N431 Care Plan #2

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission	**Patient Initials**	**Age**	**Gender**
3/17/2021	DC	65	F
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	retired	divorced	Penicillin – hives Adhesive bandages Salt cedar – no thyroid
Code Status	**Height**	**Weight**	
Full code	165.1 cm.	52.5 kg	

Medical History (5 Points)

Past Medical History: shortness of breath, elevated cardiac enzymes, Parkinson's disease, schizophrenia, cough, lactic acidosis, rhabdomyolysis, tremors, abdominal pain, altered mental status, impaired skin integrity, risk for infection, autonomic dysfunction, chronic PTSD, CVA, depression, duodenal ulcer, eyelid problem, fall risk, GERD, hearing loss, hemorrhoids, thyroid cancer, hypothyroid, impaired gas exchange, impaired mobility, ductal carcinoma of right breast, insomnia memory loss, physical abuse of adult, urinary urgency, vomiting

Past Surgical History: tonsillectomy, knee (2017), basil cell carcinoma removed on back (2017), lumpectomy- right breast and axillary (2019), total hip arthroplasty (2019), EGD (2021)

Family History: Mother (migraines), Father (hearing problems, heart failure), maternal grandmother (arthritis, breast cancer), sister (Charcot Marie Tooth Syndrome)

Social History (tobacco/alcohol/drugs): Tobacco: patient denies use of tobacco

Alcohol: patient denies use of alcohol

Drugs: Patient denies use of drugs

Assistive Devices: Patient uses a wheelchair

Living Situation: Patient lives at home with her sister

Education Level: Bachelor's degree

Admission Assessment

Chief Complaint (2 points):bronchitis

History of present Illness (10 points): Patient presented to the ER on 3/17 for bronchitis. She had been sick for around two weeks with a nonproductive cough. She also has been feeling short of breath and reports fast heart rate and feeling overheated. She denies any pain currently but has had occasional abdominal pain that is accompanied with decreased appetite and diarrhea. She was placed on 2L of oxygen via nasal cannula after being admitted to the hospital but patient states she does not normally use oxygen at home. Patient has a history of Parkinson's disease. She reports an increase in tremors over the past few weeks and states that her tremors usually worsen when she is sick. She has been taking acetaminophen for fever and using over the counter medications to help with her cough.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Rhabdomyolysis

Secondary Diagnosis (if applicable): Lactic acidosis

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

Pathophysiology

Rhabdomyolysis is caused from a breakdown of muscle tissue which eventually leads to the release of muscle fibers into the blood (Latif & Zieve, 2019). These muscle fibers are dangerous to the kidneys and result in kidney damage. Whenever muscles are damaged, proteins called myoglobin are released into the bloodstream (Latif & Zieve, 2019). The kidneys job is to filter the myoglobin out of the body (Latif & Zieve, 2019). However, the breakdown of myoglobin produces substances that are harmful to kidney cells (Latif & Zieve, 2019). Increased

myoglobin breakdown eventually leads to rhabdomyolysis (Latif & Zieve, 2019). This is typically caused by injury or health conditions that damage skeletal muscle. This can include traumas, drug use, genetic muscle diseases, extremes of body temperature, ischemia or muscle tissue death, low phosphate levels, seizure, muscle tremors, severe muscle exertion, long surgical procedures, and dehydration (Latif & Zieve, 2019). This patient reported an increase in tremors which can attribute to the development of rhabdomyolysis. The patient also has Parkinson's disease which affects muscles throughout the body and impairs kidney function.

Signs and Symptoms

A hallmark symptom of rhabdomyolysis is muscle stiffness and pain, also known as myalgia (Latif & Zieve, 2019). Other symptoms include dark red urine, decreased urine output, weakness, and muscle tenderness (Latif & Zieve, 2019). Throughout my time at clinical, this patient had no urine output. Fatigue, joint pain, seizures, and weight gain are also symptoms that accompany the disease (Latif & Zieve, 2019). There is triad of symptoms that indicate rhabdomyolysis. The triad includes myalgia, generalized muscle weakness, and dark red urine (Hinkle & Cheever, 2018). Increased serum creatinine kinase is a sensitive indicator or the disease as well (Hinkle & Cheever, 2018). A level above 600 helps to diagnose rhabdomyolysis (Hinkle & Cheever, 2018). Upon admission to the hospital this patient's serum creatinine kinase level was 607.

Expected Findings and Diagnostics

A patient with rhabdomyolysis will display tender and damaged skeletal muscles during examination (Latif & Zieve, 2019). Diagnostic tests ordered include creatinine kinase, serum calcium, serum myoglobin, serum potassium, urinalysis, and urine myoglobin test (Latif & Zieve, 2019). Serum creatinine and urine creatinine levels are potentially affected as well (Latif

& Zieve, 2019). Another important lab to monitor is lactic acid (Hinkle & Cheever, 2018). A level below 2.5 indicates improvement of the disease (Hinkle & Cheever, 2018). Upon admission, the patient's lactic acid level was 3.8. The most recent value is 0.8 indicating improvement in the disease. She also had decreased serum creatinine levels. As stated in the above paragraph, her CK levels were extremely elevated upon admission. She still showed elevated CK levels with her most current lab values.

