# N321 Care Plan 3

Lakeview College of Nursing

Koti York

## Demographics (3 points)

| Date of Admission | Patient Initials | Age | Gender |
|---|---|---|---|
| 7/1/2020 | GL | 65 yr. old | Male |
| **Race/Ethnicity** | **Occupation** | **Marital Status** | **Allergies** |
| Caucasian | Retired- Disability | Divorced | keflex (Cephalexin) |
| **Code Status** | **Height** | **Weight** | |
| Full | 5'8" | 171 lbs | |

## Medical History (5 Points)

**Past Medical History:** Parkinson's disease, heart disease, pulmonary disease, hypercholesterolemia, hyperlipidemia, GERD, chronic lower back pain, hypertension, COPD, diabetes mellitus type 2, diabetic neuropathy, coronary artery disease, myocardial infarction, TIA/CVA

**Past Surgical History:** lumbar spine surgery, PCI times 3 stents, total right knee replacement

**Family History:** No known

**Social History (tobacco/alcohol/drugs):** Smokes 1.00 packs a day for 20 years, no drugs, and no alcohol.

**Assistive Devices:** Walker and glasses

**Living Situation:** Lives at home by himself.

**Education Level:** 11th grade.

## Admission Assessment

**Chief Complaint (2 points):** Right leg pain

**History of present Illness (10 points):** Client stated that the onset had been going on for a while before he finally got his surgery. Client stated that "his pain was in his leg down to his toes, but he was not having any pain at the moment." The client reports the duration of his right knee pain was for a long time, but he could not remember the exact time frame. The client states "the pain

was a sharp pain when I walked and when I was resting it turned into aching." The aggravating factors were when he did any type of physical activities or mobility it caused severe pain. The relieving factors was putting it up on a pillow or the couch and resting. Treatment that he received was a total right knee replacement and took Tylenol. When asked the severity of his pain during the interview he stated it was a 0 on a scale of 0-10.

## Primary Diagnosis

**Primary Diagnosis on Admission (2 points):** Osteoarthritis of the right knee

**Secondary Diagnosis (if applicable):** Altered mental status due to hyponatremia

**Pathophysiology of the Disease, APA format (20 points):** Osteoarthritis is a slowly progressive, degenerative, and inflammatory disease (Capriotti and Frizzell, 2016). When joints have excess pressure on them, the cartilage wears down, and the subchondral bone is exposed (Capriotti and Frizzell, 2016). Inflammation occurs when inflammatory mediators are released into the joints. In early osteoarthritis, chondrocytes synthesize fluid called proteoglycans, which try to repair the cartilage (Capriotti and Frizzell, 2016). As the progression of osteoarthritis occurs, the level of proteoglycans decreases, causing the cartilage to lose elasticity and crack (Capriotti and Frizzell, 2016). If osteoarthritis happens in weight-bearing joints, it causes the joint space to decrease at a higher rate. Eventually, the increasing stresses exceed the bone's strength. The subchondral bone becomes exposed and responds, inflammation increases, and the joint becomes thickened and dense in pressure areas (Capriotti and Frizzell, 2016).

Hyponatremia is a sodium level of less than 135 mEq/L. When dehydration occurs because the body has lost sodium and fluid, it is hypovolemic hyponatremia (Capriotti and Frizzell, 2016). The cause of hypovolemic renal hyponatremia is adrenal insufficiency, osmotic diuresis, diuretic use, and salt-losing nephritis (Capriotti and Frizzell, 2016). Nonrenal

hypovolemic hyponatremia is caused by diarrhea, vomiting, excessive sweating, cystic fibrosis, fistulas, burns, and wounds (Capriotti and Frizzell, 2016). If there is an excess amount of water, then it can cause hyponatremia too. It develops from dilution in the amount of water in the body. Symptoms of this type of hyponatremia include headache, lethargy, apathy, confusion, nausea, vomiting, diarrhea, muscle cramps, and muscle spasms (Capriotti and Frizzell, 2016). The most common cause of hyponatremia is water excretion is impaired and diluted within a volume of water in the bloodstream (Capriotti and Frizzell, 2016).

My client stated that he had an onset of a while before he received surgery for osteoarthritis in his knee. When he was experiencing pain before surgery, he said, “it would go from my knee down to my toes.” He reported that “the pain was sharp when I walked, and when I was resting, it turned int aching.” He is taking acetaminophen 650 mg every four hours as needed for his pain. He underwent surgery for a total knee replacement and stated he had no pain during my clinical time. He had not received any acetaminophen when I was there during the day. His confusion began after surgery last week. He was alert and oriented times one when talking to him Monday morning. When I interviewed him that evening, he was alert and oriented times two to three. When giving him time to answer questions or giving him hints, he could remember person, time, and place. His sodium lab value came back as 126 mEq/L, which would explain why he was confused. He was not receiving any medication to help correct his hyponatremia while I was there during clinical.

