



# USPSTF urges extra step before treating hypertension

Use ambulatory or at-home blood pressure measuring to confirm high readings found in the office. Vary screening intervals according to patient age and risk factors.

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Screening for and treating high blood pressure (HBP) to prevent cardiovascular and renal disease is a tried-and-true preventive intervention that is supported by strong evidence. And not surprisingly, when the US Preventive Services Task Force (USPSTF) recently updated its 2007 recommendation for blood pressure screening for adults, it once again gave an A recommendation for those ages 18 years and older. What is noteworthy, however, is that this update concentrates on the accuracy of blood pressure measurement methods and optimal frequency of screening.<sup>1</sup>

The most significant modification of past recommendations is that HBP found with office measurement of blood pressure (OMBP) should be confirmed with either ambulatory blood pressure monitoring (ABPM) or home blood pressure monitoring (HBPM) before starting treatment. (For its recommendation, the USPSTF used the HBP definition from the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure [TABLE 1].<sup>2,3</sup>)

**■ Ensuring accurate blood-pressure measurements.** More than 30% of adults in the United States have HBP, with prevalence increasing with age (TABLE 2).<sup>2</sup> Only about half of this population has HBP under control.<sup>4</sup> This modifiable condition contributes to more than 360,000 deaths annually.<sup>2</sup> However, while treatment of true HBP results in substantial benefits, it is important not to over-diagnose HBP and over-treat it.

Studies have shown that 15% to 30% of individuals diagnosed with HBP in a clinical setting will have blood pressure in the normal range when measurements are taken outside of the doctor's office.<sup>1</sup> This discrepancy can be due to measurement error, regression to the mean, recent caffeine ingestion by the patient, or isolated clinical hypertension wherein the stress and anxiety caused by clinic visits elevates blood pressure transiently.

With this in mind, the USPSTF recommends that OMBP-detected HBP be confirmed with either ABPM or HBPM. Of these 2 follow-up methods, ABPM is supported by stronger evidence and is preferred. The USPSTF includes HBPM as an alternative because ABPM equipment may not always be available—or affordable—and using the equipment may present logistical challenges.

## Starting off on the right foot

Screening for HBP in a clinical setting is more accurate if conducted according to recommended procedures: use an appropriately sized cuff; take the measurement at least 5 minutes after the patient's arrival while he or she is seated with legs uncrossed and the cuffed arm is at the level of the heart; and record the mean of 2 separate measurements. There appears to be no real difference in the accuracy of automated vs manual sphygmomanometers.

**■ Optimal frequency of screening varies.** While the USPSTF found little evidence to support any particular overall screening fre-

TABLE 1

### Clinical classification of blood pressure measurements in adults<sup>2,3</sup>

Classification	SBP (mm Hg)	DBP (mm Hg)
Normal	<120	and <80
Prehypertension	120–139	or 80–89
Stage 1 hypertension	140–159	or 90–99
Stage 2 hypertension	≥160	or ≥100

DBP, diastolic blood pressure; SBP, systolic blood pressure.

TABLE 2

### High blood pressure prevalence in US adults, 2010<sup>2</sup>

Demographic	Characteristic	Male (%)	Female (%)
Overall	All individuals	33.6	32.2
Age (years)	20-34	9.1	6.7
	35-44	24.4	17.6
	45-54	37.7	34
	55-64	52	52
	65-74	63.9	70.8
	75+	72.1	80.1
Race	Non-Hispanic white	33.4	30.7
	Non-Hispanic black	42.6	47
	Mexican American	30.1	28.8
	Asian	21.2	–
	American Indian/Alaska native	24.8	–

➤ Up to 30% of individuals diagnosed with high BP in a clinical setting will have BP in the normal range when measurements are taken outside of the doctor's office.

quency, it recommends annual screening for those who are 40 years of age or older and those ages 18 to 39 who are obese or overweight, are African American, or who have high-normal blood pressure (TABLE 3).<sup>1</sup> Screening every 3 to 5 years is recommended for individuals not in these categories.

■ **Initial steps in treating HBP.** The Task Force also commented on which medications to use when initiating HBP treatment (after lifestyle and dietary interventions). Non-African Americans should receive a thiazide diuretic, calcium channel blocker, angiotensin-converting enzyme inhibitor, or angiotensin-receptor blocker. African Americans should begin treatment with a thiazide diuretic or calcium channel blocker. These recommendations appear to have been adopted from the Eighth Joint National Commit-

tee, since the accompanying evidence report for the USPSTF's update did not address this issue.<sup>5</sup>

#### Don't forget patient support

Patient support is key. As of June 2015, the Community Preventive Services Task Force (CPSTF) recommends self-measured blood pressure monitoring combined with additional support as a means of improving blood pressure control in those with HBP.<sup>4</sup>

Supportive measures include things such as patient counseling on medications and health behavior changes (eg, diet and exercise); education on HBP and blood pressure self-management; and use of secure electronic or Web-based tools such as text or e-mail reminders to measure blood pressure, show up

TABLE 3

**Screen these individuals annually for high BP<sup>1</sup>**

Age ≥40 years
Age 18 to 39 years who are at increased risk for high blood pressure due to one or more factors:
<ul style="list-style-type: none"> <li>• Obesity or overweight</li> <li>• African American ethnicity</li> <li>• High-normal blood pressure (130-139 mm Hg/85-89 mm Hg)</li> </ul>

for appointments, or communicate blood pressure readings to healthcare providers. Patients who participate in home self-measurement of blood pressure with additional support lower their systolic blood pressure, on average, 1.4 mm Hg more than those who do not.<sup>4</sup>

**Remaining questions**

The new USPSTF recommendation leaves several issues unaddressed. For one thing, the Affordable Care Act mandates that commercial health insurance plans provide services with an A or B Task Force recommendation to patients with no copayments. So does the new HBP recommendation mean payers have to make ABPM and HBPM available to patients at no charge?

There are other questions, too. If HBP detected by OMBP is not confirmed when ABPM is performed, should ABPM be repeated, and if so, at what interval? What is the role of emerging technologies that use devices other than arm cuffs to measure blood pressure?

Despite these uncertainties, the new USPSTF and CPSTF recommendations refine the longstanding in-office-only approach to diagnosing and monitoring HBP and advocate newer technologies that could help improve diagnostic accuracy, avoid over-diagnosis and over-treatment, and improve patient adherence to treatment goals. JFP

References

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**PART 1: The current climate in breast cancer**

By Bobby Daly, MD, MBA, and Olufunmilayo I. Olopade, MD, FACP, OON

Introducing “A Perfect Storm,” a five-part series that discusses the pathologic, genomic, and clinical factors that contribute to the racial survival disparity in breast cancer.

The series was adapted from an article originally published in *CA: A Cancer Journal for Clinicians* (a journal of the American Cancer Society) and reviews innovative interventions to close this survival gap. Part 1, which reviews the scope of this important health care issue, is available online at [jfonline.com](http://jfonline.com). Simply type “Perfect Storm” into the search tool.

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