Treatment

Treatment relies heavily on the amount of damage to the kidneys. Acute kidney damage is typical in patients with rhabdomyolysis (Latif & Zieve, 2019). Early detection reduces the risk of permanent kidney damage (Latif & Zieve, 2019). Fluids containing bicarbonate help to prevent further kidney damage (Latif & Zieve, 2019). If damage to the kidneys is severe enough patients may require dialysis (Latif & Zieve, 2019). Other medications such as diuretics, potassium, and calcium are typically prescribed as well (Latif & Zieve, 2019). This patient was started on fluids upon admission. She was also placed on O2 to improve her oxygen saturation and feeling short of breath.

Pathophysiology References (2) (APA):

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

Latif, W., & Zieve, D. (2019). *Rhabdomyolysis: Medlineplus medical encyclopedia*. Retrieved March 24, 2021, from https://medlineplus.gov/ency/article/000473.htm

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	3.9 – 5.0	4.07	3.71	A decreased red blood cell count is attributed to many things including chronic illness, dietary sufficiency, and anemia (Capriotti & Frizzell, 2016). This patient suffers from Parkinson's which is a chronic disease. She has also been experiencing nausea, vomiting, and diarrhea which can lead to dietary insufficiency. The patient was placed on NPO status as well due to coughing and aspiration risks attributing to dietary insufficiency as well.
Hgb	12.0-15.5	12.6	11.6	Anemia, nutritional deficiency, and kidney disease result in low hemoglobin levels (Capriotti & Frizzell 2016). Low hemoglobin levels due to kidney disease from rhabdomyolysis would likely be seen during admission. However, she is most likely experiencing anemia and nutritional deficiency from nausea, vomiting, and diarrhea and being placed on NPO status.
Hct	35-45%	37.5	33.6	Anemia and nutritional deficiency are reasons for low hematocrit levels (Carpriotti & Frizzell, 2016). This patient is likely experiencing anemia and nutritional deficiency from being placed on an NPO status and experiencing nausea, vomiting, and diarrhea.
Platelets	150,000-500,00	243,000	207,000	Normal lab value
WBC	4,500 – 11,000	6,100	4,300	Dietary deficiency is a cause for decreased white blood cell count (Capriotti & Frizell. 2016). The patient was placed on NPO status for coughing and risk for aspiration. She was also experiencing nausea, vomiting, and diarrhea. All these

				factors are likely to lead to nutritional deficiency.
Neutrophils	45.3-79%	63.6	55.4	Normal lab value
Lymphocytes	11.8-45.9%	25.8	29.4	Normal lab value
Monocytes	4.4-12.0%	9.0	10.4	Normal lab value
Eosinophils	0.0-6.3%	1.2	4.3	Normal lab value
Bands	0.0-5.0%	3.9	2.0	Normal lab value

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	137	137	Normal lab value
K1	3.5-5.0	4.6	3.9	Normal lab value
Cl-	98-108	101	104	Normal lab value
CO2	22-29	26	25	Normal lab value
Glucose	70-100	90	91	Normal lab value
BUN	8-25	22	9	Normal lab value
Creatinine	0.6-1.2	0.74	0.50	Low creatinine levels are due to debilitation and decreased muscle mass (Capriotti & Frizzell, 2016). The patient is on complete bed rest and has a diagnosis of Parkinson's. Both of these cause debilitations and a decrease of muscle mass.
Albumin	3.5-5.0	4.2	3.7	Normal lab value
Calcium	8.6-10.4	10.0	8.6	Normal lab value
Mag	1.6-2.4	NA	2.0	NA
Phosphate	2.5-4.5	NA	NA	NA

Bilirubin	0.0-1.2	0.7	0.6	Normal lab value
Alk Phos	35-105	105	84	Normal lab value
AST	0-35	24	13	Normal lab value
ALT	24-36	4	<3	Low ALT levels are generally good and not concerning (Capriotti & Frizzell, 2016). However, there are some health conditions that result in low ALT levels include declining kidney function and poor nutrition (Capriotti & Frizzell, 2016). This patient's kidney function was affected because of rhabdomyolysis.
Amylase	30-110	NA	NA	NA
Lipase	12-70	NA	NA	NA
Lactic Acid	0.5-2.2	3.8	0.8	The patient was diagnosed with lactic acidosis, which is an increased level of lactic acid in the body. This is likely due to the patient experiencing tissue ischemia from rhabdomyolysis (Capriotti & Frizzell, 2016)
Troponin	0-0.4	<0.010	0.010	Normal lab value
CK-MB	0-4.9	13.76	3.35	Increased levels of CK-MB are results of cardiac issues (Capriotti & Frizzell, 2016). The patient has a history of elevated cardiac enzymes and presented to the ER with feelings of increased heart rate.
Total CK	22-198	607	281	Total CK elevation is a result of injury to skeletal muscle (Capriotti & Frizzell, 2016). Rhabdomyolysis causes injury to skeletal muscle.

