

Week 3 Assignment - Cardiovascular Disorder

[REDACTED]

Walden University

NURS 6501: Advanced

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Concept Map Template

Primary Diagnosis: Hypertension

1. Describe the pathophysiology of the primary diagnosis in your own words. What is the patient's risk factors for this diagnosis?

Pathophysiology of Primary Diagnosis	
Hypertension (HTN) is the persistent elevation of systemic arterial blood pressure. Patients with hypertension have a Systolic Blood Pressure (SBP) of ≥ 140 mmHg and a Diastolic Pressure (DBP) of ≥ 90 mmHg. The pathophysiology of hypertension involves an increase in blood resistance as it flows through constricted peripheral arteries leading to high blood pressure (Hall et al., 2023). Additionally, imbalance in the regulation of salt and water by the kidneys causes volume expansion leading to high blood pressure. The imbalance in the regulation of electrolytes such as sodium activates the renin-angiotensin-aldosterone system (RAAS). This causes an increase in the levels of angiotensin II, a potential vasoconstrictor, releasing aldosterone. The release of aldosterone results in the retention of water and sodium increasing volume and blood pressure. Another pathophysiologic mechanism in the development of HTN is the activation of sympathetic nervous system leading to increased peripheral resistance and vasoconstriction (Maron et al., 2021). This results in subsequent increase in cardiac output and afterload, elevating blood pressure.	
Causes	Risk Factors (genetic/ethnic/physical)
✚ Stress ✚ Excessive alcohol consumption and smoking ✚ Medical conditions such as obesity,	✚ Advanced age (Above 65 years) ✚ Gender: HTN is more commonly diagnosed in men than women (Maron et al., 2021). Risk in women increases