

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?

C. S. has risk factors for hypertension including a heavy fast-food diet, a pack per day cigarette smoker and sedentary lifestyle because of his career as a truck driver. His weight could also possibly be a risk factor if it classifies him as obese.

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

I would assess C. S. for manifestations of hypertension including heart palpitations, angina (chest pain), dizziness, shortness of breath, or fatigue.

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

I would assess C. S. for complications such as coronary artery disease, heart failure, nephrosclerosis, retinal damage, etc. Heart failure, for example could be manifested by shortness of breath or fatigue. For another example, if C. S. is experiencing ischemic leg pain, that may indicate peripheral vascular disease, or blurry vision/loss of vision indicating 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 healthcare provider may order diagnostics for C. S. including urinalysis, ECGs, creatinine clearance levels, or ambulatory blood pressure monitoring just to name a few. Urinalysis will look for renal involvement in hypertension, as will creatinine clearance but more specifically looking at glomerular filtration rate. Ambulatory blood pressure monitoring will measure C. S.’s blood pressure at intervals over 12 to 24 hours.

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?

To control his BP, C. S. should be educated on lifestyle modifications such as weight loss, following a DASH diet, or a dietary sodium restriction. The DASH diet for example includes fruits, vegetables, poultry, seeds, beans, etc where meat should never be fried. With dietary sodium restriction, C. S. should consume equal to or less than 2300mg of sodium a day, or equal to or less than 1500mg for an even stronger effect. C. S. should be

encouraged to try and get 150 minutes of exercise a week, and also should be educated on smoking cessation.