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

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives*. Philadelphia: F.A. Davis Company.

## 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 | 4-4.9 million/ mm3 | 4.19 | 4.41 | |
| Hgb | 12-18 g/dL | 13.0 | 13.4 | |
| Hct | 36-50 mL/dL | 37.5 | 39.5 | |
| Platelets | 150,000-350,000 mm3 | 153 | 392 | The client's platelets can be high because he had surgery (Pagana et al., 2019). |
| WBC | 4,500-11,000 mm3 | 9.50 | 9.70 | |
| Neutrophils | 52-62% | 80.9 | 69.2 | The client's neutrophils can be high because he had surgery, smokes, and has had a myocardial infarction (Pagana et al., 2019). |
| Lymphocytes | 25-33% | 12.7 | 20.9 | The client's lymphocytes are low due to surgery (Pagana et al., 2019). |
| Monocytes | 3-7% | 5.0 | 5.5 | |
| Eosinophils | 1-3% | 1.0 | 3.0 | |
| Bands | 3-5% | | | |

**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 mEg/L | 133 | 126 | The client's sodium level is low because he has heart disease (Pagana et al., 2019). |
| K+ | 3.5-5.0 mEg/L | 3.8 | 4.0 | |
| Cl- | 98-108 mEg/L | 96 | 94 | The client has heart disease and pulmonary disease which can |

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|---|---|---|---|---|
| | | | | **cause chloride to be low (Pagana et al., 2019).** |
| **CO2** | **22-32 mEg/ L** | **29** | **22** | |
| **Glucose** | **70-99 mg/dL** | **112** | **105** | **The client's glucose is high because he has diabetes mellitus (Pagana et al., 2019).** |
| **BUN** | **10-25 mg/dL** | **16** | **21** | |
| **Creatinine** | **0.2-0.9 mg/ dL** | **1.08** | **1.00** | **The client's creatinine level could be high because he may have a kidney problem because he is unable to urinate without a catheter (Pagana et al., 2019).** |
| **Albumin** | **3.5-5.0 g/dL** | **3.8** | **3.8** | |
| **Calcium** | **8.5-10.5 mg/dL** | **9.3** | **8.9** | |
| **Mag** | **1.5-2.5 mg/ dL** | **2.1** | **N/A** | |
| **Phosphate** | **2.5-4.5 mg/ dL** | **2.8** | **3.1** | |
| **Bilirubin** | **0.1-1.3 mg/ dL** | **0.9** | **1** | |
| **Alk Phos** | **40-120 u/L** | **50** | **49** | |
| **AST** | **10-40 u/L** | **25** | **24** | |
| **ALT** | **7-56 u/L** | **30** | **26** | |
| **Amylase** | **30-100 u/L** | | | |
| **Lipase** | **0-160 u/L** | | | |
| **Lactic Acid** | **0.5-1 mmol/ L** | | | |

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

| Lab Test | Normal | Value on | Today's | Reason for Abnormal |
|---|---|---|---|---|

| | Range | Admission | Value | |
|---|---|---|---|---|
| **INR** | **0.8-1.2** | | | |
| **PT** | **10-13 sec** | | | |
| **PTT** | **25-36 sec** | | | |
| **D-Dimer** | **0-0.5** | | | |
| **BNP** | **0-100 pg/mL** | | | |
| **HDL** | **60- above mg/dL** | **30** | **N/A** | **The client's HDL can be low due to high blood pressure and high blood sugar (Pagana et al., 2019).** |
| **LDL** | **Less than 100 mg/dL** | **74** | **N/A** | |
| **Cholesterol** | **Less than 200 mg/dL** | **136** | **N/A** | |
| **Triglycerides** | **Less than 150 mg/dL** | **158** | **N/A** | **The client's triglycerides could be high because of poorly controlled diabetes (Pagana et al., 2019).** |
| **Hgb A1c** | **Less than 5.7%** | | | |
| **TSH** | **0.4-4.0 mU/L** | | | |

**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 yellow/pale and clear** | **Yellow, clear** | **Yellow, clear** | |
| **pH** | **4.6-8** | **7.0** | **6.0** | |
| **Specific Gravity** | **1.001-1.035** | **1.008** | **1.012** | |
| **Glucose** | **Negative** | **Negative** | **Negative** | |
| **Protein** | **Negative** | **Negative** | **2+** | **The client could have a problem with his kidneys that are not allowing him to filter out protein (Pagana et al., 2019).** |

