every day to maintain its effects. | 1. know that the risk of heart failure increases with the NSAID use.<br>2. monitor patient closely for thrombotic events. These events may occur early in treatment and risk increases with duration of |

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|  | acetaminophen can cause hepatotoxicity, so liver function tests need to be ordered and monitored |  |  |  | time. |
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**Hospital Medications (5 required)**

|                                |  |   |  |   |   |
|--------------------------------|--|---|--|---|---|
| <b>Brand/<br/>Generic</b>      | Aspirin<br>(Ecotrin)   | Glimepiride<br>(Amaryl)   | Lorazepam<br>(Ativan)  | Pregabalin<br>(Lyrica)  | Amitriptyline<br>hydrochloride<br>(Elavil)  |
| <b>Dose</b>                    | 81mg   | 4mg   | 1mg  | 100mg   | 100mg   |
| <b>Frequency</b>               | q.d.   | b.i.d.  | q.d. at<br>bedtime   | q.d. at<br>bedtime  | q.d. at<br>bedtime  |
| <b>Route</b>                   | oral   | oral  | oral   | oral  | oral  |
| <b>Classification</b>          | Salicylate,<br>NSAID<br>(anti-<br>inflammator<br>y,<br>antiplatelet,<br>antipyretic,<br>nonopioid<br>analgesic)  | Sulfonylure<br>a,<br>Antidiabeti<br>c   | Anxiolytic,<br>Benzodiazepi<br>ne  | Gamma-<br>aminobutyric<br>acid (GABA)<br>analogue,<br>analgesic,<br>anticonvulsan<br>t  | Tricyclic<br>antidepressant<br>,<br>antidepressant  |
| <b>Mechanism of<br/>Action</b> | Blocks the activity of cyclooxygenase, the enzyme needed for prostaglandin synthesis. Inhibits platelets aggregation by interfering with production of thromboxane | Stimulates insulin release from beta cells in pancreas. Glimepiride also increases peripheral tissue sensitivity to insulin, either by enhancing insulin binding to | May potentiate the effects of GABA and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of CNS. GABA inhibits | Binds to alpha 2 delta site, an auxiliary subunit of voltage calcium channels in CNS tissue where it may reduce calcium dependent release of several neurotransmitters, possibly by | Acts by blocking the reuptake of both serotonin and norepinephrine neurotransmitters. This action may elevate mood and reduce depression. |

N321 Care Plan

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|                              | A2.   | cellular receptors or by increasing the number of insulin receptors.   | excitatory stimulation, which helps control emotional behavior. Limbic system contains a highly dense area of benzodiazepine receptors, which may explain drug's antianxiety effects. Also, lorazepam hyperpolarizes neuronal cells, thereby interfering with their ability to generate seizures. | modulating calcium channel function. With fewer neurotransmitters, pain sensation and seizure activity decline. |   |
| <b>Reason Client Taking</b>  | This medication is being taken to relieve mild pain or fever. | This medication is being taken to help control the patient's blood glucose levels in type 2 diabetes mellitus. | This medication is being taken to decrease any agitation and restlessness the pt may have.  | This medication is being taken to help manage neuropathic pain associated with diabetic peripheral neuropathy.  | This medication is being taken to relieve depression. |
| <b>Contraindications (2)</b> | Active bleeding or coagulation disorders, current or          | Ketoacidosis, sole therapy for type 1 diabetes   | Intra-arterial delivery; premature infants; psychosis   | Hypersensitivity to pregabalin or its components  | Acute recovery phase after MI, concurrent             |

