

Hypertension Case Study  
MSN  
**Kennedy Cantelli**  
**February 2<sup>nd</sup>, 2023**

C.S. is a 40-year-old male who attends a community health screening. He states that he has not seen a healthcare 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 risk factors for hypertension that C.S. shows/have come from both modifiable and non-modifiable risk factors.
- Those modifiable risk factors include tobacco usage, excess dietary sodium intake (fast food), obesity possibly due to his weight for his age, stress from work and having to keep him calm, and a sedentary lifestyle from long hours of driving.
- Last but not last, they are two main non-modifiable risk factors that C.S. has. These include age and gender. Both of these correlate together because men more commonly have hypertension in early life until they are around the age of 50 when then women share a higher rate of hypertension.

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

- With the risk factors that C.S. presents, the clinical manifestations I would assess for are signs of fatigue, dizziness, angina, dyspnea, and palpitations. These signs and symptoms are signs you see in patients who have severe hypertension, however, it is never too early to manage and maintain a regimen for blood pressure hence why it is known for being a “silent killer”. Patients can sometimes be asymptomatic for years until one day their blood pressure is severely high and it can be too late. Also, it can lead to many other complications that may or may not be easy or affordable to treat.

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

- I would assess C.S. for complications of coronary arterial disease, left ventricular hypertrophy, heart failure, cerebrovascular disease, peripheral vascular disease, nephrosclerosis, retinal damage, and most commonly, targeted organ disease or strokes. Patients with hypertension have a four times more likely chance to experience a stroke so yearly checkups or even more frequent checkups are highly recommended to maintain normal blood pressure to prevent any of the following complications. Not only can it affect a patient’s daily life, but it can affect many other organs in the body including the kidneys, eyes, heart, brain, etc.

**C.S. is referred to his healthcare 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 studies that I would expect for C.S. are ambulatory blood pressure monitoring (ABPM) to measure his blood pressure in timely intervals over a 12-24 time frame, maintaining a diary to record reasons for rises in blood pressure or even lows, an echocardiogram, serum electrolytes, glucose to see if he has a possibility of diabetes, urinalysis, BUN and serum creatinine, etc. These are all preventative so it definitely never hurts to get these diagnostic studies done early so we can maintain a regimen for if our patient has hypertension.

**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?**

- Lifestyle modifications I would recommend for C.S. to control his blood pressure are lowering/ quitting his tobacco usage and losing weight because the more a patient can lose, the lower the blood pressure can be. Also, providing education on changing his nutritional diet, lowering his sodium intake, and eating more nutritional items such as fruit, vegetables, whole grain, fish, beans, etc. These lifestyle modifications can improve a patient's physical and mental health, so patient education for all lifestyle changes is extremely important.