

N431 Care Plan #2

Lakeview College of Nursing

Katie Finn

**Demographics (3 points)**

<b>Date of Admission</b> 7/4/22	<b>Client Initials</b> NN	<b>Age</b> 74 years old	<b>Gender</b> Female
<b>Race/Ethnicity</b> Caucasian	<b>Occupation</b> Retired	<b>Marital Status</b> Widow	<b>Allergies</b> Ofloxacin – severe itching Methimazole – vomiting Nalbuphine – vomiting Prednisone – psychosis
<b>Code Status</b> Full Code	<b>Height</b> 168 cm	<b>Weight</b> 67.4 kg	

**Medical History (5 Points)**

**Past Medical History:** Dates unknown for diagnoses: abdominal aortic aneurysm, chronic migraines, history of pulmonary embolism, hypertension, hyperthyroidism, major depressive disorder, generalized anxiety, atrial fibrillation. Three vaginal births (1965, 1968, and 1970).

**Past Surgical History:** Partial hysterectomy (1983), lumbar spinal fusion (date unknown), right total knee replacement (date unknown), esophagogastroduodenoscopy with biopsy (11/19/18), and colonoscopy with polypectomy (11/19/18).

**Family History:** Mother (deceased): cardiovascular disease, systemic lupus erythematosus (SLE) | Father (deceased): heart attack, kidney cancer | Sister (deceased): SLE, heart attack

**Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):** Denies alcohol use. 55-pack year smoker and is interested in cessation. Chronic dependence of benzodiazepines and opioids with chronic noncompliance and not interested in cessation. Denies marijuana use, but urine screen was positive for THC.

**Assistive Devices:** Oxygen via cannula at night (amount unknown), full set of dentures, uses cane around the house, and uses a walker outside the house.

**Living Situation:** Lives at home with one son.

**Education Level:** Dropped out of high school in 11<sup>th</sup> grade. Obtained a GED and LPN license.

### **Admission Assessment**

**Chief Complaint (2 points):** Severe headache with vomiting and diarrhea.

**History of Present Illness – OLD CARTS (10 points):** A 74-year-old female was brought to the Sarah Bush Lincoln Hospital's Emergency Department (ED) by her son on 7/3/22 for severe headache, confusion, vomiting, and diarrhea. The son reported that the symptoms started in the morning and worsened throughout the day. The son did not know the last time the patient took her antihypertensive medications. The patient reported the headache to be left-sided and behind the eyes like a migraine. In the ED, the patient was inconsolable with an elevated blood pressure of 195/115 and the ED administered metoclopramide, lorazepam, ketorolac, hydromorphone, hydralazine, and diphenhydramine. The blood pressure was still elevated after some unknown time and the patient was started on nicardipine. The ED sent the patient for a CT-scan of the head without contrast and with contrast, and both were negative for a stroke. The blood pressure decreased, and the headache became less severe. The patient was then transferred to the 3<sup>rd</sup> floor.

### **Primary Diagnosis**

**Primary Diagnosis on Admission (2 points):** Hypertensive emergency

**Secondary Diagnosis (if applicable):** N/A

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

A hypertensive emergency is when the systolic blood pressure is above 180 mm Hg, or the diastolic blood pressure is above 120 mm Hg. This severe elevation in blood pressure will create new or worsened organ damage like hypertensive encephalopathy, ischemic stroke, myocardial infarction, heart failure with pulmonary edema, dissecting aortic aneurysm, and renal failure (Hinkle et al., 2022). The mechanical stress on the vascular walls will cause endothelial

damage and a pro-inflammatory response. This process will increase vascular permeability, platelet, and coagulation cascade activation (Alley & Schick, 2021).

Hypertensive emergencies can occur in patients with those who have abruptly stopped using the antihypertensive medications, secondary, poorly controlled, or undiagnosed hypertension (Hinkle et al., 2022). This patient did stop her antihypertensive medications abruptly, which led to rebound hypertension.

Some signs and symptoms of this condition include headache, dizziness, altered mental status, shortness of breath, chest pain, decreased urine output, vomiting, or vision changes. The abnormal findings will depend on the affected organ system when conducting a physical exam. Rales, jugular venous distention, peripheral edema, and extra heart sounds may be present during a physical assessment. The patient may also experience blurry vision, ataxia, aphasia, or unilateral numbness or weakness with a hypertensive emergency. Papilledema, exudates, and flame-shaped hemorrhages can appear in an eye exam. Acute renal failure may also occur with pulmonary or peripheral edema (Alley & Schick, 2021). This patient exhibited an altered mental status, significantly elevated blood pressure, vomiting, and severe headache.