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|---|---|---|---|---|
| **Ketones** | **Negative** | **Negative** | **2+** | **Ketones in the urine can indicate diabetic ketoacidosis which could lead to coma or death (Pagana et al., 2019).** |
| **WBC** | **Negative** | **Negative** | **6-10** | **The client may have increased WBC because he has some urinary blockage and cannot urinate (Pagana et al., 2019).** |
| **RBC** | **Negative** | **3-5** | **21-50** | **The client could have kidney stones due to his urine retention and not being able to urinate which could cause a rise in RBC (Pagana et al., 2019).** |
| **Leukoesterase** | **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 |
|---|---|---|---|---|
| **Urine Culture** | **(-) <10,000 mL (+) >100,000 mL** | | | |
| **Blood Culture** | **Negative** | | | |
| **Sputum Culture** | **Normal upper respiratory tract** | | | |
| **Stool Culture** | **Normal intestinal flora** | | | |

**Lab Correlations Reference (APA):**

Pagana, K.D., Pagana, T.J., and Pagana, T.N. (2019). *Mosby's Diagnostic and Laboratory Test Reference.* St. Louis, MO: Elsevier.

**Diagnostic Imaging**

**All Other Diagnostic Tests (5 points):** Chest x-ray, x-ray of right knee, CT of head and brain

**Diagnostic Test Correlation (5 points):** (7/1/2020) X-ray of the right knee. Findings- postop changes of the right knee replacement with patellar resurfacing component. Components appear well seated. Soft tissue drains in place. There are several small loose bodies adjacent to the femoral condyles. Impression- status post right knee replacement, components seem well seated. CT head or brain without contrast. Findings- third, fourth, and lateral ventricles are mildly enlarged with prominent sulci consistent with mild atrophy. No hemorrhage or mass seen. Chronic lacunar infarct in the left to basilar ganglion. Old lacunar infarct in left thalamus. Also, old lacunar infarct in right basal ganglion. No sulcal effacement. No midline shifts. No abnormal density of the middle cerebral arteries. No skull fractures. Impressions- mild cerebral atrophy with prominence of the sulci and ventricles. Multiple chronic lacunar infarcts.
X-ray chest. Findings- lungs- three views of the chest obtained demonstrated mild emphysematous changes with COPD. No acute infiltrates or consolidation of condition. No pleural effusion. Heart- borderline cardiac size. Mild ectasia of the thoracic aorta. Mediastinum- within normal limits. Bones- normal.

Chest x-rays are used to produce images of the heart, lungs, blood vessels, airways, and bones of the chest and spine (*Chest X-rays, 2020*). These x-rays also show if fluid or air is surrounding the lungs. Once a client presents with any problems in the chest, a physician will order a chest x-ray to see if there is a heart problem, collapsed lung, pneumonia, broken ribs, emphysema, cancer, and other conditions (*Chest X-rays, 2020*). They can see if there is cancer, infection, or air around or in the lung, which may lead to a collapsed lung, and chronic lung conditions (*Chest X-rays, 2020*). It can show the size and shape of the heart, fluid around the heart, valve problems, large vessels, calcium deposits, fractures, postoperative changes, pacemakers, defibrillators, and catheters. My client received a chest x-ray because he

has COPD, heart failure, and pulmonary disease. On the chest x-ray it showed that he had some mild emphysematous changes with his COPD. By having a chest x-ray often, they can compare the results to see if he is getting worse or better in terms of his COPD. They can also see if there is any fluid buildup in the lungs or around the lungs for his pulmonary disease.

CT of the head help assesses head injuries, severe headaches, dizziness, aneurysm, bleeding, stroke, and brain tumors (Radiological Society of North America (RSNA) and American College of Radiology (ACR)). In an emergency, it can reveal internal injuries and bleeds quickly enough to save lives (Radiological Society of North America (RSNA) and American College of Radiology (ACR)). CT can provide more details on head injuries, stroke, brain tumors, and other brain diseases (Radiological Society of North America (RSNA) and American College of Radiology (ACR)). When preparing for a CT leaving all metal at home is recommended as it can interfere with the machine. If a CT with contrast is used, do not eat or drink anything for a couple of hours beforehand (Radiological Society of North America (RSNA) and American College of Radiology (ACR)). Informing your doctor about any medical conditions is essential, whether it be heart disease, asthma, diabetes, kidney disease, or thyroid problems. If the client has diabetes, it is necessary to tell the physician if they are taking Glucophage (Radiological Society of North America (RSNA) and American College of Radiology (ACR)). My client received a CT because he has a history of stroke. His scan showed old infarcts, and if he had any new stroke activity, it would have revealed that. By having this scan, it gave the doctor an idea if he had any new stroke activity. It also showed mild cerebral atrophy. He is also on Glucophage, so he did not get a CT with contrast due to interactions.