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal

INR	0.86-1.14	NA	NA	NA
PT	11.9-15	NA	NA	NA
PTT	25-40	NA	NA	NA
D-Dimer	<500	0.73	NA	Normal lab value
BNP	0-99	50	NA	Normal lab value
HDL	40-80	NA	NA	NA
LDL	65-125	NA	NA	NA
Cholesterol	<170	NA	NA	NA
Triglycerides	50-150	NA	NA	NA
Hgb A1c	<6%	NA	NA	NA
TSH	0.5-5	NA	NA	NA

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	Yellow/clear	Yellow/clear	NA	Normal lab value
pH	5.0-8.0	5.5	NA	Normal lab value
Specific Gravity	1.005-1.034	1.034	NA	Normal lab value
Glucose	Normal	Normal	NA	Normal lab value
Protein	Negative	Trace	NA	Proteinuria is an indication of kidney disease (Capriotti & Frizzell, 2016). The patient was likely experiencing kidney disease due to rhabdomyolysis.
Ketones	Negative	Negative	NA	Normal lab value
WBC	<5	4	NA	Normal lab value
RBC	0-4	22	NA	Increased RBC levels in urine can be caused by renal stones (Capriotti & Frizzell, 2018). The

				abdominal CT showed both a kidney stone and a cyst in the kidney.
Leukoesterase	Negative	Negative	NA	Normal lab value

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35-7.45	7.4	7.49	The patients increased pH level is possibly due to her bronchitis because it is considered a pulmonary disease which will increase pH levels (Capriotti & Frizzell, 2016).
PaO2	80-100	33	208	This patient was placed on 2L O2 when she arrived at the ER due to low SaO2 levels. She does not normally require O2 at home so her drastically increased PaO2 level is due to over oxygenation from being placed on oxygen for longer than her body needs (Capriotti & Frizzell, 2016).
PaCO2	35-35	41.1	27.8	Increased PaCO2 levels are attributed to issues like bronchitis, which is what the patient reported to the ER with (Capriotti & Frizzell, 2016). Her current PaCO2 levels decreased to below normal levels. This can be attributed to her being in pain or having anxiety, as well as an overcorrection of her oxygen levels with the 2L of O2 being provided through her nasal cannula (Capriotti & Frizzell, 2016).
HCO3	22-26	24.8	NA	Normal lab value
SaO2	95-100	64.4	99.7	The patient presented to the hospital with complaints of feeling short of breath. Her low SaO2 levels are in relation to having

				difficulties breathing and not providing enough oxygen to the blood cells (Capriotti & Frizzell, 2016). After she arrived to the ER she was placed on 2L O2 which helped to bring her oxygen stats back to normal.

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	NA	NA	NA
Blood Culture	Negative	NA	NA	NA
Sputum Culture	Negative	NA	NA	NA
Stool Culture	Negative	NA	NA	NA

Lab Correlations Reference (1) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* F.A. Davis Company.

Sarah Bush Lincoln. (2020). Laboratory values. *Cerner PowerChart.* Cerner

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

1. CT-abdomen with contrast: Results showed a 3 mm non obstructing renal calculus, minimal right renal pelvicaliectasis, and a left ovarian cyst.
2. Chest xray: This test showed mild heart enlargement with perihilar interstitium, streaky left midlung scarring, left upper chest port

3. EGD: Results showed gastritis, few polyps, duodenal bulb ulcer, duodenitis, and a hiatal hernia.
4. 12 lead EKG: This test showed sinus bradycardia, ST & T wave abnormality, and a short QT wave
5. US venous duplex: This test showed normal blood flow and compressibility. There was no evidence of intraluminal filling defect.

Diagnostic Test Correlation (5 points):

1. CT- abdomen with contrast: This test was ordered because the patient had abdominal pain and diarrhea. Abdominal CT allows providers to get a better look at the abdomen to identify what is causing the pain and diarrhea the patient is suffering from. It visualizes structures such as organs, blood vessels, and bones in the abdomen (Hinkle & Cheever, 2018).
2. Chest x-ray: This test was ordered because the patient was short of breath and had bronchitis. A chest x-ray is often ordered when patients are experiencing cardiac or respiratory problems. The x-ray visualizes the heart, lungs, and their surrounding structures to detect any abnormalities such as tumors, inflammation, and accumulation of fluid or air (Hinkle & Cheever, 2018).
3. EGD: This test was ordered for nausea, vomiting, and abdominal pain. An EGD uses and endoscope to look at the esophagus, stomach, and first part of the small intestine (Hinkle & Cheever, 2018). This helps to determine the causes of symptoms pertaining to the upper GI tact such as nausea, vomiting, and abdominal pain.
4. 12 lead EKG: This test was ordered because the patient was tachycardic. An electrocardiogram (EKG) graphs the heart and its different cycles (Hinkle & Cheever,

2018). It helps to diagnose conditions affecting the heart that present themselves through arrhythmias, wave patterns, increased or decreased intervals durations, and heart rate (Hinkle & Cheever, 2018).