|   |   |  |  |  |   |
|---|---|--|--|--|---|
|   | recent GI bleed or ulcers   | mellitus   |  |  | therapy with cisapride  |
| <b>Side Effects/Adverse Reactions (2)</b> | CNS depression, GI bleeding   | Hypoglycemia, liver failure  | Coma, anxiety  | Intracranial hypertension, suicidal ideation   | MI, coma  |
| <b>Nursing Considerations (2)</b>         | <p>1. Should give aspirin to patient with or after meals to prevent GI upset.</p> <p>2. Ask the patient about tinnitus. This reaction can happen when blood aspirin levels reach or exceed the maximum dosage for therapeutic effect.</p> | <p>1. monitor fasting blood glucose level to determine the patient's response to the medication.</p> <p>2. monitor the patient closely for any allergic reactions especially those that can be life-threatening.</p> | <p>1. Monitor patient's respirations every 5 to 15 minutes and keep emergency resuscitation equipment readily available as it can cause life-threatening respiratory depression.</p> <p>2. Monitor the patient's closely for signs and symptoms of profound decrease in consciousness, including coma, sedation, and respiratory depression.</p> | <p>1. Monitor patient closely for any adverse effects and stop the medication if patient shows signs of hypersensitivity.</p> <p>2. Medication can cause edema and weight gain. Patient should be weighed often.</p> | <p>1. Use with caution if the patient has a history of seizures, urine retention, or angle-closure glaucoma because of amitriptyline's atropine-like effects.</p> <p>2. Monitor the patient's blood pressure for hypotension or hypertension.</p> |

**Medications Reference (APA):**

Jones & Bartlett Learning. (2019). *2019 Nurse's drug handbook*. Burlington, MA.

**Assessment**

**Physical Exam (18 points)**

|                           |                                      |
|---------------------------|--------------------------------------|
| <b>GENERAL (1 point):</b> | Pt appears uncomfortable and in pain |
|---------------------------|--------------------------------------|

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| <p><b>Alertness:</b><br/> <b>Orientation:</b><br/> <b>Distress:</b><br/> <b>Overall appearance:</b></p>  | <p>A&amp;O x3<br/> Oriented to person, time, place, and current events, but is confused and depressed.<br/> Pt appears to be in moderate distress<br/> Pt appears uncomfortable and pale. Looks like the patient is in pain</p>   |
| <p><b>INTEGUMENTARY (2 points):</b><br/> <b>Skin color:</b><br/> <b>Character:</b><br/> <b>Temperature:</b><br/> <b>Turgor:</b><br/> <b>Rashes:</b><br/> <b>Bruises:</b><br/> <b>Wounds:</b> .<br/><br/> <b>Braden Score:</b><br/> <b>Drains present:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Type:</b></p>   | <p>White/ looks a little pale for race<br/> Appears dehydrated, not well groomed<br/> Warm<br/> Normal turgor 2+<br/> None noted<br/> None noted<br/> Wound noted on bottom of left foot. 15cm at least, warm, swollen, red, tenderness<br/> Left lower extremity cellulitis<br/> 14</p>  |
| <p><b>HEENT (1 point):</b><br/> <b>Head/Neck:</b><br/><br/> <b>Ears:</b><br/><br/> <b>Eyes:</b><br/><br/> <b>Nose:</b><br/><br/> <b>Teeth:</b></p>   | <p>Head and neck are symmetrical, no bumps or lesions noted. Trachea is midline. Lymph nodes are nonpalpable<br/> Ears are free of discharge, no bumps or lesions noted, healthy cerumen, and tympanic membrane is a pearly grey<br/> Upon inspection sclera was white, cornea was clear, conjunctiva was white with no lesions or discharge noted. Normal EOM<br/> Septum midline. No drainage or bleeding noted. No deviation or abnormalities and sinuses are not tender<br/> Patient has natural teeth on top and bottom. Poor hygiene overall. No lesions or bumps noted. Mouth is pink and moist.</p> |
| <p><b>CARDIOVASCULAR (2 points):</b><br/> <b>Heart sounds:</b><br/> <b>S1, S2, S3, S4, murmur etc.</b><br/> <b>Cardiac rhythm (if applicable):</b><br/><br/> <b>Peripheral Pulses:</b><br/> <b>Capillary refill:</b><br/> <b>Neck Vein Distention:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Edema</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p> | <p>S1 and S2 heart sounds normal with no murmurs, gallops, or rubs present. Patient had good air movement. Patient was tachycardic<br/> Pulse was 95 bpm radial<br/> Capillary refill is between 5-6 seconds.<br/><br/> Lower left extremity</p>  |