The significant indication of a hypertensive emergency is an extremely high blood pressure with systolic above 180 mm Hg or diastolic blood pressure greater than 120 mm Hg. A lab that helps diagnose hypertensive emergency include red blood cells (RBCs) and proteinuria in the urine with renal damage. An electrocardiogram (EKG) can diagnose cardiac ischemia, and head computed tomography (CT) diagnoses patients with neurologic signs or symptoms. A chest x-ray is helpful in a patient with shortness of breath and may show an aortic dissection. Other helpful labs include a metabolic panel, B-natriuretic peptide, cardiac enzymes, creatinine, and BUN. The metabolic panel helps diagnose the cause of hypertension, while the creatinine and

BUN help indicate any renal impairment or damage. The B-natriuretic peptide and cardiac enzymes determine any cardiac damage that may have occurred (Alley & Schick, 2021). The patient had a urinalysis completed showing traces of protein, a chest x-ray, head CT with and without contrast, and an electrolyte panel completed. The protein in the urine indicates hypertension, and the CT indicated no brain damage had occurred. The patient had a blood pressure of 195/115 when in the ED.

The goal of treatment for the condition is to reduce the systolic blood pressure by not more than 25% within the first hour and then, if stable, decrease the blood pressure to 160/100 within the next 2-6 hours. Eventually, the blood pressure should be within normal limits within 24-48 hours of treatment. Some medications will help decrease blood pressure. These medications include nicardipine, clevidipine, labetalol, esmolol, nitroglycerin, and nitroprusside (Hinkle et al., 2022). Then, an assessment for organ injury should occur. Continuous blood pressure monitoring is essential, and if the patient has no organ damage, the blood pressure can continue to lower gradually (Alley & Schick, 2021). The patient discussed in the care plan was started on nicardipine when the blood pressure was not decreasing. The patient has the vitals taken every four hours to monitor the blood pressure. Lastly, the patient is on multiple antihypertensive oral medications to help control the blood pressure.

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

Alley, W. D., & Schick, M. A. (2021, July 31). *Hypertensive emergency*. StatPearls Publishing.

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15<sup>th</sup> ed.). Wolters Kluwer.

### Laboratory Data (15 points)

**CBC Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format. \*Value not taken for that day

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
<b>RBC</b>	3.80 – 5.41 x 10 <sup>6</sup> /mcL	4.72	4.56	N/A
<b>Hgb</b>	11.3 – 15.2 g/dL	15.1	14.4	N/A
<b>Hct</b>	33.2% – 45.3%	44.4	43.0	N/A
<b>Platelets</b>	149 – 393 K/mcL	273	252	N/A
<b>WBC</b>	4.0 – 11.7 K/mcL	9.2	12.1	The WBC may be elevated due to the patient experiencing stress while in the hospital. It may also be related to the patient's small fungal rash (Pagana et al., 2018).
<b>Neutrophils</b>	2.4 – 8.4 x 10 <sup>3</sup> /mcL	5.6	*N/A	N/A
<b>Lymphocytes</b>	0.8 – 3.7 x 10 <sup>3</sup> /mcL	2.9	*N/A	N/A
<b>Monocytes</b>	0.3 – 1.1 x 10 <sup>3</sup> /mcL	0.6	*N/A	N/A
<b>Eosinophils</b>	0.0 – 0.5 x 10 <sup>3</sup> /mcL	0.1	*N/A	N/A
<b>Bands</b>	3% – 5%	N/A	*N/A	N/A

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
<b>Na-</b>	136 – 145 mmol/L	140	140	N/A
<b>K+</b>	3.4 – 5.1 mmol/L	3.1	3.7	The patient's levels were low on admission due to her episodes of diarrhea that lead her to coming to the ED (Pagana et al., 2018).
<b>Cl-</b>	98 – 107 mmol/L	102	101	N/A
<b>CO2</b>	21 – 31 mmol/L	26	28	N/A
<b>Glucose</b>	< 140 mg/dL	112	114	N/A

<b>BUN</b>	7 – 25 mg/dL	8	24	N/A
<b>Creatinine</b>	0.60 – 1.20 mg/dL	0.45	1.01	The decreased value may be related to the patient's older age and decrease in muscle mass with older age (Pagana et al., 2018).
<b>Albumin</b>	3.5 – 5.2 g/dL	4.5	*N/A	N/A
<b>Calcium</b>	8.6 – 10.3 mg/dL	9.9	*N/A	N/A
<b>Mag</b>	1.6 – 2.2 mg/dL	1.8	2.1	N/A
<b>Phosphate</b>	2.5 – 4.5 mg/dL	*N/A	*N/A	N/A
<b>Bilirubin</b>	0.3 – 1.0 mg/dL	0.8	*N/A	N/A
<b>Alk Phos</b>	34 – 106 units/L	85	*N/A	N/A
<b>AST</b>	5 – 34 units/L	11	*N/A	N/A
<b>ALT</b>	0 – 55 units/L	6	*N/A	N/A
<b>Amylase</b>	100 – 300 units/L	*N/A	*N/A	N/A
<b>Lipase</b>	0 – 60 units/L	*N/A	*N/A	N/A
<b>Lactic Acid</b>	3 – 23 units/L	*N/A	*N/A	N/A
<b>Troponin</b>	0.000 – 0.030 ng/mL	*N/A	*N/A	N/A
<b>CK-MB</b>	96% – 100%	*N/A	*N/A	N/A
<b>Total CK</b>	36 –160 units/L	*N/A	*N/A	N/A