5. US Venous duplex: This test was ordered because the patient had an elevated d-dimer. An ultrasound venous duplex uses sound waves to look inside the patients legs (Hinkle & Cheever, 2018). It used to identify blood clot or other abnormalities that cause issues like increased d-dimer levels or shortness of breath (Hinkle & Cheever, 2018).

Diagnostic Test Reference (1) (APA):

Hinkle, J. L. & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins

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

Home Medications (5 required)

Brand/Generic	Aspirin/ acetylsalicylic acid	Lipitor/ atorvastatin	Vitamin D3/ cholecalciferol	Mag-200/ magnesium oxide	Oleptro/ trazodone hhydrochloride
Dose	81 mg	40 mg	10 mcg	400 mg	25 mg
Frequency	Daily	Daily	Daily	Daily	HS
Route	PO	PO	PO	PO	PO
Classification	Chemical: salicylate Therapeutic: anti-inflammatory, antiplatelet, antipyretic,	Chemical: synthetically derived fermentation product Therapeutic: antihyperlipi	Chemical: Secosteroid Therapeutic: Vitamin	Chemical: Cation, electrolyte Therapeutic: antacid, antiarrhythmic, anticonvuls	Chemical: triazolopyridine derivative Therapeutic: antidepressant

	nonopioid analgesic	demic		ant, electrolyte replacement, laxative	
Mechanism of Action	Blocks cyclooxygenase which takes part in mediating inflammatory response by causing vasodilation, swelling, and pain. It also inhibits platelet aggregation by preventing the production of thromboxane.	Reduces plasma cholesterol and lipoprotein levels by inhibiting cholesterol synthesis in the liver. It also increases the amount of LDL receptors on liver cells resulting in better LDL uptake.	It is generated in the skin through sun exposure and is converted to an inactivated vitamin D molecule. It is activated through a twostep process called hydroxylation before it is activated. Once activated it increases bone mineral density and phosphate secretion.	The magnesium reacts with water converting magnesium oxide to magnesium hydroxide. Magnesium hydroxide reacts with gastric acid to help increase gastric pH.	Blocks serotonin reuptake causing a antidepressant effect. Exerts alpha adrenergic blocking action and produces modest histamine blockade causing a sedative effect. It also prevents the vasopressor response to norepinephrine to reduce blood pressure.
Reason Client Taking	To prevent or reduce severity of ischemic attacks, strokes, or heart attacks	High cholesterol	Improve musculoskeletal health	Antacid	Major depression
Contraindications (2)	Allergy to tartrazine dye Bleeding problems such as hemophilia	Active hepatic disease Unexpected rise in serum transaminase level	Pregnant women Vitamin D toxicity	Hypersensitivity to magnesium salts Acute abdominal problems	Recovery from acute MI Use within 14 days of an MAO inhibitor.
Side Effects/Adverse Reactions (2)	Stomach pain, diarrhea	Rhabdomyolysis, diarrhea	Hypercalcemia, hypercalciuria	Muscle cramps, dyspnea	Prolonged QT interval, abdominal pain

Nursing Considerations (2)	Do not crush time release or control release tablets unless directed. Use immediate release aspirin in situations where a rapid onset of action is required such as in the treatment of MI or before percutaneous coronary intervention.	This medication should not be used on patients who take cyclosporine, gemfibrozil, tipranavir, ritonavir, or telaprevir because it increases the risk of rhabdomyolysis. Monitor patients blood glucose levels because this medication can affect blood glucose control.	Watch out for symptoms of hypercalcemia including weakness, fatigue, headache, anorexia, dry mouth, metallic taste, nausea, vomiting, diarrhea, muscle pain, bone pain, irritability. Avoid administering magnesium containing antacids.	Avoid giving other oral drugs within 2 hours of magnesium containing antacid. The drug is not metabolized therefore any remaining amount left in the GI tract results in water stool within 30 minutes to 3 hours.	Use cautiously in patients with cardiac disease because it can cause arrythmias. Give medication at bedtime if drowsiness occurs.
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Monitor patients bleeding times.	Liver function tests should be performed.	Monitor patient's alkaline phosphate, BUN, creatinine ratio, calcium, magnesium, and phosphate levels.	Monitor serum electrolyte levels. Frequently assess cardiac status if the patient is taking other medications to lower heart rate	Monitor patients closely for serotonin syndrome. Monitor patient for suicidal thoughts or tendencies.

				such as beat blockers.	
Client Teaching needs (2)	Adult patients who are taking low dose aspirin should not take ibuprofen because it can reduce the cardioprotective and stroke. preventive effects of aspirin. Instruct patient to take aspirin with food or after meals to prevent GI upset.	The medication should be taken at the same time every day to help maximize its it effects. Immediately notify provider if unexplained muscle tenderness, pain, weakness, fatigue, or fever develop.	Do not take more than the recommended amount. It is important to follow the recommended diet from physician.	Take magnesium antacid between meals and at bedtime. To prevent constipation while taking this medication, increase dietary fiber, fluid intake, and exercise regularly.	Avoid taking the medication on an empty stomach because it can increase the risk of dizziness or light headedness. Do no abruptly stop taking trazodone