|  |   |
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| <p><b>Location of Edema:</b></p>   |   |
| <p><b>RESPIRATORY (2 points):</b><br/> <b>Accessory muscle use:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Breath Sounds: Location, character</b></p>  | <p>Patient has normal lung sounds with no dyspnea. Respirations are nonlabored.</p>   |
| <p><b>GASTROINTESTINAL (2 points):</b><br/> <b>Diet at home:</b><br/> <b>Current Diet</b><br/> <b>Height:</b><br/> <b>Weight:</b><br/> <b>Auscultation Bowel sounds:</b><br/> <b>Last BM:</b><br/> <b>Palpation: Pain, Mass etc.:</b><br/> <b>Inspection:</b><br/> <b>Distention:</b><br/> <b>Incisions:</b><br/> <b>Scars:</b><br/> <b>Drains:</b><br/> <b>Wounds:</b><br/> <b>Ostomy:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Nasogastric:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Size:</b><br/> <b>Feeding tubes/PEG tube</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Type:</b></p> | <p>Normal eating at home, patient stated they eat what they want at home<br/>         Diabetic diet<br/>         5'9"<br/>         325 lbs<br/>         Bowel sounds are normoactive in each quadrant<br/>         One day ago<br/>         No pain or masses noted on palpation<br/>         No abnormalities found upon inspection for distention, incision, scars, or drains.</p> <p>Wound on bottom of left foot. At least 15cm, warm to the touch, redness, swollen, and tenderness present.</p> |
| <p><b>GENITOURINARY (2 Points):</b><br/> <b>Color:</b><br/> <b>Character:</b><br/> <b>Quantity of urine:</b><br/> <b>Pain with urination:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Dialysis:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Inspection of genitals:</b><br/> <b>Catheter:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/><br/> <b>Type:</b><br/> <b>Size:</b></p>   | <p>Colorless, yellow, and no odor present.<br/>         Patient voided once while I was there, but output was not recorded.<br/>         Genitals and bottom showed no signs of lesions or skin breakdown.</p>  |
| <p><b>MUSCULOSKELETAL (2 points):</b><br/> <b>Neurovascular status:</b><br/> <b>ROM:</b><br/> <b>Supportive devices:</b><br/> <b>Strength:</b><br/> <b>ADL Assistance:</b> Y <input type="checkbox"/> N <input type="checkbox"/><br/> <b>Fall Risk:</b> Y <input type="checkbox"/> N <input type="checkbox"/><br/> <b>Fall Score:</b><br/> <b>Activity/Mobility Status:</b><br/> <b>Independent (up ad lib)</b> <input type="checkbox"/><br/> <b>Needs assistance with equipment</b> <input type="checkbox"/></p>  | <p>Patient has no neurovascular deficits noted.<br/>         ROM is good.<br/>         Patient uses a walker.<br/>         Patient is very weak and works with physical therapy every day.<br/>         Fall risk is 16. Patient is a high risk for falls and on fall precautions.<br/>         Patient walks with a walker and gait belt. Patient is a two assist. Patient tends to lose their balance easily.</p>   |

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| <p><b>Needs support to stand and walk</b> <input checked="" type="checkbox"/></p>  | <p>Patient needs support to stand and walk</p>   |
| <p><b>NEUROLOGICAL (2 points):</b><br/> <b>MAEW:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/><br/> <b>PERLA:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/><br/> <b>Strength Equal:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>if no -</b><br/> <b>Legs</b> <input type="checkbox"/> <b>Arms</b> <input checked="" type="checkbox"/> <b>Both</b> <input type="checkbox"/><br/><br/> <b>Orientation:</b><br/><br/> <b>Mental Status:</b><br/> <b>Speech:</b><br/> <b>Sensory:</b><br/> <b>LOC:</b></p> | <p>Patient presents signs of weakness in lower extremities. Patient can move arms bilaterally.</p> <p>Oriented to person, time, place, and current events<br/>         Patient is confused and depressed.<br/>         Patient has good overall vision.<br/>         Alert and oriented x3</p> |
| <p><b>PSYCHOSOCIAL/CULTURAL (2 points):</b><br/> <b>Coping method(s):</b><br/> <b>Developmental level:</b><br/> <b>Religion &amp; what it means to pt.:</b><br/> <b>Personal/Family Data (Think about home environment, family structure, and available family support):</b></p>   | <p>No deficits were noted.<br/>         Patient does not specify a religion.<br/>         Patient did not note any coping methods.<br/>         Patient lives with husband, but mostly takes care of herself. They have a daughter that visits and helps them out when needed.</p>             |