X-rays are a quick and painless procedure that produces images of the bones inside the body (*X-ray, 2020*). X-rays have beams pass through the

body, and they absorb in different amounts depending on the density that they need to pass through (*X-ray, 2020*). Bones and metal show up white on the x-ray, and if there is air in the lungs, it will come back black (*X-ray, 2020*). The fat and muscle in the body will appear in gray. X-rays are done to see fractures, arthritis, dental decay, osteoporosis, and bone cancer (*X-ray, 2020*). My client received an x-ray because he had knee surgery, and it produced images to make sure everything was in place. When he received the x-ray, he had a drain placed, which showed that it was correctly set and draining the fluid of the knee. Since he got a total knee replacement, it also produced images to ensure that the patellar was placed in the correct spot.

**Diagnostic Test Reference (APA):**

*Chest X-rays*. (2020, May 2). Retrieved from https://www.mayoclinic.org/tests-procedures/chest-x-rays/about/pac-20393494

Radiological Society of North America (RSNA) and American College of Radiology (ACR). (n.d.). *Head CT (Computed Tomography, CAT scan).* Retrieved from https://www.radiologyinfo.org/en/info.cfm?pg=headct

*X-ray.* (2020, February 05). Retrieved from https://www.mayoclinic.org/tests-procedures/x-ray/about/pac-20395303

**Current Medications (10 points, 1 point per completed med)**
***10 <u>different</u> medications must be completed***
**Home Medications (5 required)**

| **Brand/Generic** | **acetaminophen (Tylenol)** | **metformin (Glucophage)** | **ondansetron (Zofran)** | **insulin lispro (Humalog)** | **simvastatin (Zocor)** |
|---|---|---|---|---|---|
| **Dose** | **650 mg** | **500 mg** | **4 mg** | **3-15 units** | **20 mg** |
| **Frequency** | **Every 4 hours PRN** | **Daily** | **Every 8 hours PRN** | **3 times a day with meals** | **Nightly** |
| **Route** | **Oral** | **Oral** | **Oral** | **Subcutaneous** | **Oral** |
| **Classification** | **Nonsalicylate, para-aminophenol derivative (Jones and Bartlett, 2019, pg 12).** | **Dimethylbiguanide (Jones and Bartlett, 2019, pg 755).** | **Carbazole (Jones and Bartlett, 2019, pg 899).** | **Antidiabetic** | **Synthetically derived fermentation product of Aspergillus terreus (Jones and Bartlett, 2019, pg 1121).** |
| **Mechanism of Action** | **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 (Jones and Bartlett, 2019, pg 13).** | **May promote storage of excess glucose as glycogen in the liver, which reduces glucose production. Metformin also may improve glucose use by adipose tissue and skeletal muscle by increasing glucose transport across cell membranes. This drug also may increase the number of insulin receptors on the cell membrane and make them more sensitive to insulin. In addition, metformin modestly decreases blood total cholesterol and triglyceride levels (Jones and Bartlett, 2019, pg 756).** | **Blocks serotonin receptors centrally in the chemoreceptor trigger zone and peripherally at vagal nerve terminals in the intestine. This action reduces nausea and vomiting by preventing serotonin release in the small intestine and by blocking signals to the CNS. Ondansetron may also bind to other serotonin receptors and to mu-opioid receptors (Jones and Bartlett, 2019, pg 901).** | **Lower blood glucose by stimulating peripheral glucose uptake especially by skeletal muscle and fat by inhibiting hepatic glucose production. Insulin inhibits lipolysis and proteolysis and enhances protein synthesis.** | **Interferes with hepatic enzyme hydroxymethylglutaryl-coenzyme A reductase. This action reduces the formation of mevalonic acid, a cholesterol precursor, thus interrupting the pathway necessary for cholesterol synthesis. When the cholesterol level declines in hepatic cells, LDLs are consumed, which in turn reduces the levels of circulating total cholesterol and serum triglycerides (Jones and Bartlett, 2019, pg 1121).** |
| **Reason Client Taking** | **To relieve moderate to mild pain (Jones and Bartlett, 2019, pg 12).** | **To reduce blood glucose level in type 2 diabetes mellitus (Jones and Bartlett, 2019, pg 755).** | **To prevent nausea and vomiting (Jones and Bartlett, 2019, pg 900).** | **To improve glycemic control in diabetes mellitus.** | **To treat hyperlipidemia (Jones and Bartlett, 2019, pg 1121).** |
| **Contraindications (2)** | **Hypersensitivity to** | **Advanced renal disease and** | **Concomitant use of** | **Hypersensitivity to Humalog or** | **Hypersensitivity to simvastatin or its** |