Hospital Medications (5 required)

Brand/ Generic	Lovenox/ enoxaparin sodium	Sinemet/ levodopa-carbidopa	Protonix/ pantoprazole sodium	Levoxyl/ levothyroxine	ProAmatine/ midodrine
Dose	40 mg	275 mg	40 mg	88 mcg	10 mg
Frequency	Daily	BID	Daily	Daily	TID
Route	SQ injectable	PO	IV push	IV push	PO
Classification	Chemical: low molecular weight heparin Therapeutic:	Chemical: decarboxylase inhibitor Therapeutic:	Chemical: PPI Therapeutic: Antiulcer drug	Chemical: thyroid hormone Therapeutic: thyroid hormone	Chemical: alpha1 agonist Therapeutic: vasopressor, antihypertensive

	antithrombotic	Antiparkinsonian drug		replacement	
Mechanism of Action	Allows antithrombin III to work by binding with it, allowing inactivation of clotting factors. It prevents fibrinogen from converting to fibrin which prevents clots from forming.	Levodopa is a precursor to dopamine. It crosses the blood brain barrier and converts into dopamine, helping to relieve the symptoms of Parkinson's.	Inhibits proton pump activity by binding to hydrogen potassium adenosine triphosphatase which helps to suppress gastric acid secretion.	Synthetic form of thyroxine that affects the growth of tissues, energy expenditure, and turnover or substrates.	Constricts the blood vessels to help increase blood pressure.
Reason Client Taking	Blood clot prevention	Parkinson's	GERD	Hypothyroidism	Low blood pressure
Contraindications (2)	Active or major bleeding History of HIT or immune mediated HIT	MAO inhibitors Patients with narrow-angle glaucoma	Individuals with osteoporosis Hypersensitivity reactions to pantoprazole or its components	Use cautiously in elderly patients and those with angina pectoris, HTN, other CV disorders, renal insufficiency, or ischemia. Use cautiously in patients with diabetes mellitus, diabetes insipidus, or myxedema	Severe heart disease, overactive thyroid, adrenal gland tumor, kidney disease, or if you are unable to urinate on your own. It causes an increase in blood pressure. It should only be taken for severely low blood pressure that affects every day life.

				and during rapid replacement in those with arteriosclerosis	
Side Effects/ Adverse Reactions (2)	Nausea, hematuria	Duodenal ulcer, nausea	Abdominal pain, bronchitis	Tremor, tachycardia	Nausea, dizziness
Nursing Considerations (2)	Do no give drug by IM injection. Use cautiously in patient with renal impairment or insufficiency.	The medication can turn saliva, urine, or sweat dark in color and garments may be discolored. The medication should be administered at regular intervals according to a specific schedule created by the physician.	Symptomatic response to drug therapy does not mean there is gastric malignancy. If signs and symptoms of SLE are noted, discontinue the drug and refer to specialist.	Patients with adult hypothyroidism are unusually sensitive to thyroid hormones. Star at the lowest dosage and adjust to higher dosages according to the patient's symptoms and lab values until the recommended state is reached. Patients taking anticoagulants may need their dosage modified and require careful monitoring of coagulation status.	Monitor orthostatic blood pressures in patients taking this medication. Do no administer at the same time with other drugs that slow heart rate such as digoxin or beta blockers.
Key Nursing Assessment(s)/Lab(s) Prior to Administrati	Monitor bleeding and clotting times.	Hepatic, renal, and cardiovascular function should be	Monitor magnesium levels because prolonged use	Evaluate serum TSH levels and adjust if needed.	Monitor blood pressure before taking this medication.

on		assessed before starting drug therapy. Signs and symptoms of overdose are muscle twitching and blepharospasm.	can cause decreased levels. Signs and symptoms of low magnesium levels include abnormal heart rate, palpitations, muscle spasms, tremors, or seizures.		
Client Teaching needs (2)	Advise patient to notify provider about adverse reactions, especially bleeding. Taking aspirin or other NSAIDS can increase the risk for bleeding. Do not rub the site after injection to help minimize bruising.	The drug has a wearing off effect at the end of the dosing interval. Excessive acidity in the patient's diet delays the absorption of levodopa within the body.	The drug can be taken with or without meals. Report all adverse reactions and recognize and report signs and symptoms of low magnesium levels.	It is important to stay compliant and take the drug at the same time every day to help maintain constant hormone levels and prevent insomnia. Replacement therapy is usually needed for life and drug therapy should never be stopped unless recommended by the provider.	Avoid taking with other drugs that increase blood pressure. The drug should be taken no later than 6 pm or within 3-4 hours before bedtime.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2019). *Nurses drug handbook*