**Vital Signs, 2 sets (5 points)**

| Time | Pulse  | B/P    | Resp Rate | Temp                    | Oxygen   |
|------|--------|--------|-----------|-------------------------|--|
| 0700 | 95 bpm | 133/72 | 18        | 99.2 °F<br><br>temporal | 95% with 2L<br><br>of nasal<br>cannula<br>oxygen |
| 1100 | 96 bpm | 132/76 | 20        | 98.6 °F<br><br>temporal | 94% with 2L<br><br>of nasal<br>cannula<br>oxygen |

**Pain Assessment, 2 sets (2 points)**

| <b>Time</b> | <b>Scale</b> | <b>Location</b>      | <b>Severity</b> | <b>Characteristics</b>   | <b>Interventions</b>   |
|-------------|--------------|----------------------|-----------------|--|--|
| 0745        | 0-10         | Left lower extremity | 8/10            | Patient described her pain as feeling throbbing and achy.  | Patient is taking 500mg of acetaminophen every 4 hours as needed to help keep her pain level and fever under control. Patient is also taking 81mg of aspirin every day to help with her pain.      |
| 0815        | 0-10         | Left lower extremity | 6/10            | Patient described her pain as throbbing and achy, but said she felt better after taking her morning pain medication. | Patient took aspirin to help with the pain she was experiencing. Patient can also take 500mg every 4 hours as needed to help keep her pain level under control and lower her fever if she has one. |

**IV Assessment (2 Points)**

| <b>IV Assessment</b>   | <b>Fluid Type/Rate or Saline Lock</b> |
|--|---------------------------------------|
| <p><b>Size of IV:</b> 20 gauge<br/> <b>Location of IV:</b> right hand<br/> <b>Date on IV:</b> 09/10/2020<br/> <b>Patency of IV:</b> patent<br/> <b>Signs of erythema, drainage, etc.:</b> no signs of erythema or drainage noted.<br/> <b>IV dressing assessment:</b> IV site looks clean and dry with no redness or irritation noted.</p> | <p>Saline lock</p>                    |

**Intake and Output (2 points)**

| Intake (in mL) | Output (in mL)      |
|----------------|---------------------|
| 210 mL         | No output was noted |

**Nursing Care**

**Summary of Care (2 points)**

**Overview of care:** Patient is on 2 L nasal cannula to keep oxygen levels above 90%. Patient is diabetic and requires accu-checks before and after meals. The patient last rated her pain a 6 on a scale of 0-10 at 0815. The patient is prescribed acetaminophen 500mg every 4 hours PRN for pain and fever. Patient is also prescribed 81mg of aspirin every day for pain. Patient uses a walker and gait belt to ambulate. The patient transfers with a two-person assist. Patient works with physical therapy everyday to help gain strength back. The nurses did show concern with her diet as her blood glucose level was over 600 when she came into the emergency department and typically likes to stay in the upper 200s throughout the day.

**Procedures/testing done:** Patient had an X-ray on her left lower extremity which showed a wound near the 5<sup>th</sup> digit of the left foot and a closed fracture of the metatarsal bones.

**Complaints/Issues:** Patient had no issues or complaints.

**Vital signs (stable/unstable):** Patient’s vital signs were stable. Patient did show some signs of being tachycardic and hypertensive.

**Tolerating diet, activity, etc.:** Patient will continue to be on a diabetic diet while in the hospital and will continue to have her blood sugar checked before and after meals. Patient can participate in normal activities as tolerated with health care providers help.

