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EDITOR'S PAGE

High Blood Pressure Guidelines

Welcomed Advice, But Let's Not Lose the Patient Amid the Numbers

Valentin Fuster, MD, PhD

Even though hypertension is a leading cause of death globally, the last document that officially addressed this patient population was the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC7) recommendations, which were published 15 years ago (1). During the American Heart Association (AHA) Scientific Session last November, the 2017 American College of Cardiology (ACC)/AHA high blood pressure guideline was released (2), resulting in a great deal of excitement and media coverage. After the guideline was published, I downloaded the executive summary to ascertain a quick understanding during the busy conference (3). Much to my chagrin, I learned that this paper alone was 133 pages. Not much of a summary, in my opinion. However, when I had a little more time, I was able to delve into the guideline itself, as well as the accompanying analysis by Muntner et al. (4).

Simply, the new guideline drops both the systolic and diastolic blood pressure levels by 10 mm Hg, compared with the 2003 JNC7 guideline. Thus, the 2017 ACC/AHA guideline recommends using lower systolic and diastolic blood pressure levels to define hypertension (≥130/80 mm Hg vs. ≥140/90 mm Hg). Muntner et al. (4) reported that according to the 2017 ACC/AHA and JNC7 guidelines, the overall crude prevalence of hypertension among U.S. adults was 45.6% and 31.9%, respectively.

Practically speaking, the new guideline suggests that we will start treating patients with blood pressure ≥130/80 mm Hg, excepting those at lower risk. Patients who are at lower risk include those younger than age 65 years and those without concomitant risk factors, such as diabetes. For these low-risk patients, treatment could begin according to the JNC7 guideline standard, when their blood pressure reaches 140/90 mm Hg.

With this being said, I have 3 questions about the 2017 ACC/AHA high blood pressure guideline that deserve attention:

1. The new designation of "elevated blood pressure" in patients with 120/80 mm Hg may become confusing, as it may result in unnecessary treatment by general practitioners. Although I recognize that the new guideline recommends nonpharmacological treatment for these patients, most clinicians do not understand every aspect of the guideline in the way that the authors understand them. In fact, I already have received calls from a number of patients whose blood pressure was previously well controlled, but have since taken steps to reduce it below 120/80 mm Hg, resulting in lightheadedness and fatigue. I had begun to witness the phenomena after the SPRINT (Systolic Blood Pressure Intervention Trial) (5) and HOPE-3 (Heart Outcomes Prevention Evaluation-3) trial (6) were released in 2015 and 2016, when the message of "lower is always better" was widely disseminated, particularly with the SPRINT trial.
2. On the other hand, among U.S. adults taking antihypertensive medication, 53.4% and 39.0% had blood pressure levels above the treatment goal according to the 2017 ACC/AHA and JNC7 guidelines, respectively (4). Therefore, a substantial proportion of the U.S. population is not properly

From the Zena and Michael A. Wiener Cardiovascular Institute, Icahn School of Medicine at Mount Sinai, New York, New York.

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controlling blood pressure levels based on either guideline, so we as clinicians need to be more aware of such discrepancies.

3. Finally, of greatest concern, approximately 15% to 30% of hypertensive Americans are not aware that they have high blood pressure (7,8), and this awareness is much lower in low- to middle-income countries. This lack of awareness presents a tremendous challenge for clinicians and their patients. Thus, irrespective of guidelines that seek to make recommendations about 10 mm Hg either way, we first need to identify those patients who everyone agrees are hypertensive.

In conclusion, it seems that blood pressure management presents the first real opportunity for personalized medicine within the cardiovascular field. Caregivers should be discussing blood pressure with their patients to understand the appropriate level for each person. Furthermore, we need to prioritize those patients who have high blood pressure. The attention that the guideline has received may present just the opportunity to broach these conversations with each of our patients individually.

ADDRESS FOR CORRESPONDENCE: Dr. Valentin Fuster, Zena and Michael A. Wiener Cardiovascular Institute, Icahn School of Medicine at Mount Sinai, One Gustave L. Levy Place, New York, New York 10029. E-mail: valentin.fuster@mountsinai.org.

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