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
<b>INR</b>	0.9 – 1.1	*N/A	*N/A	N/A

<b>PT</b>	10 – 13 seconds	*N/A	*N/A	N/A
<b>PTT</b>	23.0 – 32.4 seconds	*N/A	*N/A	N/A
<b>D-Dimer</b>	0.0 – 0.5 mcg/mL	*N/A	*N/A	N/A
<b>BNP</b>	< 100 pg/mL	*N/A	*N/A	N/A
<b>HDL</b>	> 55 mg/dL	*N/A	*N/A	N/A
<b>LDL</b>	< 130 mg/dL	*N/A	*N/A	N/A
<b>Cholesterol</b>	< 200 mg/dL	*N/A	*N/A	N/A
<b>Triglycerides</b>	35-135 mg/dL	*N/A	*N/A	N/A
<b>Hgb A1c</b>	4% to 5.9%	*N/A	*N/A	N/A
<b>TSH</b>	2-10 µU/mL	27.51	*N/A	This level is high due to the patient’s low levels of T3 and T4 hormones and incorrect use of methimazole (Pagana et al., 2018).

**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>	Light yellow to amber; clear to translucent	Colorless and clear	*N/A	N/A
<b>pH</b>	5.0 – 8.0	7.0	*N/A	N/A
<b>Specific Gravity</b>	1.005 – 1.030	1.009	*N/A	N/A
<b>Glucose</b>	Negative	Negative	*N/A	N/A
<b>Protein</b>	Negative	Trace	*N/A	The patient’s uncontrolled hypertension has led to trace amounts of protein in the urine (Pagana et al., 2018).
<b>Ketones</b>	Negative	Negative	*N/A	N/A
<b>WBC</b>	< 5	2	*N/A	N/A
<b>RBC</b>	1-3	1	*N/A	N/A
<b>Leukoesterase</b>	Negative	Negative	*N/A	N/A

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
<b>pH</b>	7.35 – 7.45	7.46	*N/A	The pH is basic with elevated HCO <sub>3</sub> levels due to the patient's episode of vomiting creating metabolic alkalosis (Pagana et al., 2018).
<b>PaO<sub>2</sub></b>	80 – 100 mm Hg	89	*N/A	N/A
<b>PaCO<sub>2</sub></b>	35 – 45 mm Hg	42.6	*N/A	N/A
<b>HCO<sub>3</sub></b>	21 – 28 mEq/L	28.6	*N/A	The pH is basic with elevated HCO <sub>3</sub> levels due to the patient's episode of vomiting creating metabolic alkalosis (Pagana et al., 2018).
<b>SaO<sub>2</sub></b>	95% – 100%	96%	*N/A	N/A

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
<b>Urine Culture</b>	Negative	*N/A	*N/A	N/A
<b>Blood Culture</b>	Negative	*N/A	*N/A	N/A
<b>Sputum Culture</b>	Negative	*N/A	*N/A	N/A
<b>Stool Culture</b>	Negative	*N/A	*N/A	N/A

**Lab Correlations Reference (1) (APA):**

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2018). *Mosby's diagnostic and laboratory test reference* (14<sup>th</sup> ed.). Elsevier.

## **Diagnostic Imaging**

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

Chest X-ray (7/4/22): The x-ray showed a heart size within defined limits with no pneumothorax or effusion. There was pulmonary vascular congestion with diffused interstitial and mild patchy opacities. There are also degenerative changes in the patient's spine.

CT scan of head with no contrast (7/4/22): The CT scan showed no acute intracranial abnormalities. There was some intracranial vascular calcification with decreased attenuation of the supratentorial white matter secondary to chronic microvasculature. Everything else on the scan was unremarkable.

CT scan of head with contrast (7/4/22): The right and left internal carotid arteries show calcification with the right and left carotid siphon without definite significant stenosis. The rest of the posterior and anterior circulation was unremarkable. There were no masses, mass effects, or midline shifts. No hemodynamically significant stenosis or large vessel occlusions noted.

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

Chest x-ray: The patient had reported chest pain and has a history of atrial fibrillation. The provider wanted to check for any signs heart or lung abnormalities like pneumonia, pneumothorax, enlarged heart, or more (Hinkle et al., 2022).

CT scan of head without contrast and without: The patient was exhibiting stroke like symptoms and had altered memory loss with headache and vomiting. The provider wanted to ensure the patient was not having a transient ischemic attack or a stroke (Hinkle et al., 2022).

### **Diagnostic Test Reference (1) (APA):**

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15<sup>th</sup> ed.). Wolters Kluwer.

