

N311 Care Plan #2  
Lakeview College of Nursing  
Beatriz Amaya

**Demographics (5 points)**

<b>Date of Admission</b> 10/11/21	<b>Patient Initials</b> W.R.	<b>Age</b> 88	<b>Gender</b> F
<b>Race/Ethnicity</b> Caucasian	<b>Occupation</b> Retired	<b>Marital Status</b> Married	<b>Allergies</b> Codeine, Niacin, Sulfadiazine, Penicillin, Levaquin, NSAIDs
<b>Code Status</b> Do not resuscitate	<b>Height</b> 62 inches	<b>Weight</b> 134.4lbs (60.9kg)	

**Medical History (5 Points)**

**Past Medical History:** Hypertension, Stage three kidney disease, Hypothyroidism, Hyperlipidemia, Gastro-Esophageal Reflux, Osteoarthritis, Cardiac Murmur, Muscle weakness, unsteadiness on feet

**Past Surgical History:** Appendectomy, Gallbladder (Date not specified).

**Family History:** Father had a history of cardiovascular disease, heart attack, hypertension.

Mother had a history of heart attack and hypertension. All four brothers and one sister history of heart attack and hypertension.

**Social History (tobacco/alcohol/drugs):**

Denies consumption of alcohol, and use of drugs. Former smoker.

### **Admission Assessment**

**Chief Complaint (2 points):** The patient came to the emergency room for weakness in August 2021. Admitted here (Sarah Bush) and recently at Carle. The patient states, “Weakness has worsened I want to know what is causing it”.

**History of present Illness (10 points):** The patient has complained she has “not felt well for several weeks”. Symptoms are nonspecific. Admitted multiple times for the same reasons states she feels lightheadedness and weakness nothing makes it better.

### **Primary Diagnosis**

**Primary Diagnosis on Admission (3 points):**

The patient’s primary diagnosis was found to be hypertensive urgency.

**Secondary Diagnosis (if applicable): None**

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

Hypertensive Urgency seems to run deep in her family the basic understanding is, “Hypertensive urgency is a marked elevation in blood pressure without evidence of target organ damage, such as pulmonary edema, cardiac ischemia, neurologic deficits, or acute renal failure”(Alley,2021). This condition is difficult to figure out the basis to why the person has acquired hypertensive urgency. Some reasons listed are, “Noncompliance with antihypertensive therapy, use of sympathomimetics and thyroid dysfunction are among the many possible causes of hypertensive urgencies”(Alley,2021). In order for it to be diagnosed most likely it will be from a routine check-up and finding out the blood pressure is abnormally high. After this, they may need to do some testing, “If you have high blood pressure, your doctor may recommend tests to confirm the diagnosis and check for underlying conditions that can cause hypertension.

Ambulatory monitoring. This 24-hour blood pressure monitoring test is used to confirm if you have high blood pressure. The device used for this test measures your blood pressure at regular intervals over a 24-hour period and provides a more accurate picture of blood pressure changes over an average day and night. Lab tests. Your doctor may recommend a urine test (urinalysis) and blood tests, including a cholesterol test. Electrocardiogram (ECG or Ex-rayThis quick and painless test measures your heart's electrical activity”(“High Blood Pressure”,2021). This patient had an EKG done due to her having chest pain and her medical family past also helped with a long history of the family having hypertensionTropoin was also checked to rule out ischemia.

Some symptoms may include, “Primary HTN commonly has no signs or symptoms. The disease may be quite advanced before it is detected or diagnosed and may have already caused target organ damage. Rarely, persons with HTN complain of headache, nosebleeds, blurred vision, or