**Physician notifications:** No notifications were presented at this time.

**Future plans for patient:** Patient will continue oxygen therapy with the nasal cannula. Patient’s blood glucose will also continue to be monitored in hopes of getting it under control.

**Discharge Planning (2 points)**

**Discharge location:** Patient will be discharged to her home.

**Home health needs (if applicable):** The patient refused any services for at home at this time.

**Equipment needs (if applicable):** Patient will continue to use a walker once she is discharged home.

**Follow up plan:** Patient will follow-up with her primary care provider within 10 days after discharge. Patient may need to continue wearing the boot for her fracture once discharged depending on the pending results.

**Education needs:** Patient will need education related to uncontrolled type two diabetes mellitus. Patient should get education on the proper dieting and exercising to help better her health. Smoking cessation education should also be provided to this patient, as she says she currently smokes one pack of cigarettes a day and has since she was 30 years old.

**Nursing Diagnosis (15 points)**

**\*Must be NANDA approved nursing diagnosis and listed in order of priority\***

| <b>Nursing Diagnosis</b> <ul style="list-style-type: none"> <li>• Include full nursing diagnosis with “related to” and “as evidenced by” components</li> </ul> | <b>Rational</b> <ul style="list-style-type: none"> <li>• Explain why the nursing diagnosis was chosen</li> </ul> | <b>Intervention (2 per dx)</b>         | <b>Evaluation</b> <ul style="list-style-type: none"> <li>• How did the patient/family respond to the nurse’s actions?</li> <li>• Client response, status of goals and outcomes, modifications to plan.</li> </ul> |
|--|--|--|---|
| 1. Risk for falls related to altered   | Patient must use a walker to help her  | 1. Encourage the patient to always use | Patient’s family was not at the hospital with her.  |

N321 Care Plan

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| <p>mobility secondary to unsteady gait as evidenced by patient unsteady on feet and a fall score of 16.</p>                             | <p>ambulate and transfer with a two-person assist. Patient also has a closed fracture of the metatarsal bones in her left lower extremity due to a recent fall.</p>  | <p>her walker and to wear shoes or slippers with nonskid soles.</p> <p>2. Make sure the patient's bed is always lowered to the lowest possible position and move all belongings within arms reach of the patient.</p>  | <p>Patient responded great to her goals and outcomes. Patient ambulated with her walker and always waited for someone to help her transfer. Goals were met. Patient will be re-evaluated on evening shift.</p>   |
| <p>2. Ineffective health maintenance related to demonstration of uncontrolled diabetes as evidenced by high blood sugar</p>             | <p>Patient came into the emergency department with her blood glucose level over 600. Once admitted to the hospital her blood glucose level dropped, but still stayed in the upper 200s. Patient stated that she has not been taking her insulin for over two weeks due to her insurance changing. Patient also stated that she eats whatever she wants to eat at home.</p> | <p>1. The nurse will consult with the dietitian to educate the patient on diet regime for diabetics and help the patient come up with a diet plan she can use at home.</p> <p>2. The nurse will encourage the patient to develop a daily menu that she can use at home that will help her to meet her diabetic needs</p> | <p>Patient's family was not at the hospital with her.</p> <p>Patient did not want to meet with a dietician and did not want to come up with a diet plan. She enjoys eating what she wants. Goals were not met.</p>   |
| <p>3. Impaired skin integrity related to cellulitis and pressure ulcers as evidenced by disruption of epidermal and dermal tissues.</p> | <p>Patient has cellulitis on her lower left extremity. Patient also has a pressure ulcer open on the bottom of her left foot.</p>  | <p>1. Patient will keep her left foot elevated and will not put pressure on her left foot or lower extremity unless necessary.</p> <p>2. The patient's wound will be changed daily per wound care orders and proper hygiene will be performed</p>  | <p>The patient's family was not present at the hospital with her.</p> <p>The patient kept pressure off her left lower extremity. The nurses kept her left foot clean, dry, and open to let the wound air out. Patient was taught about hygiene and keeping the wound</p> |

N321 Care Plan

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|  |  | before and after dressing changes. | clean. Goals were met. |
|--|--|------------------------------------|------------------------|

**Other References (APA):**

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. St. Louis, MO: Elsevier.