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

**Home Medications (5 required)**

<b>Brand/ Generic</b>	Quetiapine/ Seroquel	Lubiprostone/ Amitiza	Methimazole/ Tapazole	Tramadol/ Ultram	Clonidine/ Catapres
<b>Dose</b>	50 mg	24 mcg	5 mg	50 mg	0.2 mg
<b>Freq uency</b>	Once a day	Once a day	Q8H	Q4H PRN	Twice a day
<b>Route</b>	Oral	Oral	Oral	Oral	Oral
<b>Class ificatio n</b>	Atypical antipsychotic/ Dibenzothiazepine derivative	Chloride channel activator/ Laxative	Antithyroid agent/ Thyroid hormone antagonist	Opioid agonist/ Narcotic analgesic	Alpha-2- adrenergic receptor agonist/ antihypertensive
<b>Mech anism of Action</b>	It creates effects by affecting the synthesis, release, and reuptake of several different neurotransmitters including serotonin and dopamine. It also stabilizes postsynaptic receptor sensitivity to the neurotransmitters (Frandsen & Pennington, 2021).	The drug increases intestinal fluid secretions to aid in fecal movement by acting on the apical membrane of the GI tract. It selectively stimulates type 2 chloride channels (Frandsen & Pennington, 2021).	The drug inhibits production of the thyroid hormones and the conversion of T4 to T3, but it does not affect the previously produced and stored hormones (Frandsen & Pennington, 2021).	The drug binds to the mu opioid receptors and inhibits reuptake of norepinephrine and serotonin in the brain. This interferes with transmission of pain signals (Frandsen & Pennington, 2021).	The drug will inhibit the sympathetic vasomotor center in the CNS. This reduces impulses in the sympathetic nervous system leading to a decrease in blood pressure (Frandsen & Pennington, 2021).
<b>Reason Client Taking</b>	To treat the medical diagnosis of major depressive disorder.	To prevent constipation from opiate use.	To treat the patient's diagnosis of hyperthyroidism.	To treat the patient's back pain when needed.	To treat the patient's diagnosis of hypertension.
<b>Contra indica tions (2)</b>	1. Pregnant patients 2. Sensitivity to the drug (Frandsen & Pennington, 2021)	1. Hypersensitivity to the drug 2. GI obstruction (Frandsen & Pennington, 2021)	1. Hypersensitivity to the drug 2. Low thyroid hormone levels	1. Conjoint with SSRI's 2. The patient is suicidal	1. Bleeding disorders 2. Anticoagulants (Frandsen & Pennington, 2021)
<b>Side Effects/ Ad verse Reac tions (2)</b>	1. Drowsiness 2. Dizziness (Frandsen & Pennington, 2021)	1. Nausea 2. Severe diarrhea (Frandsen & Pennington, 2021)	1. Rash 2. Lymphadenopathy (Frandsen & Pennington, 2021)	1. Severe skin rash 2. Bradypnea (Frandsen & Pennington, 2021)	1. Drowsiness 2. Heart failure (Frandsen & Pennington, 2021)

<b>Nursing Considerations (2)</b>	1. Administer on an empty stomach 2. Monitor for any extrapyramidal effects (Frandsen & Pennington, 2021)	1. Monitor for dyspnea after initial administration 2. Monitor for syncope (Frandsen & Pennington, 2021)	1. Administer around the clock in even doses 2. Assess the heart rate and peripheral pulses for increases (Frandsen & Pennington, 2021)	1. Assess the patient for loss of consciousness 2. Assess the source, location, and characteristics of pain (Frandsen & Pennington, 2021)	1. Monitor for therapeutic response 2. Monitor intake and output for fluid retention (Frandsen & Pennington, 2021).
<b>Key Nursing Assessment(s) / Lab(s) Prior to Administration</b>	1. Baseline renal function labs 2. Baseline thyroid function labs (Frandsen & Pennington, 2021)	1. Obtain a baseline chloride serum level 2. Assess bowel sounds and bowel patterns for baseline (Frandsen & Pennington, 2021)	1. Obtain baseline liver panel 2. Obtain baseline thyroid hormone levels (Frandsen & Pennington, 2021)	1. Obtain baseline liver and renal panel 2. Obtain patient's baseline vitals and level of consciousness (Frandsen & Pennington, 2021)	1. Obtain baseline blood pressure and other vitals 2. Obtain baseline kidney labs (Frandsen & Pennington, 2021)
<b>Client Teaching Needs (2)</b>	1. Take drug exactly as prescribed 2. Keep scheduled blood tests (Frandsen & Pennington, 2021)	1. Take with food 2. Do not exceed prescribed amount (Frandsen & Pennington, 2021)	1. Education on signs and symptoms of acute liver failure 2. Consult the provider before starting OTC drugs (Frandsen & Pennington, 2021)	1. May be taken with or without food 2. Do not crush, break, chew, or dissolve the tablets (Frandsen & Pennington, 2021)	1. Avoid operating heavy machinery 2. Do not stop medication abruptly (Frandsen & Pennington, 2021)