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|---|---|---|---|---|---|
| | **acetaminophen or its components, severe hepatic impairment (Jones and Bartlett, 2019, pg 13).** | **hypersensitivity to metformin or its components (Jones and Bartlett, 2019, pg 756).** | **apomorphine and hypersensitivity to ondansetron or its components (Jones and Bartlett, 2019, pg 901).** | **its components. Can cause hypoglycemia.** | **components and active hepatic disease (Jones and Bartlett, 2019, pg 1121).** |
| **Side Effects/Adverse Reactions (2)** | **Hypertension and agitation (Jones and Bartlett, 2019, pg 13).** | **Nausea and hypoglycemia (Jones and Bartlett, 2019, pg 756).** | **Shortness of breath and weakness (Jones and Bartlett, 2019, pg 901).** | **Swelling in hands or feet and hypokalemia.** | **Hyperglycemia and nausea (Jones and Bartlett, 2019, pg 1122).** |
| **Nursing Considerations (2)** | **Monitor renal function in patient with long term therapy. Do not exceed daily dosage or mix other medications with acetaminophen at the same time (Jones and Bartlett, 2019, pg 14).** | **Monitor the patient's blood glucose level to evaluate drug effectiveness. Metformin should not be given to patients with severe renal impairment (Jones and Bartlett, 2019, pg 756).** | **Place the tablet immediately on the patient's tongue because it dissolves in seconds. Monitor them closely for hypersensitivity reactions (Jones and Bartlett, 2019, pg 901).** | **If drawing up with other insulin draw up insulin lispro first to avoid contamination. Administer 15 minutes before a meal and rotate injection sites.** | **Use cautiously in elderly patients and those with renal and hepatic impairment. Monitor serum lipoprotein levels as ordered (Jones and Bartlett, 2019, pg 1122).** |

**Hospital Medications (5 required)**

| **Brand/Generic** | **albuterol (Proventil, Ventolin)** | **amantadine (Symmetrel)** | **docusate sodium (Colace)** | **metoprolol tartrate (Lopressor)** | **sulfamethoxazole trimethoprim DS (Bactrim)** |
|---|---|---|---|---|---|
| **Dose** | **2.5 mg** | **100 mg** | **100 mg** | **25 mg** | **800/160 mg** |
| **Frequency** | **Every 4 hours PRN** | **2 times a day** | **2 times a day** | **2 times a day** | **2 times a day** |
| **Route** | **Nebulizer** | **Oral** | **Oral** | **Oral** | **Oral** |

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|---|---|---|---|---|---|
| **Classification** | **Selective beta2-adrenergic agonists, bronchodilator (Jones and Bartlett, 2019, pg 32).** | **Adamantane derivative (Jones and Bartlett, 2019, pg 51).** | **Anionic surfactant, laxative (Jones and Bartlett, 2019, pg 358).** | **Beta1-adrenergic antagonist (Jones and Bartlett, 2019, pg 784).** | **Sulfonamide antimicrobial, dihydrofolate reductase inhibitor, antibacterial** |
| **Mechanism of Action** | **Albuterol attaches to beta2- receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert ATP to cAMP. This reaction decreases intracellular calcium levels. It also increases intracellular levels of cAMP. Together, these effects relax bronchial smooth-muscle cells and inhibit histamine release (Jones and Bartlett, 2019, pg 33).** | **Affects dopamine, a neurotransmitter that is synthesized and released by neurons leading from substantia nigra to basal ganglia and is essential for normal motor function. In Parkinson's disease, progressive degeneration of these neurons reduces intrasynaptic dopamine. Amantadine may cause dopamine to accumulate in the basal ganglia by increasing dopamine release by blocking dopamine reuptake into the presynaptic neurons of the CNS (Jones and Bartlett, 2019, pg 52).** | **Acts as a surfactant that softens stool by decreasing surface tension between oil and water in feces. This action lets more fluid penetrate stool, forming a softer fecal mass (Jones and Bartlett, 2019, pg 359).** | **Metoprolol also helps reduce blood pressure by decreasing renal release of renin (Jones and Bartlett, 2019, pg 784).** | **Sulfamethoxazole is a structural analog of PABA and completes with PABA to inhibit the synthesis of dihydrofolic acid, and intermediate step in formation of THF. Sulfamethoxazole binds to dihydropteroate synthetase which catalyses this reaction. Trimethoprim binds to bacterial dihydrofolate reductase also preventing the formation of THF.** |
| **Reason Client Taking** | **To treat bronchospasm (Jones and Bartlett, 2019, pg 32).** | **To manage symptoms of Parkinson's disease (Jones and Bartlett, 2019, pg 51).** | **To treat constipation (Jones and Bartlett, 2019, pg 358).** | **To manage hypertension (Jones and Bartlett, 2019, pg 784).** | **To treat urinary tract infections** |
| **Contraindications (2)** | **Hypersensitivity to albuterol or its components (Jones and Bartlett, 2019, pg 33).** | **Angle- closure glaucoma and hypersensitivity to amantadine or its component (Jones and Bartlett, 2019, pg 52).** | **Fecal impaction and hypersensitivity to docusate salts or their components (Jones and Bartlett, 2019, pg 359).** | **Hypersensitivity to metoprolol, its components, or other beta blockers and acute heart failure (Jones and Bartlett, 2019, pg 785).** | **Hypersensitivity to trimethoprim or sulfonamides and patients with renal insufficiency.** |
| **Side Effects/Adverse** | **Hyperglycemia and dry mouth** | **Fatigue and dry mouth** | **Nausea and diarrhea (Jones** | **CVA and increased** | **Decreased urination and** |