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[https://www.mayoclinic.org/diseases-conditions/cellulitis/symptoms-causes/syc-20370762#:~:text=Cellulitis%20\(s%20of%20the%20face%20and%20other%20areas.](https://www.mayoclinic.org/diseases-conditions/cellulitis/symptoms-causes/syc-20370762#:~:text=Cellulitis%20(s%20of%20the%20face%20and%20other%20areas.)

Mayo Clinic. (2020b, February 29). *Bedsore (pressure ulcer) - Symptoms and causes*.

<https://www.mayoclinic.org/diseases-conditions/bed-sores/symptoms-causes/syc-20355893>

Mayo Clinic. (2020c, August 26). *Type 2 diabetes - Symptoms and causes*.

<https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/symptoms-causes/syc-20351193>

**Concept Map (20 Points)**

### Subjective Data

Patient said her leg felt like it was throbbing.  
Patient also stated that "she felt achy."  
Patient rated her pain an 8 out of 10 and then later after medications she rated her pain a 6 out of 10.

### Objective Data

Diagnosis: uncontrolled type 2 DM and cellulitis.

Most recent vital signs: B/P - 132/76

Pulse - 96bpm

RR - 20

Temp - 98.6°F temporal

O2 - 94% with 2L of nasal cannula oxygen

Blood culture came back negative

Urine was yellow, colorless, and had no odor present.

WBCs, monocytes, glucose, BNP, INR, and PT levels were all elevated.

RBCs, Hgb, Hct, lymphocytes, albumin, and PTT levels were all decreased.

### Patient Information

A 66 year old female with a prior medical history of uncontrolled type 2 diabetes mellitus, chronic obstructive lung disease, hyponatremia, sepsis, open wound of lower limb, closed fracture of metatarsal bone, chronic obstructive kidney disease stage 3, obesity, hyperosmolar non-ketotic state in type 2 diabetes mellitus, cellulitis, hypertension, edema of the lower extremity brought herself into the emergency department because she was experiencing left leg pain from the ankle and the lower leg. The patient was admitted and diagnosed with uncontrolled type 2 DM and cellulitis. She is currently taking multiple medications including acetaminophen and aspirin for pain and fever.

### Nursing Diagnosis/Outcomes

1. Risk for falls related to altered mobility secondary to unsteady gait as evidenced by patient unsteady on feet and a fall score of 16.
  - Patient's family was not at the hospital with her.
  - Patient responded great to her goals and outcomes. Patient ambulated with her walker and always waited for someone to help her transfer. Goals were met. Patient will be re-evaluated on evening shift.
2. Ineffective health maintenance related to demonstration of uncontrolled diabetes as evidenced by high blood sugar
  - Patient's family was not at the hospital with her.
  - Patient did not want to meet with a dietician and did not want to come up with a diet plan. She enjoys eating what she wants. Goals were not met.
3. Impaired skin integrity related to cellulitis and pressure ulcers as evidenced by disruption of epidermal and dermal tissues.
  - The patient's family was not present at the hospital with her.
  - The patient kept pressure off her left lower extremity. The nurses kept her left foot clean, dry, and open to let the wound air out. Patient was taught about hygiene and keeping the wound clean. Goals were met.

### Nursing Interventions

- Encourage the patient to always use her walker and to wear shoes or slippers with nonskid soles.
- Make sure the patient's bed is always lowered to the lowest possible position and move all belongings within arm's reach of the patient.
- The nurse will consult with the dietitian to educate the patient on diet regime for diabetics and help the patient come up with a diet plan she can use at home.
- The nurse will encourage the patient to develop a daily menu that she can use at home that will help her to meet her diabetic needs
- Patient will keep her left foot elevated and will not put pressure on her left foot or lower extremity unless necessary.
- The patient's wound will be changed daily per wound care orders and proper hygiene will be performed before and after dressing changes.

## N321 Care Plan

## N321 Care Plan