**Hospital Medications (5 required)**

<b>Brand/ Generic</b>	Lorazepam/ Ativan	Losartan/ Cozaar	Metoprolol/ Metoprolol succinate ER	Nystatin/ Nystop	Potassium chloride/ Klor-con
<b>Dose</b>	0.5 mg	100 mg	100 mg	100,000 units per 1 g application	20 mEq
<b>Freq uency</b>	Q6H	Once a day	Once a day	Three times a day	Twice a day
<b>Route</b>	Oral	Oral	Oral	Topical	Oral
<b>Class ification</b>	Benzodiazepine/ Anxiolytic	Angiotensin 2 receptor blocker/ Antihypertensive	Beta1 adrenergic blocker/ Antihypertensive	Polyene macrolide/ Antifungal	Electrolyte cation/ Electrolyte replacement
<b>Mech anism of Action</b>	The drug enhances the inhibitory effect of GABA to alleviate anxiety, tension, nervousness, and induce sleep. Decreasing the neural excitability creates a muscle relaxer, hypnotic, and anticonvulsant effect (Frandsen & Pennington, 2021).	The drug blocks angiotensin II at various receptor sites to stop the vasoconstricting and aldosterone-secreting effects. It also increases the excretion of chloride, calcium, magnesium, and phosphate by increasing renal flow (Frandsen & Pennington, 2021).	The drug is a selective beta-adrenergic blocker. This will inhibit the beta1 receptors in the bronchial and vascular musculature to slow the heart rate and reduce systolic blood pressure (Frandsen & Pennington, 2021).	This drug binds to the sterols in the fungal cell membrane to change the permeability. This destroys and prevents fungal cells from reproducing (Frandsen & Pennington, 2021).	Potassium is a major cation in intracellular fluid which activates many enzymatic reactions essential for physiologic processes. It also helps maintain electroneutrality in cells, helps maintain normal renal function, and helps maintain acid-base balance (Frandsen & Pennington, 2021).
<b>Reason Client Taking</b>	To treat the patient's anxiety and nausea.	To treat the patient's diagnosis of hypertension.	To treat the patient's diagnosis of hypertension and atrial fibrillation.	To treat a rash on the patient's abdomen.	To treat the patient's hypokalemia found at admission.
<b>Contra indica tions (2)</b>	1. Severe respiratory disorders 2. Severe liver or kidney disease (Frandsen & Pennington, 2021)	1. Hypersensitivity 2. Pregnancy (Frandsen & Pennington, 2021)	1. Second- and third-degree heart block 2. Severe bradycardia (Frandsen & Pennington, 2021)	1. Hypersensitivity to the drug 2. Disaccharide intolerance (Frandsen & Pennington, 2021)	1. Acute dehydration 2. Severe hemolytic anemia (Frandsen & Pennington, 2021)
<b>Side Effects/ Ad verse Reac tions (2)</b>	1. Drowsiness 2. Drooling (Frandsen & Pennington, 2021)	1. Dizziness 2. Muscle cramps (Frandsen & Pennington, 2021)	1. Bradydysrhythmias 2. Depression of the AV node (Frandsen & Pennington, 2021)	1. Diarrhea 2. Local irritation and burning (Frandsen & Pennington, 2021)	1. Hyponatremic encephalopathy 2. GI bleeding (Frandsen & Pennington, 2021)

<b>Nursing Considerations (2)</b>	1. Ensure the patient has swallowed the sustained-release tablets whole 2. Observe for relaxed, but easily aroused, appearance (Frandsen & Pennington, 2021)	1. Monitor the blood pressure to evaluate efficacy 2. Monitor for angioedema or other hypersensitivity reaction (Frandsen & Pennington, 2021)	1. Hold the medication and contact the provider if the patient's heart rate is 60 bpm or lower 2. Hold the medication and contact the provider if the patient's systolic blood pressure less than 90 mm Hg (Frandsen & Pennington, 2021)	1. Prepare nystatin power for oral suspension for each dose due to no preservatives 2. Monitor for hypersensitivity after application (Frandsen & Pennington, 2021)	1. Administer oral potassium chloride with or immediately after meals 2. Administer potassium chloride injection with extreme caution (Frandsen & Pennington, 2021)
<b>Key Nursing Assessment(s)/ Lab(s) Prior to Administration</b>	1. Obtain baseline blood pressure and respiration rate 2. Obtain baseline kidney and hepatic labs (Frandsen & Pennington, 2021)	1. Obtain baseline electrolyte, especially potassium, levels 2. Obtain baseline hepatic and kidney panels (Frandsen & Pennington, 2021)	1. Monitor the patient's blood pressure and heart rate before administration 2. Obtain baseline renal function panel (Frandsen & Pennington, 2021)	1. Collect a culture on the infection before application 2. Assess the mucus membrane of the application site prior to topical application (Frandsen & Pennington, 2021)	1. Obtain serum potassium levels before and after administrations 2. Obtain serum creatinine levels before and after administrations (Frandsen & Pennington, 2021)
<b>Client Teaching Needs (2)</b>	1. This medication only temporarily relieve symptoms and does not cure the underlying problem 2. Avoid alcohol and other depressant drugs while taking this medication (Frandsen & Pennington, 2021)	1. Educate about lifestyle changes in diet, exercise, and avoid smoking 2. Monitor blood pressure at home especially when starting drug therapy, changing medications, or changing dosages (Frandsen & Pennington, 2021)	1. Avoid OTC decongestants, cold remedies, and diet pills 2. Do not stop medication abruptly (Frandsen & Pennington, 2021)	1. It may take several weeks for medication to take effect 2. Report any skin irritations with topical use (Frandsen & Pennington, 2021)	1. Educate on the proper way to take prescribed potassium 2. Instruct patient to take the drug with or right after food to prevent GI upset (Frandsen & Pennington, 2021)

