

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 risk factors for hypertension does C.S. have?

Some of the risk factors that the patient displays that is relevant to hypertension include: his sedentary lifestyle with truck driving, consistent fast food indulgence, his history of smoking a pack per day, solely being male, and his blood pressure of 182/104. He can easily be classified as having stage two hypertension. Also not keeping up on his annual doctor visits and his weight can be added as additional risk factors. From his height, his BMI index is 33 which can consider him morbidly obese.

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

I would assess him for pitting edema in his BLE, frequent urination (specifically dark concentrated urine), auscultate for crackles, generalized erythema, excessive thirst, tachycardia, bounding irregular pulses on his brachial and radial pulse sites, weak thready pulses in his BLE, auscultate S1 and S2 sounds for irregularities, generalized swelling, delayed capillary return on his BLE, leg pain improved with rest, skin cool to touch, and discolored skin.

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

I would assess for fatigue, dizziness, palpitations, angina, headaches, worsening eyesight (blurred vision), decreased renal function, and dyspnea at rest and on exertion.

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.?

Some diagnostic tests that I would expect to see ordered are labs to be drawn specifically for a CBC, BMP, UA, lipid profile, and ECG and strict I+O's for a 1500 mL fluid restriction. The fluid restriction can be based on possible anti-hypertensive medication that could be ordered due to impaired circulation.

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?

Some lifestyle modifications that I would educate him on a low sodium heart healthy diet. I could also recommend a plant based or Mediterranean diet to decrease his sodium intake by also encouraging the DASH diet (adding diet variety). I would educate him to wear TED shoes while driving and to take frequent breaks to prevent severe swelling in his legs. I would also educate him on straying from convenient foods and beverages that contain high sodium. This would include reducing intake of fast food, processed meats, and sugary snacks. I would educate him on eating in moderation and implementing more low-fat or fat-free items into his diet like grilled chicken and dark greens. I would educate him to stray from red meats that can cause

inflammation and exacerbate his HTN. I would educate him on refraining from smoking tobacco as this adds more stress on his heart and arteries to provide adequate perfusion to his extremities. I would educate him on doing 30 minute exercises five days a week to promote healthy circulation. I would also educate him to keep a journal of his daily blood pressures to take at home. I would also educate him on limiting any possible alcohol intake to two drinks a day. I would also educate him fresh farm markets and local food pantries to easily access nutritious foods that are affordable. I would also educate him on meal prepping these food items for work so he won't have to rely on fast food for sustenance. I would also educate him on keeping up with his follow up appointments 3-6 months post discharge.