| | | | | | |
|---|---|---|---|---|---|
| **Reactions (2)** | **(Jones and Bartlett, 2019, pg 34).** | **(Jones and Bartlett, 2019, pg 52).** | **and Bartlett, 2019, pg 359).** | **triglyceride levels (Jones and Bartlett, 2019, pg 785).** | **nausea** |
| **Nursing Considerations (2)** | **Monitor serum potassium level because it can cause hypokalemia. Drug tolerance can develop with prolong use (Jones and Bartlett, 2019, pg 34).** | **Monitor for weight gain and edema because drug may redistribution of body fluid. Monitor for decreased drug effectiveness (Jones and Bartlett, 2019, pg 53).** | **Do not use when they have nausea or vomiting. Increases fiber intake, exercise regularly, and drink 6 to 8 glasses of water daily (Jones and Bartlett, 2019, pg 359).** | **If patients with heart failure develop bradycardia decrease the dosage. Check for signs of poor glucose control in patients with diabetes mellitus (Jones and Bartlett, 2019, pg 786).** | **Monitor for hypoglycemia and monitor intake and output ratios. Fluid intake should be sufficient to maintain a urine output of at least 1200-1500 mL daily.** |

**Medications Reference (APA):**

Jones & Bartlett Learning. (2019). *2019 Nurses Drug Handbook*. Burlington, MA.

## Assessment

### Physical Exam (18 points)

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|---|---|
| **GENERAL (1 point):**<br>**Alertness:**<br>**Orientation:**<br>**Distress:**<br>**Overall appearance:** | Alert and Oriented to person- sometimes time and place.<br>During assessment alert and oriented times 3<br>No distress<br>Overall appearance is normal |
| **INTEGUMENTARY (2 points):**<br>**Skin color:**<br>**Character:**<br>**Temperature:**<br>**Turgor:**<br>**Rashes:**<br>**Bruises:**<br>**Wounds:** .<br>**Braden Score:**<br>**Drains present: Y☐ N ☐**<br>**Type:** | Appropriate for race<br>Warm, moist and pink<br>Turgor intact<br>No rashes<br>Bruises on right leg from the kneecap down the leg. Yellow and purple, from his surgery<br>Scar on his right knee about 6-8 inches long. Had lumbar surgery but would not let me look at the scar.<br>No wounds<br>Braden Score 16<br>No drains present |
| **HEENT (1 point):**<br>**Head/Neck:**<br>**Ears:**<br>**Eyes:**<br>**Nose:**<br>**Teeth:** | Normal cephalic<br>No lymph nodes palpable<br>Trachea is in line<br>No drainage from ears<br>PERRLA, conjunctiva pink and moist<br>No drainage from nose and septum in line<br>Good dentation . |
| **CARDIOVASCULAR (2 points):**<br>**Heart sounds:**<br>**S1, S2, S3, S4, murmur etc.**<br>**Cardiac rhythm (if applicable):**<br>**Peripheral Pulses:**<br>**Capillary refill:**<br>**Neck Vein Distention: Y ☐ N ☐**<br>**Edema Y ☐ N ☐**<br>**Location of Edema:** | S1 and S2 normal<br>No murmur heard<br>Peripheral pulses bilateral times two throughout, no bounding or slowed pulses<br>Capillary refill normal<br>No vein distention present<br>No edema present |
| **RESPIRATORY (2 points):**<br>**Accessory muscle use: Y☐ N ☐**<br>**Breath Sounds: Location, character** | No use of accessory muscles present<br>Good air movement with no adventitious lung sounds bilaterally |