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** alert **Orientation:** client is oriented self, location, and situation but not time **Distress:** no distress noted **Overall appearance:**	The patient was ANO x 3. She was oriented to self, location, and situation but not to time. She was able to respond to questions when asked and did not seem to be in distress. Her overall appearance was appropriate for her age.
INTEGUMENTARY (2 points): **Skin color:** appropriate for ethnicity **Character:** dry, intact **Temperature:** warm **Turgor:** good **Rashes:** No **Bruises:** No **Wounds:** No **Braden Score:** 13 **Drains present: Y☐ N ☒** **Type:**	Braden score: 13 (Mild risk) The patient's skin was normal for her ethnicity and is intact. Upon palpation it was warm and dry with elastic turgor. No rashes, bruises, or wounds present. The skin on her bottom is reddened and blanchable but intact. She does not have any drains. She has a surgical scar on her right breast from a lumpectomy.
HEENT (1 point): **Head/Neck:** Head is normocephalic. Trachea is midline. Oral mucosa is moist and intact. Uvula is midline. Not tonsil exudate noted. **Ears:** Tympanic membrane pearly grey bilaterally **Eyes:** PERRLA. No drainage noted bilaterally. **Nose:** Septum is midline. No epistaxis **Teeth:** All teeth were intact.	The patients head was normocephalic. Trachea and uvula were midline. Oral mucosa was pink, moist and intact. There was no tonsil exudate noted. Tympanic membranes were pearly grey, intact, and without drainage bilaterally. Pupils were equal, round, reactive to light, and accommodate. Septum was midline with no notice of epistaxis. All teeth were intact with no abnormalities noted.
CARDIOVASCULAR (2 points): **Heart sounds:** S1 and S2 present **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** normal rate and rhythm **Peripheral Pulses:** Radial and pedal pulses 3+ bilaterally **Capillary refill:** less than 3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒**	S1 and S2 were auscultated with a normal rate and rhythm. Radial and pedal pulses were noted at 3+ bilaterally. Capillary refill was less than 3 seconds bilaterally in the upper extremities. No jugular vein distention noted. The patient did not have any edema.

Location of Edema:	
RESPIRATORY (2 points): **Accessory muscle use:** **Y☐** **N ☒** **Breath Sounds: Location, character:** 18 breaths per minute with normal rhythm. No accessory muscle use. Regular breath sounds in all 4 lobes both posterior and anterior bilaterally.	The patient had a normal respiratory rate at 18 breaths per minute. She displayed no signs of accessory muscle use. Regular breath sounds were noted in all posterior and anterior lobes bilaterally. Respirations were regular in rhythm and appeared no labored. Cough noted while eating. SpO2 is 99% on room air.
GASTROINTESTINAL (2 points): **Diet at home:** Pureed **Current Diet:** NPO **Height:** 165.1 cm **Weight:** 52.4 kg **Auscultation Bowel sounds:** Bowel sounds were active in all 4 quadrants **Last BM:** 3/17/21 **Palpation: Pain, Mass etc.:** Abdomen was soft to the touch. Client denied pain on palpation. No masses felt. **Inspection:** **Distention:** non-distended **Incisions:** No **Scars:** No **Drains:** No **Wounds:** No **Ostomy:** **Y ☐** **N ☒** **Nasogastric:** **Y ☐** **N ☒** **Size:** **Feeding tubes/PEG tube** **Y ☐** **N ☒** **Type:**	The patient is on a pureed diet at home. Her meds must be crushed in order to be able to take them. She was recently placed on an NPO diet due to coughing while she was eating. She had a swallow evaluation performed during clinical and passed. They determined that she is not aspirating her food when she coughs. When she is given food orally she does not chew her food, but mashes it with her tongue. She is 165.1 cm and 52.4 kg. Bowel sounds were present in all 4 quadrants. Her last bowel movement was on 3/17/2021. Her abdomen was soft with no distention, incisions, scars, drains, or wounds. The patient had no ostomy, NG tube, or feeding tubes present. No discomfort was noted during assessment.
GENITOURINARY (2 Points): **Color:** yellow **Character:** clear **Quantity of urine:** not available **Pain with urination:** **Y ☐** **N ☒** **Dialysis:** **Y ☐** **N ☒** **Inspection of genitals:** **Catheter:** **Y ☒** **N ☐** **Type:** Pure wick **Size:**	The patient's urine was yellow and clear. She is incontinent and had a pure wick catheter placed. Quantity of urine could not be measured during clinical. She denies any pain with urination. There was no bladder distention noted. Patient was not on dialysis.
MUSCULOSKELETAL (2 points):	Fall score: 55 (high risk)

