

Nursing Case Study: A 65-Year-Old Male with Uncontrolled Hypertension and a History of Diabetes

Patient Profile

- **Age:** 65 years
- **Gender:** Male
- **Medical History:** Type 2 Diabetes Mellitus (T2DM), Hypertension (HTN)
- **Current Medications:** Metformin, Lisinopril
- **Lifestyle Factors:** Sedentary lifestyle, high-sodium diet, occasional alcohol consumption

1. Patient Assessment

Chief Complaint:

The patient presents to the clinic with complaints of persistent headaches, dizziness, and occasional blurred vision over the past two weeks. He also reports increased fatigue, swelling in his legs, and occasional episodes of shortness of breath.

Vital Signs:

- **Blood Pressure (BP):** 180/95 mmHg (uncontrolled hypertension)
- **Heart Rate (HR):** 92 bpm
- **Respiratory Rate (RR):** 18 breaths per minute
- **Temperature:** 98.6°F
- **Blood Glucose Level:** 210 mg/dL (above normal range)
- **Body Mass Index (BMI):** 31 (classified as obese)

Physical Examination Findings:

- **Pitting edema** in both lower extremities, suggesting fluid retention
- **Retinal changes** suggestive of diabetic retinopathy
- **Slightly diminished peripheral pulses**, indicating possible peripheral artery disease
- **Acanthosis nigricans** around the neck (suggestive of insulin resistance)
- **Signs of early neuropathy**, including reduced sensation in both feet

2. Nursing Diagnosis

1. **Ineffective Health Maintenance** related to poor dietary habits and sedentary lifestyle as evidenced by uncontrolled hypertension and diabetes.
2. **Risk for Cardiac Complications** related to chronic hypertension, obesity, and diabetes mellitus.
3. **Impaired Tissue Perfusion** related to elevated blood pressure and diabetic complications as evidenced by diminished peripheral pulses and retinopathy.

4. **Fluid Volume Excess** related to heart failure secondary to hypertension, as evidenced by pitting edema and shortness of breath.

3. Nursing Interventions and Care Plan

Short-Term Goals:

- Reduce blood pressure to below **140/90 mmHg** within 1 month through medication adherence and lifestyle modifications.
- Improve blood glucose levels to **below 180 mg/dL** through medication, diet, and activity changes.
- Decrease symptoms of dizziness, fatigue, and edema within **two weeks** by implementing dietary and fluid management strategies.

Long-Term Goals:

- Prevent complications such as **stroke, heart failure, and kidney disease** by maintaining blood pressure and glucose levels within target ranges.
- Promote long-term weight reduction to a **BMI of 25-29** to decrease the risk of cardiovascular diseases.
- Enhance patient adherence to a structured health regimen by ensuring an **80% compliance rate** with medications and lifestyle changes over the next **three months**.

Interventions:

1. Medication Management:

- Assess medication adherence and identify potential side effects that may hinder compliance.
- Educate the patient on the importance of taking antihypertensive and diabetic medications consistently.
- Collaborate with the healthcare provider to evaluate the need for additional **antihypertensive agents** or insulin therapy if current medications are ineffective.

2. Dietary Modifications:

- Educate the patient on the **DASH (Dietary Approaches to Stop Hypertension)** diet, which includes reducing sodium intake to **less than 1,500 mg per day**.
- Encourage a **low-glycemic index diet** rich in **vegetables, lean proteins, whole grains, and healthy fats** to stabilize blood glucose levels.
- Recommend fluid restriction **if symptoms of fluid overload worsen**.

3. Physical Activity:

- Encourage the patient to engage in **at least 30 minutes of moderate exercise (e.g., walking, swimming) 5 times a week.**
- Develop a **gradual exercise plan** to accommodate the patient's current sedentary lifestyle and prevent complications like hypoglycemia.

4. Monitoring and Follow-Up:

- Schedule regular BP and blood glucose checks **every 2 weeks** until stable.
- Monitor for complications such as **nephropathy, retinopathy, and cardiovascular disease** through routine laboratory and physical assessments.
- Perform routine **foot examinations** to prevent diabetic foot ulcers.

5. Patient Education:

- Teach the patient to recognize the signs of a **hypertensive crisis** (e.g., severe headache, chest pain, shortness of breath).
- Explain the **risks of uncontrolled hypertension and diabetes**, including **stroke, kidney failure, and vision loss.**
- Encourage the patient to participate in **diabetes and hypertension self-management programs.**

4. Expected Outcomes

- The patient's blood pressure will be **maintained at $\leq 140/90$ mmHg** with medication and lifestyle changes.
- Blood glucose levels will stabilize **within the target range (70-180 mg/dL) within one month.**
- The patient will report a **decrease in symptoms** such as headaches, dizziness, and leg swelling.
- The patient will demonstrate an **understanding of proper diet, medication adherence, and physical activity** to manage his conditions.
- The patient will show **improved physical activity levels** and a **5% reduction in weight** within **three months.**

Conclusion

This case study highlights the critical role of **nursing interventions** in managing a patient with **uncontrolled hypertension and diabetes mellitus**. Through proper assessment, medication management, lifestyle modifications, and patient education, the patient's risk of **cardiovascular complications** can be significantly reduced. Continuous monitoring, support, and **long-term adherence** to a structured care plan are essential for optimal health outcomes.