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|---|---|
| **GASTROINTESTINAL (2 points):**<br>**Diet at home:**<br>**Current Diet**<br>**Height:**<br>**Weight:**<br>**Auscultation Bowel sounds:**<br>**Last BM:**<br>**Palpation: Pain, Mass etc.:**<br>**Inspection:**<br>**Distention:**<br>**Incisions:**<br>**Scars:**<br>**Drains:**<br>**Wounds:**<br>**Ostomy: Y ☐ N ☐**<br>**Nasogastric: Y ☐ N ☐**<br>**Size:**<br>**Feeding tubes/PEG tube Y ☐ N ☐**<br>**Type:** | Diet at home is a diabetic<br>Current diet is a diabetic<br>Height 5'8"<br>Weight 171 lbs<br>Bowel sounds normal<br>Last BM was 7/13/2020<br>No pain or masses when palpating<br>There was no distention, incisions, scars or drains present<br>No wounds present<br>No ostomy present<br>No nasogastric present<br>No feeding tube present |
| **GENITOURINARY (2 Points):**<br>**Color:**<br>**Character:**<br>**Quantity of urine:**<br>**Pain with urination: Y ☐ N ☐**<br>**Dialysis: Y ☐ N ☐**<br>**Inspection of genitals:**<br>**Catheter: Y ☐ N ☐**<br>**Type:**<br>**Size:** | Urine color is yellow<br>Character is clear<br>Quantity of urine is 1300 ml residual<br>No pain with urination is present<br>No dialysis<br>Genitals look normal within defined limits<br>Catheter is present. 16 French single lumen |
| **MUSCULOSKELETAL (2 points):**<br>**Neurovascular status:**<br>**ROM:**<br>**Supportive devices:**<br>**Strength:**<br>**ADL Assistance: Y☐ N ☐**<br>**Fall Risk: Y ☐ N☐**<br>**Fall Score:**<br>**Activity/Mobility Status:**<br>**Independent (up ad lib) ☐**<br>**Needs assistance with equipment ☐**<br>**Needs support to stand and walk☐** | Neurovascular status good<br>ROM is a little diminished on the right leg<br>Supportive devices are a walker<br>Strength is diminished on the right leg due to knee surgery, so he uses a walker<br>ADL assistance times two<br>Fall risk<br>Fall score is 40<br>Activity is as tolerated with an assistance of two<br>Mobility is dependent of two<br>Need's assistance with equipment<br>Need's support to stand and walk |
| **NEUROLOGICAL (2 points):**<br>**MAEW: Y ☐ N☐** | Can move all extremities<br>PERRLA intact |

| | |
|---|---|
| **PERLA: Y ☐ N☐**<br>**Strength Equal: Y ☐ N ☐ if no -**<br>**Legs ☐ Arms ☐ Both ☐**<br>**Orientation:**<br>**Mental Status:**<br>**Speech:**<br>**Sensory:**<br>**LOC:** | Strength is not equal throughout, right leg is weaker<br>Orientated times three<br>Mental Status is alert with some confusion but with time he remembers<br>Speech is audible and easily understood<br>Client has glasses<br>No LOC present |
| **PSYCHOSOCIAL/CULTURAL (2 points):**<br>**Coping method(s):**<br>**Developmental level:**<br>**Religion & what it means to pt.:**<br>**Personal/Family Data (Think about home environment, family structure, and available family support):** | Coping method is to sleep and smoke<br>Developmental level is appropriate for age.<br>No practicing religion<br>Client lives alone and likes to talk to his daughter and son when he can get ahold of them. |

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

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|---|---|---|---|---|---|
| 0730 | 102 | 133/84 | 18 | 97.8 | 94% |
| 1330 | 80 | 130/76 | 16 | 97.2 | 96% |

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

| Time | Scale | Location | Severity | Characteristics | Interventions |
|---|---|---|---|---|---|
| 0730 | 0-10 | N/A | 0 | N/A | N/A |
| 1335 | 0-10 | N/A | 0 | N/A | N/A |

**IV Assessment (2 Points)**

| IV Assessment | Fluid Type/Rate or Saline Lock |
|---|---|
| **Size of IV:**<br>**Location of IV:**<br>**Date on IV:** | No IV present because client pulled it out, so it was not placed again. |

| | |
|---|---|
| **Patency of IV:**<br>**Signs of erythema, drainage, etc.:**<br>**IV dressing assessment:** | |

**Intake and Output (2 points)**

| Intake (in mL) | Output (in mL) |
|---|---|
| **480** | **1300 mL residual** |

**Nursing Care**

**Summary of Care (2 points)**

**Overview of care:** Client was dependent during the day, when transferring from the bed to bedside commode. Client watched television and slept most of the day. Client did not experience any pain during clinical time. The client was very mellow and did not need much unless it was to use the bedside commode or move his tray around.

**Procedures/testing done:** Routine labs drawn, a chest x-ray, a x-ray of his right knee, and a CT of his head and brain.

**Complaints/Issues:** Client stated no pain or issues during clinical time.

**Vital signs (stable/unstable):** Vital signs were stable during the day. His blood pressure was a little high, but it was not to the point of major concern. He also has hypertension and they were in close range of each other every time his blood pressure was taken. His oxygen was at 94-96%, but for someone who has COPD, heart disease, and pulmonary disease these ranges would be normal for them. His morning pulse rate was at 102 but he seemed agitated so that would be normal, and it went down for his afternoon vitals.

**Tolerating diet, activity, etc.:** Tolerated a diabetic diet to control his diabetes mellitus. His activities were tolerated, and he walked across the hall with therapy and seemed to do well. When he was transferring from the bed to bedside commode, he was an assist of

two because he was leaning backwards and moving slower to not injury himself. When eating he ate about 75% of each meal he received.