palpitations”(Caprotti,2020). So in these situations, it won’t be easy to diagnose but this patient has an extensive history of her family has it. Onto the disease process, “Severe acute elevations are likely related to an influx of humoral vasoconstrictors, resulting in elevated systemic vascular resistance. The increased vascular wall stress and associated endothelial injury result in increased vascular permeability, activation of coagulation factors and platelets, and fibrin deposition”(Alley,2021). If the patient does not treat appropriately it can lead to can progress to “hypertensive emergency with end-organ damage. Long-term complications associated with uncontrolled hypertension include Myocardial infarction, Stroke, Heart failure, Renal failure”(Alley,2021). Treatment, “The treatment for hypertensive urgency is to ensure better long-term blood pressure control. Emphasizing the need for compliance with medications and close primary care follow-up is paramount” (Alley,2021). This particular patient is taking Losartan daily in the morning and night to treat her hypertension. It is important to be closely following up with their primary physician and checking up to make sure the blood pressure is maintained in normal ranges and that the medicine is working. Since her entire family has been diagnosed with hypertension and half of them ended with a heart attack it is important to watch her lifestyle. She should make lifestyle changes like, “ Reduce salt (sodium) intake, Avoid alcohol, Take plenty of fiber in the form of vegetables and fruits, Exercise regularly, Avoid caffeinated drinks, Quit smoking”(Alley,2021). It is very important to stay on top of your own health so this does not advance and cause and target organ failure and due to her family history of heart attacks.

**APA Reference:**

Alley, William D., and Eddie Copelin. (2021). "Hypertensive Urgency." *StatPearls [Internet]*. U.S. National Library of Medicine, <https://www.ncbi.nlm.nih.gov/books/NBK513351/>.

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis

"High Blood Pressure (Hypertension)." (2021). *Mayo Clinic*, Mayo Foundation for Medical Education and Research, <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/diagnosis-treatment/drc-20373417>.

**Laboratory Data (20 points)**

**\*If laboratory data is unavailable, values will be assigned by the clinical instructor\***

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

**NOTE: Example on advance has a whole list of normal ranges and an already formatted citation if anybody wants to use that**

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.0-5.8x10 <sup>6</sup> /mcL	4.48 mcL	N/A	N/A
Hgb	12.0-15.8g/dL	13.7 g/dL	N/A	N/A
Hct	36.0-47.0%	40.7%	N/A	N/A
Platelets	140-440K/mcL	480 K/mcL	N/A	High due to body fighting possible infection(Capriotti,2020).

<b>WBC</b>	<b>4.0-12.0K/mcL</b>	9.9 K/mcL	N/A	N/A
<b>Neutrophils</b>	<b>40-60%</b>	69.9%	N/A	High due to body fighting possible infection(Capriotti,2020).
<b>Lymphocytes</b>	<b>19-49%</b>	19.5%	N/A	N/A
<b>Monocytes</b>	<b>3.0-13.0%</b>	9.3%	N/A	N/A
<b>Eosinophils</b>	<b>0.0-8.0%</b>	0.1%	N/A	N/A
<b>Bands</b>	<b>0.0-10.0%</b>	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.

<b>Lab</b>	<b>Normal Range</b>	<b>Admission Value</b>	<b>Today's Value</b>	<b>Reason For Abnormal</b>
<b>Na-</b>	134-144mmol/L	138 mmol/L	N/A	N/A
<b>K+</b>	3.5-5.1mmol/L	4.6 mmol/L	N/A	N/A
<b>Cl-</b>	98-107mmol/L	100 mmol/L	N/A	N/A
<b>CO2</b>	21-31mmol/L	26 mmol/L	N/A	N/A
<b>Glucose</b>	70-99mg/dL	96 mg/dL	N/A	N/A
<b>BUN</b>	7-25 mg/dL	22 mg/dL	N/A	N/A
<b>Creatinine</b>	0.50-1.20mg/dL	0.94 mg/dL	N/A	N/A
<b>Albumin</b>	3.5-5.7 g/dL	4.1 g/dL	N/A	N/A
<b>Calcium</b>	8.6-10.3 mg/dL	10.2 mg/dL	N/A	N/A
<b>Mag</b>	1.6-2.6 mg/dL	1.9mg/dL	N/A	N/A
<b>Phosphate</b>	2.4-4.5 units/L	N/A	N/A	N/A

<b>Bilirubin</b>	0.3-1.0 mg/dL	.6 mg/dL	N/A	N/A
<b>Alk Phos</b>	34-104 units/L	78 unit/L	N/A	N/A

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
<b>Color &amp; Clarity</b>	yellow, clear	Colorless	N/A	N/A
<b>pH</b>	5.0-9.0	6.0	N/A	N/A
<b>Specific Gravity</b>	1.003-1.013	1.006	N/A	N/A
<b>Glucose</b>	Negative	Normal	N/A	N/A
<b>Protein</b>	Negative	Negative	N/A	N/A
<b>Ketones</b>	Negative	Negative	N/A	N/A
<b>WBC</b>	0.0-0.5	N/A	N/A	N/A
<b>RBC</b>	0.0-3.0	Negative	N/A	N/A
<b>Leukoesterase</b>	Negative	N/A	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 (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis

### Diagnostic Imaging

#### All Other Diagnostic Tests (10 points):

**Troponin- .01:** “To determine if you have had a heart attack or injury to heart muscle”(“Troponin”,2021). The patient’s troponin was checked for her hypertension and to make sure there was no ischemia.