Neurovascular status: Patient was alert and oriented to self, location, and situation but not to time. **ROM:** Patient had full range of motion bilaterally in the upper extremities, but limited range of motion in both lower extremities. **Supportive devices:** Wheelchair **Strength:** She had 3/5 strength in her upper extremities bilaterally. 2/5 strength in her lower extremities bilaterally. **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** 55 **Activity/Mobility Status:** patient was placed on bedrest. She takes 2-3 people to ambulate if needed. **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☒ **Needs support to stand and walk**☒	She was able to perform full range of motion with her upper extremities, bilaterally, but had limited range of motion with her lower extremities on both sides. She was displaying tremors which affected both sides of her upper and lower extremities. Patient needs assistance to complete activities of daily living. She was placed on bed rest, but it takes 2-3 people to ambulate her when needed. She needs full assistance with her equipment and to stand or walk.
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☒** **Orientation:** ANO x 3 **Mental Status:** Her cognition was appropriate for her age. She was able to answer all questions asked of her. **Speech:** Clear **Sensory:** Intact **LOC:** Aler	The patient was able to move all 4 extremities but had little control over them due to her tremors. Her pupils were equal, round, reactive to light, and accommodate. She displayed 3/5 strength bilaterally in her upper extremities and 2/5 strength bilaterally in her lower extremities. Patient was ANO x 3. She was oriented to self, location, and situation but not to time. She displayed appropriate cognition and was able to answer all questions she was asked. Her speech was clear and sensorium intact.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** She uses family to help cope. **Developmental level:** Appropriate for age. **Religion & what it means to pt.:** She is a Christian but hasn't participate in her faith for many years. **Personal/Family Data (Think about home environment, family structure, and available family support):** lives with her sister who helps take care of her.	The patient states that she uses her family to help her cope. She lives with her sister who helps to take care of her. Her developmental level is appropriate for her age. Patient states that she is Christian, however, she hasn't been to church in years.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1340	74	112/56	18	36.0	99%
1530	75	124/67	20	36.6	100%

Vital Sign Trends: Overall, her vital sign trends were within normal limits. Her blood pressure taken at 1340 showed slightly decreased diastolic levels, however by the next set of vitals at 1530 it had improved. Her systolic pressure at 1530 was slightly elevated, but nothing too concerning.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1340	Number	Patient denies pain	0/10	Patient denies pain	No intervention needed
1520	Number	Patient denies pain	0/10	Patient denies pain	No interventions needed

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	This patient had a port on her left chest. The date on the bandage was 3/17/2021. The dressing was dry, intact and clean. She was hooked up to D5W fluids.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)

The patient was on NPO status.	There was no output during clinical.

Nursing Care

Summary of Care (2 points)

Overview of care: After report, the patient was taken down for her swallow evaluation. The evaluation took a little over an hour. Physical therapy worked with the patient for a little bit and tried to sit her up on the side of the bed. A new pure wick was placed using clean technique and suction was maintained. Vitals were taken at 1340 and partial head to toe assessment was performed. The patient was administered her remaining medications that could not be provided through IV while she was placed on NPO status. Around 1500 the head to toe assessment was completed and final vitals were taken.

Procedures/testing done: The patient had a swallow evaluation done. It was determined that even though she coughs with every bite of food there is no aspiration.

Complaints/Issues: The patient is displaying some worrisome symptoms related to her Parkinson's disease. Especially regarding her ability to consume food. There are discussions between her healthcare provider and the family about whether to place a feeding tube or put her on hospice.

Vital signs (stable/unstable): Vital signs were stable overall other than some slightly decreased and elevated blood pressure levels.

Tolerating diet, activity, etc.: The patient was switched from NPO to puree foods during clinical. She coughs while eating but is not aspirating. Physical therapy sat her up on the side of the bed, but it took two people to assist her.

Physician notifications: The physician was notified about the results of the swallow study.

Future plans for patient: The next step for this patient is to increase her oral intake as tolerated. Her healthcare team is determining the benefits of placing a feeding tube. She has limited intake and is not able to chew her food. There is also discussions about placing her on hospice as well.

Discharge Planning (2 points)

Discharge location: After discharge, the patient will go home to her sisters house.

Home health needs (if applicable): Physical therapy will be indicated for this patient. She requires heavily on her sisters help. Home health care may be necessary if her sister is unable to take care of her growing needs.

Equipment needs (if applicable): This patient requires a wheelchair.

Follow up plan: She will need to follow up with both her primary care provider and her neurologist after discharge.

Education needs: If a feeding tube is placed, the patient and her sister will need educated on how to care for it. It may be best to meet with a nutritionist as well to ensure she is getting all of the nutrients her body needs. If hospice is determined to be the best option for the patient she will need educated on hospice as well. It may be best to set up a meeting with the individuals who will be providing the hospice services.

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"	• Explain why the nursing diagnosis was chosen		• How did the patient/family respond to the nurse's actions?