**Medications Reference (1) (APA):**

Frandsen, C. & Pennington, S. S. (2021). *Abrams' clinical drug therapy: Rationales for nursing practice* (12th ed.). Wolters Kluwer.

**Assessment**

**Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS**

<p><b>GENERAL:</b>  <b>Alertness:</b>  <b>Orientation:</b>  <b>Distress:</b>  <b>Overall appearance:</b></p>	<p>The patient was alert and oriented to self, place, time, and situation (A&amp;O x4). The patient appeared calm and was well groomed and clean.</p>
<p><b>INTEGUMENTARY:</b>  <b>Skin color:</b>  <b>Character:</b>  <b>Temperature:</b>  <b>Turgor:</b>  <b>Rashes:</b>  <b>Bruises:</b>  <b>Wounds:</b>  <b>Braden Score:</b>  <b>Drains present:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Type:</b></p>	<p>The patient’s skin color was normal for ethnicity, warm, dry, pink, and intact. It exhibited elastic turgor with no bruising or rashes. The Braden score was 19 indicating no risk of pressure ulcers and no drains were present. There was a <b>small lesion from a fungal infection under the left breast about 4 cm long.</b></p>
<p><b>HEENT:</b>  <b>Head/Neck:</b>  <b>Ears:</b>  <b>Eyes:</b>  <b>Nose:</b>  <b>Teeth:</b></p>	<p>The patient’s head was normocephalic with the trachea midline. Ears appeared symmetrical with no visible discharge or drainage. The patient did not have difficulty hearing and was responsive to noise. The patient’s pupils were 2 mm and exhibited PERRLA. The eyes also displayed full extraocular movements and were symmetrical with no drainage or inflammation. The conjunctiva was pink and moist. The nose appeared midline with no deviated septum and patent nares. Nasal and buccal mucosa was moist, pink, and had no lesions. The uvula was midline and tonsils were +1. <b>The patient did not have any teeth or dentures</b> during the assessment.</p>
<p><b>CARDIOVASCULAR:</b>  <b>Heart sounds:</b>  <b>S1, S2, S3, S4, murmur etc.</b>  <b>Cardiac rhythm (if applicable):</b>  <b>Peripheral Pulses:</b>  <b>Capillary refill:</b>  <b>Neck Vein Distention:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Edema</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Location of Edema:</b></p>	<p>S1 and S2 heart sounds were heard with no S3 or S4 sounds, or murmurs heard. <b>Cardiac rhythm was irregular.</b> Radial and pedal pulses were regular and +2 bilaterally. Capillary refill was &lt; 3 seconds in fingers and toes bilaterally. No jugular vein distention or edema noted.</p>
<p><b>RESPIRATORY:</b>  <b>Accessory muscle use:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Breath Sounds: Location, character</b></p>	<p><b>The lung sounds were diminished</b> and clear bilaterally in all the lobes anteriorly and posteriorly. Breathes were even with no accessory muscle or chest deformities. The patient denies any difficulty breathing or coughing.</p>
<p><b>GASTROINTESTINAL:</b>  <b>Diet at home:</b>  <b>Current Diet</b></p>	<p>Patient has regular diet at home but is on a heart healthy diet currently. Patient’s height is 168 cm and weighs 67.4 kg. When auscultated, clicks and gurgles were heard at a rate of 5-30 per minute in all four abdominal</p>