**Lactic Acid-1.4-** “Help diagnose sepsis, a life-threatening reaction to a bacterial infection”(Medline-Plus,2021). Lactic acid was checked to make sure the patient was not septic.

**Anion Gap 011.5-** “The anion gap blood test is used to show whether your blood has an imbalance of electrolytes or too much or not enough acid”(“Anion Gap Blood Test”,2020).

Collected to make sure the patient was not septic.

**Chest X-Ray-** “It can help your healthcare provider see how well your lungs and heart are working”(“Chest X-Ray,”2021). X-ray was done due to a patient experiencing chest pain.

Checked the heart and lungs for any complications that may be present.

- A. 1 view X-Ray of Chest: Heart was observed to be normal size, lungs clear no active cardiopulmonary process,

#### **Diagnostic References APA:**

“Anion Gap Blood Test: MedlinePlus Medical Test.” *MedlinePlus*, U.S. National Library of Medicine, 30 July 2020, <https://medlineplus.gov/lab-tests/anion-gap-blood-test/>.

“Chest X-Ray.” *Johns Hopkins Medicine*, 2021, <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/chest-xray>.

“Lactic Acid Test: MedlinePlus Medical Test.” *MedlinePlus*, U.S. National Library of Medicine, 17 Dec. 2020, <https://medlineplus.gov/lab-tests/lactic-acid-test/>.

“Troponin - Understand the Test & Your Results.” *Lab Tests Online*, 27 Jan. 2021, <https://labtestsonline.org/tests/troponin>.

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

**Medications (5 required)**

<b>Brand/Generic</b>	<b>Tylenol/Acetaminophen</b>	<b>Pepcid/Famotidine</b>	<b>Eliquis/Api xaban/</b>	<b>Synthroid / Levothyroxine</b>	<b>Losartan/Cozaar</b>
<b>Dose</b>	325mg	20mg	2.5mg	88 mg	50mg
<b>Frequency</b>	2x Q6 /PRN	1x daily /PRN	QAM, QHS	QAM	QAM, QHS
<b>Route</b>	PO(tablets)	PO	PO	PO	PO
<b>Classification</b>	Nonsalicylate, paraaminophenol derivative	Histamine-2 Blockers	Factor Xa inhibitor	Thyroid preparation	angiotensin II receptor antagonists.
<b>Mechanism of Action</b>	Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system(Jones ,2021).	Reduces HCl formation by preventing histamine from binding with H2 receptors on the surface of parietal cells. By doing so the drug helps prevent peptic ulcers from forming and helps heal existing ones (Jones 2021).	Inhibits free and clot bound factors Xa and prothrombinase activity. Decreases thrombin generation and thrombus development (Jones 2021).	Replaces endogenous thyroid hormone, increases energy expenditure, accelerates the rate of cellular oxidation, which stimulates body tissue growth, maturation, metabolism. regulates differentiation and proliferation of stem cells. (Jones 2021).	Decreases left ventricular mass index in patients with left ventricular hypertrophy who also have hypertension. By targeting the renin-angiotensin system, neuroprotective actions occur through the lowering of the albumin excretion rate in patients with type 2 diabetes (Jones 2021).
<b>Reason Client Taking</b>	Pain	Gastroesophageal	Deep Vein Thrombosis prevention	Hypothyroidism	Hypertension

		reflux disease (GERD)			
<b>Contraindications (2)</b>	Hypersensitivity to acetaminophen or its components severe hepatic impairment and severe active liver disease (Jones 2021).	Hypersensitivity to famotidine other H2 receptor antagonists or their components (Jones 2021).	Active pathological bleeding severe hypersensitivity to apixaban or its components (Jones 2021).	Hypersensitivity to levothyroxine or its components, uncorrelated adrenal insufficiency (Jones 2021).	Concurrent aliskiren in patients with diabetes hypersensitivity to losartan potassium or its components (Jones 2021).
<b>Side Effects/Adverse Reactions (2)</b>	Agitation, anxiety, fever, fatigue, headache, insomnia (Jones 2021).	agitation, anxiety, asthenia, confusion, delirium (Jones 2021).	Syncope, elevated bilirubin or liver enzymes, hematuria (Jones 2021.)	Fatigue, fever, headache, hyperactivity, insomnia, wheezing (Jones 2021).	dizziness, fatigue, nasal congestion, diarrhea, back pain (Jones 2021).