components			• Client response, status of goals and outcomes, modifications to plan.
1. Fluid volume deficit related to compromised regulatory mechanism as evidence by rhabdomyolysis, nausea, and shortness of breath.	The patient had rhabdomyolysis which compromises the bodies ability to regulate itself due to tissue ischemia and an increase of myoglobin in the kidneys.	**1.** Closely assess and document I & O. **2.** Monitor the patient for complaints of lightheadedness, poor skin turgor, hypotension, postural hypotension, tachycardia, and decreased CVP	**Goal:** The goal is to improve the patient's overall fluid volume status by providing necessary fluids and keeping an eye out for symptoms that indicate excess volume depletion. The patient was notified of the symptoms.
2. Imbalanced nutrition: less than body requirements related to chewing deficits and weakness as evidence by inability to chew food and decreased desire to consume foods.	The patient was placed on an NPO status due to her consistent coughing while eating. She has also decreased oral consumption due to nausea and lack of desire to eat.	**1.** Assess ability to cough and swallow, and gag reflexes before all meals. Keep suction equipment at bedside if indicated. **2.** Assess food preferences and offer small, frequent servings of nutritious food. Plane meals for times when the patient is rested.	**Goal:** The goal is to increase the patient's oral intake as tolerated. Providing her food at times when she is not tired as well as foods she is able to easily consume. The patient understands the importance of improving her nutrition.
3. Risk for impaired skin integrity related to decreased mobility from bed rest as evidence by blanchable erythema on	The patient is placed on bed rest and spends most of her time laying in the bed. She currently has a blanchable red area on her bottom and is	**1.** Ensure that the patient turns frequently (at least every 2 hours) **2.** Get patient out of bed as often as possible. Liberally use	**Goal:** Make sure that the patient is turned at least every two hours. Also try to get her out of the bed as often as she can handle. Patient understands the importance of keeping weight off her

bottom	incontinent as well.	mechanical lifting devices to aid in safe patient transfers. If patient is unable to get out of bed, assist with position changes.	bottom to improve the blanchable red area.
4. Impaired physical mobility related to Parkinson's disease as evidence by tremors, bed rest, and decreased strength and range of motion in lower extremities.	The patient has a diagnosis of Parkinson's disease. She was displaying increased tremors which were limiting her mobility. She was also placed on bedrest once admitted to the hospital.	**1.** Assess mobility and movements to help tailor interventions to meet specific needs. **2.** For patients that are having difficulty initiating movement, teach them measures that may help.	**Goal:** The goal is to increase the patient's physical mobility from the previous day. Physical therapy can teach the patient skills such as rocking back and forth to initiate movements. The patient understands the importance of increasing her physical mobility and agrees to working with physical therapy.

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*. Elsevier.

Concept Map (20 Points):

Subjective Data

"bronchitis"
"tremors have increased"
"nonproductive cough"
"Short of breath"
"no pain"
"sweaty"
"fast heart rate"
"Decreased appetite"
"Diarrhea"

Objective Data

Decreased lab values: RBC, Hct, Hgb, WBC, Creatinine, ALT
Increased lab values: lactic acid, CK-MB, total CK
Proteinuria & hematuria
CT showed renal calculi and cyst
Normal chest x-ray and UV duplex
Braden: 15 Fall: 55
64.4 SaO2 on admission
Current vitals P: 74, BP: 112/56, O2: 99%, Temp: 36.0

Patient Information

Admit Date: 3/17/2021
Age: 65
Gender: Female
History: Parkinson's disease, rhabdomyolysis, lactic acidosis, tremors, fall risk
Height: 165.1 cm
Weight: 66.2 kg

She presented to the ER with bronchitis and complained of being SOB but was not on any O2. She denies any pain but feels tachycardic, and sweaty. She has also has a decreased appetite and diarrhea.

Fluid volume deficit related to compromised regulatory mechanism as evidence by rhabdomyolysis, nausea, and shortness of breath.
Goal: The goal is to improve the patient's overall fluid volume status by providing necessary fluids and keeping an eye out for symptoms that indicate excess volume depletion.
Imbalanced nutrition: less than body requirements related to chewing deficits and weakness as evidence by inability to chew food and decreased desire to consume foods.
Goal: The goal is to increase the patient's oral intake as tolerated. Providing her food at times when she is not tired as well as foods she is able to easily consume.
Risk for impaired skin integrity related to decreased mobility from bed rest as evidence by blanchable erythema on bottom
Goal: Make sure that the patient is turned at least every two hours. Also try to get her out of the bed as often as she can handle.
Impaired physical mobility related to Parkinson's disease as evidence by tremors, bed rest, and decreased strength and range of motion in lower extremities.
Goal: The goal is to increase the patient's physical mobility from the previous day. Physical therapy can teach the patient skills such as rocking back and forth to initiate movements.

Nursing Interventions

Nursing diagnosis 1:
Closely assess and document I & O.
Monitor the patient for complaints of lightheadedness, poor skin turgor, hypotension, postural hypotension, tachycardia, and decreased CVP
Nursing diagnosis 2:
Assess ability to cough and swallow, and gag reflexes before all meals. Keep suction equipment at bedside if indicated.
Assess food preferences and offer small, frequent servings of nutritious food. Plane meals for times when the patient is rested
Nursing diagnosis 3:
Ensure that the patient turns frequently (at least every 2 hours)
Get patient out of bed as often as possible. Liberally use mechanical lifting devices to aid in safe patient transfers. If patient is unable to get out of bed, assist with position changes.
Nursing diagnosis 4:
Assess mobility and movements to help tailor interventions to meet specific needs.
For patients that are having difficulty initiating movement, teach them measures that may help.