When targeting high BP, draw on this evidence-based framework

MAY 3, 2017

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Multiple studies have made it abundantly clear that hypertension is a major health problem in the U.S. and around the world. An estimated 80 million Americans—about one-third of the adult population—suffer from hypertension, putting them at increased risk of strokes, heart attacks and other disorders.

A recent article in *The Journal of Clinical Hypertension* provides a framework to optimize accurate blood-pressure readings and boost patient adherence to treatment. It should help physicians enhance management of hypertension, which is defined as a consistent blood pressure reading of 140/90 mm Hg or higher.

The article outlines the “measure accurately, act rapidly and partner with patients” (M.A.P.) approach to hypertension management. The foundation for the paper is the recognition that primary care physicians cannot do it all. They need to work more effectively with medical assistants, nurses and other members of practice team, said Romsai T. Boonyasai, MD, MPH, assistant professor at Johns Hopkins University School of Medicine and a member of the Johns Hopkins Armstrong Institute for Patient Safety and Quality. The article describes a team-based approach for treating patients with hypertension.

Dr. Boonyasai expanded on M.A.P.’s three key components in an interview with *AMA Wire®*.

**Measure accurately**: Team-based hypertension management depends on having accurate blood pressure readings at all teams, whether they are measured by physicians, medical assistants or even patients themselves. Unfortunately, studies have found that primary care clinicians may have as much as a one-in-five chance of making an incorrect treatment decision if they rely on a typical office reading.

“Many offices still use a manual blood pressure device, but it requires fine motor skills and a good
[understanding] of the physiology of blood pressure measurements,” said Dr. Boonyasai. “For example, I have seen some medical practices deflate a manual cuff too quickly, causing the blood pressure reading to appear 20 to 30 mm Hg lower than it really is.”

For this reason, Dr. Boonyasai and his co-authors—among them Michael Rakotz, MD, AMA vice president of chronic disease prevention and management—recommend that physician practices use an automated blood pressure-measurement device whenever possible.

By making the technique easier, automated devices also let practices emphasize patient preparation and positioning. For example, health professionals measuring BP should always place cuffs on the patient’s bare arm, with the cuff entirely covering the arm’s circumference. In addition, staff must ensure proper positioning of the patient prior to the reading: seated in a chair with back support, with feet planted firmly on the floor, legs uncrossed and arms supported. Patients should have an empty bladder, and physicians and staff should refrain from talking with patients during the reading.

Finally, automated devices make it easier to confirm this reading with a more precise, repeat measurement if the first reading is 140/90 mm Hg or higher. Unlike a manual device, which requires the blood-pressure taker to be with a patient throughout the measurement process, an automated device allows physicians and their teams to attend to other patient-care tasks simultaneously.

“Even though the entire process of getting a repeat blood pressure measurement can take five to six minutes, automated devices can keep practice flow going so that physicians can have accurate, double-checked data before they going to the examination room.”

**Act rapidly:** Once patients have been diagnosed with hypertension with at least two high BP readings, the patient should be started on evidence-based treatments and monitored closely until their blood pressure is controlled.

“A lot of times, we start patients on a medicine but then follow up with them three or four months later,” Dr. Boonyasai said. “The problem with this is that if the dose was too low or if the patient had a problem with taking the medicine, we lose the momentum to help patients adjust their treatment plan.” Typically, patients should be seen every two to four weeks until their hypertension is brought under control.

Evidence-based treatments include both diet, weight loss and other lifestyle changes, as well as medicines. And while a lot of different types of antihypertensive medications are on the market, thiazide diuretics, dihydropyridine calcium channel blockers, ACE inhibitors (ACEI) or angiotensin receptor blockers (ARB) are backed by the strongest evidence, though ACEIs and ARBs should never be taken together. If hypertension is particularly recorded at 160/100 mm Hg or above,
physicians may opt to start patients on two medications. In situations like this, single-pill combination therapy has been shown to be particularly effective in helping patients achieve BP control.

**Partner with patients, families and communities:** Dr. Boonyasai and his co-authors echo the growing body of research suggesting that one of the most effective ways to achieve a desired health outcome—in this case, improving the national hypertension control from 54 percent to 70 percent—is by enhancing communication between patients and physicians.

“There is a wealth of evidence that when we interact with patients in a collaborative way, they are much more likely to adhere to changes” needed to improve their health, he said. Results of such collaboration can yield outcomes that are as positive in patients who appear “disengaged” as in those who seem “engaged,” he said.

For patients with hypertension, it’s important for physicians and other health professionals to communicate as explicitly, yet nonjudgmentally, as possible about needed lifestyle changes. These may include adherence to drug therapy regimens as well as dietary modifications and an uptick in physical activity. A diet rich in fresh fruits and vegetables, whole grain, low-fat dairy, poultry, fish and plant-based oils, and that is also low in sodium and sugar intake has been shown in randomized controlled trials to lower blood pressure as effectively as antihypertensive medications. That is the basis for Dietary Approaches to Stop Hypertension (DASH) diet.

Furthermore, for patients with hypertension who are overweight, the single most effective approach to lowering BP is weight loss, said Dr. Boonyasai. “We always emphasize cutting out salt, for which we can expect a reduction in systolic blood pressure of 2 mm Hg, but eating a DASH diet or losing weight can reduce systolic blood pressure by 10 or even 20 mm Hg,” he noted.

**Team approach to M.A.P.**

The MAP approach takes as a given that all members of physician practices need to be conversant with correct blood-pressure measurement techniques. “There’s a strong recognition that we can’t do it all ourselves,” said Dr. Boonyasai.

As for raising the control rate beyond the slim majority of Americans who have their high BP under control, Dr. Boonyasai said, “We have a long way to go, but I wouldn’t discount our achievements. Fifteen years ago, one-third of patients had achieved control. That’s a pretty remarkable improvement.”

Two complementary programs recognize physician practices for making strides in improving blood-pressure control among their patients.
The Million Hearts Hypertension Control Challenge is a federal competition to identify clinicians, practices and health systems that have achieved a hypertension control rate of 70 percent or greater among their patients with hypertension and award them with recognition for their work.

Target: BP™ is a national initiative co-led by the American Heart Association and the AMA. In addition to direct access to trained field support specialists, a data platform and a suite of evidenced-based tools and resources offered by the AMA and the AHA, Target: BP offers annual, recurring recognition for all participating sites that achieve hypertension control rates of 70 percent or higher among their adult patient population year over year.

A growing number of physician practices are finding success using self-measured blood pressure to help keep patients’ hypertension in check. Now is an opportune time to get started or ramp up such efforts, as the American Heart Association (AHA) is collaborating with the World Hypertension League to record 25 million self-measured BP readings worldwide by May 17, which is World Hypertension Day. Encourage your patients to check their BP and then visit the AHA website and click the “I’ve checked my blood pressure” button.