**Medications Reference (APA):**

Jones, D.W. (2020). *Nurse's drug handbook*. (A. Bartlett, Ed.) (19th ed.). Jones & Bartlett Learning.

**Assessment****Physical Exam (18 points)**

<b>GENERAL:</b> <b>Alertness:</b> <b>Orientation:</b> <b>Distress:</b>	The patient was alert and oriented to person, place, time, and situation. Alert and Oriented times four. (A&O x4)
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<b>Overall appearance:</b>	The patient showed no signs of distress. Overall physical hygiene was well maintained and cared for.
<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: N ✓</b> <b>Type:</b>	The patient's skin was an appropriate color for ethnicity, dry intact, warm, and loose. The skin had no rashes, bruises, or wounds. Braden scores 19 which represents patient is not at risk for pressure ulcers.
<b>HEENT:</b> <b>Head/Neck:</b> <b>Ears:</b> <b>Eyes:</b> <b>Nose:</b> <b>Teeth:</b>	The patient's head appears normocephalic. No signs of masses. The neck is supple. All lymph nodes are palpable. Hearing intact other than having industrial deafness. The client's ears are symmetrical with no signs of cerumen. The patient denies ear pain. Patients' eyes exhibited PERLA and eye ocular movement intact. Eyes constrict and accommodate the 6 cardinal directions. The patient's nose is symmetrical with no deviated septum, nerves are patent, no epistaxis or polyps. The client has full upper dentures and partial lower dentures. No abnormalities were seen in the rising and fall of the uvula.
<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: N ✓</b> <b>Edema N ✓</b> <b>Location of Edema:</b>	Patients' heart sounds S1 and S2 were auscultated. Murmur was heard at Erbs, Tricuspid, and Mitral valve. Atrial fibrillation rhythm. Peripheral pulses were assessed with 3+ radial and 3+ pulse for popliteal. Capillary refill less than three seconds. No neck distention or edema.
<b>RESPIRATORY:</b> <b>Accessory muscle use: Y <input type="checkbox"/> N <input type="checkbox"/></b> <b>Breath Sounds: Location, character</b>	No accessory muscles were used. The patient's breath sounds were auscultated anterior and posterior sounding clear and diminished.

<p><b>GASTROINTESTINAL:</b>  <b>Diet at home:</b>  <b>Current Diet</b>  <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>The patient's diet at home is regular, with the current diet being a cardiac diet. Height 62 inches, 134.4 lbs.(60.9kg). Bowel sounds active in all four quadrants. Last bowel movement 10/20/2021. Upon palpation, no pain, soft, non-tender, no mass was noted. Inspection not assessed. The patient has no ostomy, nasogastric tube, or feeding tube.</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>Not Assessed.</p>
<p><b>MUSCULOSKELETAL:</b>  <b>Neurovascular status:</b>  <b>ROM:</b>  <b>Supportive devices:</b>  <b>Strength:</b>  <b>ADL Assistance: Y <input checked="" type="checkbox"/> N <input 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 checked="" type="checkbox"/></b></p>	<p>The patient's neurovascular status is intact. Passive and active ROM intact. The patient uses a walker as a supportive device. Equal upper strength. Lower extremities 2+ strength on left leg due to weakness, 3+ strength on right leg. Assistance is needed for the activity of daily livings. The client is a fall risk with a score of 65. The patient is not ad-lib. Assistance with equipment and support to stand and walk is needed.</p>