<p><b>Height:</b>  <b>Weight:</b>  <b>Auscultation Bowel sounds:</b>  <b>Last BM:</b>  <b>Palpation: Pain, Mass etc.:</b>  <b>Inspection:</b>          <b>Distention:</b>          <b>Incisions:</b>          <b>Scars:</b>          <b>Drains:</b>          <b>Wounds:</b>  <b>Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>          <b>Size:</b>  <b>Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>          <b>Type:</b></p>	<p>quadrants. Patient denies vomiting and diarrhea nor pain with bowel movements. The last bowel movement was the day before (7/4/22). Abdomen is nontender, soft, and not distended when palpated. There are no drains, incisions, or wounds on the abdomen. Patient does not have any ostomies, nasogastric or feeding tubes.</p>
<p><b>GENITOURINARY:</b>  <b>Color:</b>  <b>Character:</b>  <b>Quantity of urine:</b>  <b>Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Inspection of genitals:</b>  <b>Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>          <b>Type:</b>          <b>Size:</b></p>	<p>Patient reports urine as yellow, clear, and with no odor. The patient did not have any voids this shift and was continent. Patient denies any pain when urinating. Genitals were not inspected. Patient does not have any catheters and is not on dialysis.</p>
<p><b>MUSCULOSKELETAL:</b>  <b>Neurovascular status:</b>  <b>ROM:</b>  <b>Supportive devices:</b>  <b>Strength:</b>  <b>ADL Assistance: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></b>  <b>Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></b>  <b>Fall Score:</b>  <b>Activity/Mobility Status:</b>  <b>Independent (up ad lib) <input type="checkbox"/></b>  <b>Needs assistance with equipment <input checked="" type="checkbox"/></b>  <b>Needs support to stand and walk <input type="checkbox"/></b></p>	<p>Neurovascular status is intact, and patient is in control of his senses. Patient does not report any paresthesia or paralysis nor displays pallor. The patient has full range of motion with 5/5 strength in upper and lower extremities bilaterally. Patient's Morse Fall score is 60 which puts her as a high fall risk. Patient uses gait belt and walker to ambulate and requires one assistant. Patient does not need help with ADLs.</p>
<p><b>NEUROLOGICAL:</b>  <b>MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></b>  <b>PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></b>  <b>Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no -</b>  <b>Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/></b>  <b>Orientation:</b></p>	<p>The patient has full range of motion with 5/5 strength in upper and lower extremities bilaterally. Eyes exhibit PERRLA signs and articulates well. Patient is A&amp;O x4 as discussed before. Patient is also alert to his surroundings and calm. Patient can sense touch all over each extremity. The patient is somewhat forgetful at times.</p>

<b>Mental Status:</b> <b>Speech:</b> <b>Sensory:</b> <b>LOC:</b>	
<b>PSYCHOSOCIAL/CULTURAL:</b> <b>Coping method(s):</b> <b>Developmental level:</b> <b>Religion &amp; what it means to pt.:</b> <b>Personal/Family Data (Think about home environment, family structure, and available family support):</b>	The patient has been coping well because she “really enjoys that staff here.” Her developmental level is appropriate for her age and education. The patient has her GED and LPN but is retired. The patient also reports to be Christian, and her religion is very important in her life. She lives with one of her three sons and he is her power of attorney.

**Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS**

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0930	86 bpm	129/78 right arm	20 breaths/min	36.8 C tympanic	96% room air
1330	84 bpm	116/60 right arm	22 breaths/min	36.7 C tympanic	95% room air

**Vital Sign Trends:** The patient’s blood pressure went down a little and the respirations are a little elevated, but the vitals are stable.

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

Time	Scale	Location	Severity	Characteristics	Interventions
0930	Numeric	Back	3/10	Achy	None
1330	Numeric	N/A	0/10	N/A	N/A

**IV Assessment (2 Points)**

<b>IV Assessment</b>	<b>Fluid Type/Rate or Saline Lock</b>
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<b>Size of IV:</b> <b>Location of IV:</b> <b>Date on IV:</b> <b>Patency of IV:</b> <b>Signs of erythema, drainage, etc.:</b> <b>IV dressing assessment:</b>	20 and 18 gauge Right (20) and left (18) antecubital fossa 7/4/22 for both IVs Both IVs patent The right IV has a little bleeding and bruising. The left IV has no signs erythema or drainage. Both have no signs of infiltration or phlebitis. Both dressings are dry, clean, and intact.
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**Intake and Output (2 points)**

Intake (in mL)	Output (in mL)
About 840 mL of oral fluids	No bowel movements or voids during this shift

**Nursing Care**

**Summary of Care (2 points)**

**Overview of care:** The patient will stay one more night before being discharged to a rehabilitation facility. The patient has been on a heart healthy diet with no other restrictions.

**Procedures/testing done:** Chest x-ray, CT scan with and without contrast, and telemetry.

**Complaints/Issues:** No complaints or issues reported.

**Vital signs (stable/unstable):** The vital signs are stable with a slight decrease in blood pressure.

**Tolerating diet, activity, etc.:** The patient is tolerating of diet, activity, and medications.

**Physician notifications:** No physician notifications during this shift.

**Future plans for client:** The patient will be discharged to Charleston Rehabilitation after spending one more night at Sarah Bush Lincoln Hospital.

**Discharge Planning (2 points)**

**Discharge location:** Charleston Rehabilitation Center

**Home health needs (if applicable):** N/A

**Equipment needs (if applicable):** Blood pressure machine

**Follow up plan:** The patient will go to Charleston Rehabilitation Center and will follow up with her primary care and cardiology with scheduled appointments.

**Education needs:** The patient needs education on readmission prevention like medication administration and adherence, and how to take her blood pressure at home.

