

## Hypertension Case Study MSN

C.S. is a 40-year-old male who attends a community health screening. He states that he has not seen a health care provider in a “really long time.” He is a truck driver who eats mainly fast food while on the road. He smokes a pack of cigarettes a day “just for something to do during the long hours of driving and to keep me calm.” C.S. is 5 ft., 9 in tall and weighs 230 lb. His BP is 182/104, heart rate 90, respirations 24, and temperature 97.0°F.

1. What risks factors for hypertension does C.S. have?

Due to C. S’s hypertension, he is at risk for myocardial infarction, heart failure, stroke, renal disease, and vision loss. These risk factors are life threatening, especially with being on the road as a truck driver.

2. What clinical manifestations of hypertension would you assess for in C.S.?

The clinical manifestations of hypertension that I would assess for in C.S. are fatigue, dizziness, palpitations, angina (chest pain), and dyspnea (difficult or labored breathing). Hypertension is also known as the “silent killer”.

3. What complications will you assess C.S. for?

Complications that I will assess C.S. for are coronary artery disease (major risk factor), left ventricular hypertrophy, heart failure, cerebrovascular disease, peripheral vascular disease, nephrosclerosis, and retinal damage.

C.S. is referred to his health care provider to follow up on his high blood pressure screening.

4. What diagnostic studies might you expect the health care provider to order for C.S.?

The diagnostic studies that I would expect the health care provider to order for C.S. are an Ambulatory blood pressure monitoring (ABPM), which is a noninvasive, fully automated system that measures BP at preset intervals over a 12 to 24-hour period. I would also expect a measurement of blood pressure to be done, an echocardiogram, and an ECG. An echocardiogram test provides insight on the impact that hypertension has had on the heart over time. An ECG shows if there has been an enlargement of the heart due to high blood pressure.

C.S.'s BP is monitored for several visits and remains elevated. His serum cholesterol, BUN, and creatinine levels are elevated. His creatinine clearance (glomerular filtration rate) is below normal, demonstrating renal insufficiency.

5. What type of lifestyle modifications would you recommend for C.S. to control his BP?

The types of lifestyle modifications that I would recommend for C.S. to control his blood pressure includes nutrition and diet. You can begin a plant-based, Mediterranean diet, or DASH Eating Plan. The foods and drinks included in the DASH Eating Plan are fruits, vegetables, fat-free or low-fat milk, whole grains, fish, poultry, beans, seeds, or nuts. You can also decrease your dietary intake of sodium. Another lifestyle modification you can make is moderation of alcohol intake and avoidance of tobacco products. If you live an active lifestyle, that can help to control your blood pressure as well.