

5 key takeaways physicians should know about the new BP statement

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Sara Berg, MS

Senior News Writer

Hypertension remains one of the most prevalent cardiovascular risk factors in adults worldwide. To properly diagnose and manage hypertension, accurate measurement of blood pressure (BP) is essential, according to the updated American Heart Association (AHA) scientific statement on BP measurement in humans.

The new statement, published in the journal *Hypertension*, is the first comprehensive update on BP measurement since 2005. It provides an overview of what is currently known about BP measurement and supports recommendations from the 2017 hypertension guideline, which came from a joint task force formed by the American College of Cardiology (ACC) and the AHA. The ACC and AHA partnered with several organizations representing physicians and other health professionals to create the 2017 guideline.

Routine BP measurements obtained in clinical practice settings are frequently performed incorrectly. However, the availability of semi-automated and fully automated office blood pressure (AOBP) measurement devices can improve the accuracy in-office BP measurements.

Here are five things physicians and other health care staff can take away from the new Scientific Statement on BP measurement.

Accurate BP measurement is key. The accurate measurement of BP is essential for the diagnosis and management of hypertension.

“We have been working for years emphasizing the importance of accurate measurement of blood pressures being a critical factor for the diagnosis and management of hypertension,” said Michael Rakotz, MD, the AMA’s vice president of chronic disease prevention and management. “For many years it has felt like we were fighting an uphill battle because most physicians tell us they prefer their manual measurements over using automated BP devices.”

Dr. Rakotz added that “when we could convince people to use the automated devices, there’s a misperception that the problem of accurate blood pressure measurement will be solved.”

“Automated devices can reduce human error that is commonly associated with auscultatory measurements, which is a big reason auscultatory measurements are being replaced by the use of automated devices in both clinical practice and research,” he added. “But there is much more to accurate measurements than automated devices alone.”

“Proper patient preparation, making sure that people haven’t used nicotine, caffeine or exercised for 30 minutes before coming into the office, and that they don’t have a full bladder, all impact blood pressure measurements,” Dr. Rakotz said. “Next you have to rest patients for three to five minutes before a blood pressure is measured.

“Patient positioning is also critical. People need to be seated in a chair with their back and feet supported, with legs uncrossed, and arm supported on a firm surface with a correctly sized cuff properly positioned over the brachial artery at heart level. All of these things are important,” he added.

Use AOBP measurement devices. The use of validated AOBP devices in the office setting helps physicians and health care professionals obtain accurate, representative measurement. An AOBP device can be programmed to take and average three readings, which is now the preferred approach for evaluating office BP over using auscultation for most patients. To ensure the patient and staff member are not talking during BP measurement—and to improve workflow efficiency—unattended AOBP is preferred over attended BP in many practice settings.

“We now have the ability to use an automated device in as little as five minutes time to provide the average of three blood pressure measurements with no one else in the room, virtually eliminating the white coat effect,” said Dr. Rakotz. “This gives a blood pressure average from inside the office that is closer to the daytime BP average from 24-hours of ambulatory monitoring than conventional office blood pressures.”

“Out of office blood pressures are a better predictor of future cardiovascular risk, so it is great to have the information in real time, and much more convenient for patients,” he said, cautioning that AOBP is not a substitute home or ambulatory blood pressure monitoring.

Use 24-hour ambulatory BP monitoring. 24-hour ambulatory blood pressure monitoring (ABPM) remains the reference standard for BP measurement. Self-measured BP at home (SMBP), or, as it is referred to in this scientific statement - home blood pressure monitoring (HBPM), is a good alternative when ABPM is not available or tolerated for making the diagnosing of hypertension. SMBP at home is preferred for ongoing monitoring of patients with an established diagnosis to assess effectiveness of treatment over time.

Place cuff over upper arm. Validated devices that measure BP over the upper arm remain the most accurate choice compared to other available options. While finger, wrist, mobile health and wearable devices are currently being studied, none are as accurate or reliable for hypertension diagnosis and management. For clinical use, upper arm cuffs remain the standard for proper BP measurement.

“The Statement goes into great detail on how to properly fit and place a cuff because that has long been one of the leading sources of technique errors in blood pressure measurement,” said Dr. Rakotz.

Provide initial and ongoing training. Regardless of the method used to measure a patient’s BP, initial and ongoing training of physicians, technicians and other health care staff is crucial to treatment success.

“We cannot overstate the importance of using only validated devices, routinely calibrating and maintaining BP measurement devices, and having BP measured by health care providers who have been properly trained,” said the statement.

The AMA has developed tools and resources using the latest evidence-based information to support physicians to help manage their patients’ high blood pressure. These resources are available to all physicians and health systems as part of Target: BP™, a national initiative co-led by the AMA and AHA.

Target: BP offers annual, recurring gold-level recognition for all participating sites that achieve hypertension control rates of 70 percent or higher among their patient population of adults with hypertension, and participation level recognition for those sites that prioritize improving blood pressure control each year and submit data. In 2018, more than 800 organizations were recognized for their efforts focusing on blood pressure control within the populations they serve.