**Physician notifications:** Physician was not notified during clinical time.

**Future plans for patient:** Future plans are for client to get discharged to a facility, but during clinical time there was no new discharge plans setup yet.

**Discharge Planning (2 points)**

**Discharge location:** During clinical time there was no discharge setup yet.

**Home health needs (if applicable):**

**Equipment needs (if applicable):**

**Follow up plan:**

**Education needs:**

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

| Nursing Diagnosis | Rational | Intervention (2 per dx) | Evaluation |
|---|---|---|---|
| • Include full nursing diagnosis with "related to" and "as evidenced by" components | • Explain why the nursing diagnosis was chosen | | • How did the patient/family respond to the nurse's actions?<br>• Client response, status of goals and outcomes, modifications to plan. |

N321 Care Plan

| | | | |
|---|---|---|---|
| **1. Risk for falls related to total knee replacement as evidence by unstable gait.** | **This diagnosis was chosen because the client had knee surgery and when he got up to walk, he was unstable and leaning back to transfer.** | **1.Have the client perform range of motion exercises while in bed.**<br><br>**2. When he wants to get out of bed make sure he calls for help before getting up.** | **The client agreed to call when he wanted to get out of bed to use the bed commode or walk. Also, when I suggested to perform range of motion exercises, he agreed to try some of them. I suggested to bend at the knee as much as he could and straighten his leg back out and he seemed to tolerate it well.** |
| **2. Acute confusion related to altered mental status as evidence by a low sodium level of 126.** | **This was chosen because the client because he seemed very confused at times and when his sodium levels came back, they were low. This could explain why he was alert and oriented times three and when talking to him on 7/13/2020 he was alert and oriented time two to three.** | **1. Suggest foods that are a little higher in sodium while still following a diabetic diet.**<br><br>**2.Drink fluids but do not over do the amount that is taken in.** | **I told the client that drinking fluids was good and that he needed to continue doing so but take his time drinking them. I explained that drinking too much fluid can cause it to dilute the sodium in his body causing his levels to be low and that might be the cause of some of his confusion. I also suggesting eating a little coup may help raise his sodium level to alleviate the low sodium level. He agreed to try those two things at dinner.** |
| **3. Impaired physical mobility related to total knee replacement as evidence by needing assistance to transfer and walk.** | **This was chosen because the client had knee surgery and his strength in his leg was not completely restored. When he got up to transfer, he needed two people to make sure he did not fall or lose his balance** | **1.Call for assistance when wanting to transfer**<br><br>**2. Use a walker to maintain a steady gait and put some of the weight on the walker.** | **The client agreed to call for help so he did not fall. When explaining why he needed to use a walker he understood it was for his safety and wanted to use it so he did not injure himself and back track on his recovery.** |

**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.

**Concept Map (20 Points)**

N321 Care Plan

## Subjective Data

Client stated no pain at a 0 out of 10 throughout the whole day.
He was having trouble urinating without the catheter and he said that he has always had that problem.

## Nursing Diagnosis/Outcomes

**Risk for falls related to total knee replacement as evidence by unstable gait. Outcome- the client called for help when he needed to use the restroom. He also had help walking across the hall and improved how much he leaned back. His ROM exercises were performed one time that I saw, and he did not complain of pain when I asked him.**
**Acute confusion related to altered mental status as evidence by a low sodium level of 126. Outcome- the client understood that he needed to monitor his fluid intake and he was drinking his water slow throughout the day. He also agreed that he would try and eat soup for dinner.**
**Impaired physical mobility related to total knee replacement as evidence by needing assistance to transfer and walk. Outcome- when he used the walker after our talk, he was walking much better. He stood straight up and down and did not lean back. He also used the walker as support.**

## Objective Data

Labs
Platelets- 392
Neutrophils- 69.2
Lymphocytes- 20.9
Sodium- 126
Chloride- 94
Glucose- 105
Creatinine- 1.00
HDL- 30
Triglycerides- 158

Urinalysis
Protein- 2+
Ketones- 2+
WBC- 6-10
RBC- 21-50

Chest x-ray, x-ray, CT of head and brain

Vitals
BP- 133/84
BP- 130/76
Pulse- 102
O2- 94%

## Patient Information

65-year-old Caucasian female
5'8"
171 lbs
Code status- Full
Allergies- keflex
Divorced
Retired -disability
Right knee replacement
Altered mental status- hyponatremia
Smoker- 1.00 packages a day for 20 years

## Nursing Interventions

**Have the client perform range of motion exercises while in bed. When he wants to get out of bed make sure he calls for help before getting up.**
**Suggest foods that are a little higher in sodium while still following a diabetic diet. Drink fluids but do not over do the amount that is taken in.**
**Call for assistance when wanting to transfer. Use a walker to maintain a steady gait and put some of the weight on the walker.**

N321 Care Plan

N321 Care Plan