<p><b>NEUROLOGICAL:</b>  <b>MAEW:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>PERLA:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>  <b>Strength Equal:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> <b>if no -</b>  <b>Legs</b> <input checked="" type="checkbox"/> <b>Arms</b> <input type="checkbox"/> <b>Both</b> <input type="checkbox"/>  <b>Orientation:</b>  <b>Mental Status:</b>  <b>Speech:</b>  <b>Sensory:</b>  <b>LOC:</b></p>	<p>The patient is able to move all extremities well with some weakness to the left leg. Eyes were examined and exhibited PERLA. The patient has equal strength for the upper extremities. The patient's lower extremities were not equal to left leg weakness. The patient is alert and oriented times four (A&amp;Ox4) Mentally shows alertness and calm. Speech is clear. Patient senses touch overall extremities.</p>
<p><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></p>	<p>Patients states coping mechanism is "talking with staff and students". Developmental status is appropriate for age. The patients religion is Methodist. The patient claims her son is her support system, also mentions she has three grown grandkids.</p>

**Vital Signs, 1 set (5 points)**

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
10:39 am Oct. 20th	84 bpm	132/62	18	98.1	98% RA

**Pain Assessment, 1 set (5 points)**

Time	Scale	Location	Severity	Characteristics	Interventions
10:39 am Oct. 20th	0/10	N/A	N/A	N/A	N/A

**Intake and Output (2 points)**

Intake (in mL)	Output (in mL)
N/A	N/A

**Nursing Diagnosis (15 points)**  
**\*Must be NANDA approved nursing diagnosis\***

<b>Nursing Diagnosis</b> <ul style="list-style-type: none"> <li>● Include full nursing diagnosis with “related to” and “as evidenced by” components</li> </ul>	<b>Rational</b> <ul style="list-style-type: none"> <li>● Explain why the nursing diagnosis was chosen</li> </ul>	<b>Intervention (2 per dx)</b>	<b>Evaluation</b> <ul style="list-style-type: none"> <li>● How did the patient/family respond to the nurse’s actions?</li> <li>● Client response, the status of goals and outcomes, modifications to plan.</li> </ul>
<p>1. <b>Decreased Activity Tolerance</b>-evidence by patient reporting “Weakness has worsened I want to know what is causing it”</p>	<p>Diagnosis chose due to constant muscle weakness and feeling weaker than usual.</p>	<p>1. Ambulating 3x per day with the help 2. Range of motion with therapy to make left leg stronger</p>	<p>The patient complied and was happy to do anything to help her get stronger. The goal is by the end of therapy have equal strength in both legs and feel strong. The goal was met she expressed feeling stronger than before and was able to move around and complete activities of daily livings with ease.</p>
<p>2. <b>Knowledge deficit</b>-evidence by the patient having a regular diet at home and not understanding the severity of what hypertension urgency can lead to a hypertensive emergency.</p>	<p>This was chosen due to the patient coming in frequently for the same reason and constantly not feeling well.</p>	<p>1. Patient stayed on a cardiac diet at the hospital and rehab. 2. Patient was educated on the importance of having a cardiac diet at home.</p>	<p>The patient was glad to try it to help her maintain a healthy lifestyle. The goal was to educate her on better choices of food and help her make healthier lifestyle choices. The goal was met as she avoids eating fast food and prefers to cook healthy meals at home.</p>

**Overall APA format (5 points):**

Alley, William D., and Eddie Copelin. (2021). "Hypertensive Urgency." *StatPearls [Internet]*.,

U.S. National Library of Medicine, <https://www.ncbi.nlm.nih.gov/books/NBK513351/>.

"Anion Gap Blood Test: MedlinePlus Medical Test." (2020). *MedlinePlus*, U.S. National Library of Medicine, <https://medlineplus.gov/lab-tests/anion-gap-blood-test/>.

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis

"Chest X-Ray." (2021) *Johns Hopkins Medicine*, <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/chest-x-ray>.

"High Blood Pressure (Hypertension)." (2021). *Mayo Clinic*, Mayo Foundation for Medical Education and Research, <https://www.Mayoclinic.org/diseases-conditions/high-blood-pressure/diagnosis-treatment/drc-20373417>.

Jones, D.W. (2020). *Nurse's drug handbook*. (A. Bartlett, Ed.) (19th ed.). Jones & Bartlett Learning.

"Lactic Acid Test: MedlinePlus Medical Test." (2020). *MedlinePlus*, U.S. National Library of Medicine, <https://medlineplus.gov/lab-tests/lactic-acid-test/>.

"Troponin - Understand the Test & Your Results." (2021). *Lab Tests Online*, <https://labtestsonline.org/tests/troponin>.

**Concept Map (20 Point)- ON ANOTHER DOCUMENT**