**Nursing Diagnosis (15 points)**

<b>Nursing Diagnosis</b>	<b>Rationale</b>	<b>Interventions</b>	<b>Outcome Goal</b>	<b>Evaluation</b>
<p><b>1.</b> Risk for decreased cardiac output related to elevated blood pressure as evidenced by diagnosis of hypertension.</p>	<p>This patient was brought in for a hypertensive emergency which indicates the patient's hypertension is not being managed well. The hypertension can lead to decreased cardiac output if not managed correctly.</p>	<p><b>1.</b> Monitor and record blood pressure. <b>2.</b> Educate the patient on how to measure her blood pressure at home.</p>	<p><b>1.</b> The patient will have a stable trend in blood pressures that are within the patient's acceptable range before discharge. The patient will also teach back how to do measure her own blood pressure.</p>	<p>The patient's blood pressure did stay stable and was within the patient's acceptable range. The education on how to do self-measured blood pressures was not completed during this shift. The goal was partially met.</p>
<p><b>2.</b> Risk for unstable blood pressure related to inconsistency with medication regimen as evidenced by the patient reporting that she had stopped taking her clonidine.</p>	<p>The patient has not adhered to her medication as prescribed leading to a hypertensive emergency. The patient could stop taking another blood pressure medication at any time.</p>	<p><b>1.</b> Assess patient's blood pressure, heart rate, oxygen saturation, and respiratory rate for any abnormalities. <b>2.</b> Provide education on how to take blood pressure medications.</p>	<p><b>1.</b> The patient will adhere to the medication regimen as directed after discharge.</p>	<p>The patient's hemodynamic vitals are stable, but the education has not been taught yet. The goal has not been reached.</p>
<p><b>3.</b> Decreased activity tolerance related to hypertension as evidenced by the patient needing assistive devices or personnel to</p>	<p>Decreased activity increases the risk of many different other illnesses and can cause restricted range of motion. This can decrease muscle mass increasing activity</p>	<p><b>1.</b> Educate the patient on maintaining or improving activity. <b>2.</b> Establish realistic goals for improving the patient's activity level.</p>	<p><b>1.</b> The patient will teach back the rationale for preventing decreased activity level.</p>	<p>The interventions have not been executed during this shift. The goal has not been reached.</p>

ambulate.	tolerance.			
4. Deficient knowledge related to noncompliance to blood pressure medication as evidenced by the patient discontinuing clonidine without contacting anyone.	Deficient knowledge about the patient's blood pressure medication administration can cause more errors resulting in hypertension in the hospital.	1. Education on proper blood pressure medication administration.  2. Assess the patient's knowledge on the subject.	1. The patient will teach back on proper medication administration and when to not take the medications.	None of the interventions were executed during this shift. The goal was not met.

**Other References (APA):**

**Concept Map (20 Points):**

**Subjective Data**

74-year-old inconsolable female patient with severe headache, confusion, vomiting, and diarrhea.  
The patient is on multiple antihypertensive medications that she abruptly stopped taking one

**Nursing Diagnosis/Outcomes**

Risk for decreased cardiac output related to elevated blood pressure as evidenced by diagnosis of hypertension.  
The patient will have a stable trend in blood pressures that are within the patient's acceptable range before discharge.  
The patient will also teach back how to do measure her own blood pressure.  
Risk for unstable blood pressure related to inconsistency with medication regimen as evidenced by the patient reporting that she had stopped taking her clonidine.  
The patient will adhere to the medication regimen as directed after discharge.  
Decreased activity tolerance related to hypertension as evidenced by the patient needing assistive devices or personnel to ambulate.  
The patient will teach back the rationale for preventing decreased activity level.  
Deficient knowledge related to noncompliance to blood pressure medication as evidenced by the patient discontinuing clonidine without contacting anyone.  
The patient will teach back on proper medication administration and when to not take the medications.

**Objective Data**

K+ 3.1 mmol/L  
Irregular cardiac rhythm  
Diminished lungs sounds  
Creatinine 0.45 mg/dL  
TSH 27.51 micro units/mL  
Trace amounts of protein in the urine  
195/115 blood pressure in ED

**Client Information**

A 74-year-old female was brought to the Sarah Bush Lincoln Hospital's Emergency Department (ED) by her son on 7/3/22 for severe headache, confusion, vomiting, and diarrhea. The son reported that the symptoms started in the morning and worsened throughout the day. The son did not know the last time the patient took her antihypertensive medications. The patient reported the headache to be left-sided and behind the eyes like a migraine. In the ED, the patient was inconsolable with an elevated blood pressure of 195/115 and the ED administered metoclopramide, lorazepam, ketorolac, hydromorphone, hydralazine, and diphenhydramine. The blood pressure was still elevated after some unknown time and the patient was started on nicardipine. The ED sent the patient for a CT-scan of the head without contrast and with contrast, and both were negative for a stroke. The blood pressure decreased, and the headache became less severe.

**Nursing Interventions**

Monitor and record blood pressure.  
Educate the patient on how to measure her blood pressure at home.  
Assess patient's blood pressure, heart rate, oxygen saturation, and respiratory rate for any abnormalities.  
Provide education on how to take blood pressure medications.  
Educate the patient on maintaining or improving activity.  
Establish realistic goals for improving the patient's activity level.  
Education on proper blood pressure medication administration.  
Assess the patient's knowledge on the subject.



