Putting Prevention into Practice

An Evidence-Based Approach

Screening for Hypertension in Adults

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Case Study

A 23-year-old patient, M.C., comes to your office for a wellness visit with no concerns. On reviewing the patient's medical record, you note that M.C. has a history of polycystic ovary syndrome, blood pressure of 110/70 mm Hg from a visit one year ago, and a body mass index of 28.2 kg per m^2.

Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF) recommendation statement, which one of the following steps regarding screening for hypertension is appropriate for M.C.?

- ☐ A. Screen M.C. for hypertension today because of the patient's history of polycystic ovary syndrome.
- ☐ B. Defer screening M.C. for hypertension for another two to four years because the patient's blood pressure was not elevated one year ago.
- ☐ C. Screen M.C. for hypertension today because the patient's body mass index is in the overweight range.
- ☐ D. Defer screening M.C. for hypertension until 40 years of age.
- ☐ E. Ask M.C. to begin monitoring their blood pressure at home.

2. M.C. had a blood pressure of 143/81 mm Hg upon arrival in the examination room. M.C. reports no headache, blurry vision, chest pain, shortness of breath, or blood in urine. According to the USPSTF recommendation statement, which one of the following steps is correct?

- ☐ A. Prescribe the patient an angiotensin-converting enzyme inhibitor, such as lisinopril, and schedule a follow-up visit in three months.
- ☐ B. Ask M.C. to monitor their blood pressure at home and schedule a follow-up visit to discuss the results.
- ☐ C. Prescribe the patient a calcium channel blocker, such as amlodipine (Norvasc), and schedule a follow-up visit in three months.
- ☐ D. Wait until the next follow-up visit in six to 12 months to confirm the diagnosis of hypertension.
- ☐ E. Repeat the blood pressure measurement today and prescribe an antihypertensive medication if the blood pressure remains elevated.

3. Which of the following blood pressure monitoring methods can you use to confirm a diagnosis of hypertension in this patient?

- ☐ A. Ask M.C. to wear a programmed portable device that automatically takes blood pressure measurements, typically in 20- to 30-minute intervals over 12 to 24 hours, while patients go about their normal activities or are sleeping.
- ☐ B. Ask M.C. to measure their own blood pressure at home with an automated device placed on the upper arm.
- ☐ C. Ask M.C. to follow up in the office in two months to reassess their blood pressure on another day.
- ☐ D. No additional blood pressure readings are necessary to confirm the diagnosis of hypertension.

Answers appear on the following page.

This PPIP quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and supporting documents on the USPSTF website (https://www.uspreventiveservicestaskforce.org). The practice recommendations in this activity are available at https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hypertension-in-adults-screening.

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CME **This clinical content** conforms to AAFP criteria for CME. See CME Quiz on page 128.

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Answers

1. The correct answer is C. Although available evidence on optimal screening intervals for hypertension remains limited,[1] the USPSTF suggests annual screening for hypertension in adults 40 years or older and for adults at increased risk for hypertension, including Black people, people with high-normal blood pressure, or people who are overweight or obese. Screening less frequently (i.e., every three to five years) is appropriate for adults 18 to 39 years of age not at increased risk for hypertension and with a previous normal blood pressure reading.[2] Polycystic ovary syndrome is not considered, in itself, an indication for annual blood pressure screening.

2. The correct answer is B. For adults 18 years or older without known hypertension, the USPSTF recommends screening for hypertension with office blood pressure measurement. The USPSTF recommends obtaining blood pressure measurements outside of the clinical setting for diagnostic confirmation before starting treatment.[2] Selection of treatment can vary depending on severity of blood pressure elevation, age, and other risk factors.

3. The answers are A and B. The USPSTF recommends obtaining blood pressure measurements outside of the clinical setting for diagnostic confirmation before starting treatment.[2] Either ambulatory or home blood pressure monitoring with validated and accurate devices can be used to confirm a diagnosis of hypertension before starting treatment. Ambulatory blood pressure monitoring involves wearing a programmed device that automatically takes frequent blood pressure measurements over the course of a day (or day and night). Ambulatory blood pressure monitoring devices are small, portable machines that record blood pressure noninvasively at typically 20- to 30-minute intervals over 12 to 24 hours while patients go about their normal activities or are sleeping. See a related article in *FPM* about implementing ambulatory blood pressure monitoring for more information.[3] Home blood pressure monitoring involves patients measuring their own blood pressure at home with a home blood pressure monitoring device. Home blood pressure monitoring devices are fully automated oscillometer devices that record measurements taken from the patient's brachial artery. Home blood pressure monitoring devices are activated by patients or caregivers, and measurements are taken much less frequently than with ambulatory blood pressure monitoring (e.g., one to two times a day or week, although the blood pressure measurements can be spread out over more time).[2]

The views expressed in this work are those of the authors and do not reflect the official policy or position of the Johns Hopkins Bloomberg School of Public Health or the U.S. government.

References

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2. Krist AH, Davidson KW, Mangione CM. Screening for hypertension in adults: US Preventive Services Task Force reaffirmation recommendation statement. *JAMA*. 2021; 325(16):1650-1656.
3. Kronish IM, Hughes C, Quispe K, et al. Implementing ambulatory blood pressure monitoring in primary care practice. *FPM*. 2020;27(3):19-25. Accessed June 13, 2021. https://www.aafp.org/fpm/2020/0500/p19.html ■