

## **A Closer Look at the Cardiology PRN**

The Cardiology Practice and Research Network (PRN) consists of students, residents, fellows, clinical pharmacists, and other practitioners with an interest in cardiovascular disorders. As the fourth-largest ACCP PRN, the Cardiology PRN has a total membership of 1219, which includes 182 students, 73 residents, and 10 cardiology fellows. The PRN's mission is to advance the pharmacotherapy of cardiovascular disorders through promoting excellence in education, research, and clinical practice by enhancing its members' knowledge, skills, and productivity. The PRN's objectives are to provide a means for communication and networking among members; provide quality educational programming at national meetings; use the Internet to facilitate access to information, expertise, and professional opportunities available through the PRN; and provide opportunities for collaborative research.

The Cardiology PRN has many opportunities for professional growth through service on eight committees: Membership, Budget/Finance, Research/Scholarship, Resident/Student, Programming, Nominations, Communications/Social Media, and Executive. Each committee has defined responsibilities to advance the field of Cardiology Pharmacy Practice, with new charges developed each year.

The Cardiology PRN constantly looks for ways to reach members through various platforms. The e-mail list is quite active, with frequent questions that generate discussion regarding patient scenarios and clinical controversies. In addition, the PRN is active on social media platforms, including Twitter (@accpcardprn) and Facebook ([www.facebook.com/accpcardprn](http://www.facebook.com/accpcardprn)).

### Opportunities and Resources

The Cardiology PRN has a strong presence of resident, fellow, and student members and supports the active involvement of trainees. One of the PRN's most popular initiatives is the online journal club, which allows residents to engage the entire PRN each month to critique recent high-profile articles pertaining to cardiovascular pharmacotherapy. In addition, a recent Professional Development Series was implemented to reach students and residents and help facilitate professional growth with topics such career-life balance, applying for residency, and how to perform peer review.

To further facilitate professional growth and networking, the Cardiology PRN provides two \$500 travel awards for residents, students, and fellows to attend the ACCP Annual Meeting. Often, these awards allow students, residents, and fellows to present their scholarship in the form of a poster at the general meeting and during the PRN's business meeting. The PRN also engages student, resident, and fellow members with networking opportunities and recognition during its business meeting.

The Cardiology PRN also has unique opportunities for members in training to promote professional growth throughout the year. Through its mentoring program, learners are matched with seasoned practitioners having similar professional interests. The mentors serve as a resource for learners and advise them in many areas such as professional development, scholarship, and career opportunities as they matriculate through their training programs.

### Cardiology Controversy

The highly anticipated new hypertension guidelines were released in 2017.<sup>1</sup> The 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults was the first complete guideline update since the JNC 7 hypertension guidelines were published in 2003.<sup>2,3</sup> The 2017 guidelines incorporate recent evidence that supports more aggressive blood pressure–lowering targets. In particular, the SPRINT trial showed a significant mortality reduction with aggressive blood pressure lowering to less than 120 mm Hg, which constitutes the driving force behind the changes in blood pressure goals.<sup>4</sup>

### Key Changes and Updates

One of the key differences between the old guidelines and the new 2017 guidelines is how hypertension is classified. Although normal blood pressure remains the same (less than 120/80 mm Hg), “elevated blood pressure” replaces the old nomenclature of “prehypertension” and is defined as a systolic blood pressure (SBP) of 120–129 mm Hg (Figure 1). In addition, the threshold for diagnosing stage 1 hypertension has been lowered to 130–140/80–89 mm Hg.

Figure 1. Comparison of blood pressure classifications.

### Revised Classifications for High Blood Pressure

*A comparison of JNC-7 and the 2017 guideline update*

JNC-7 Classification	Normal Blood Pressure	Prehypertension	Hypertension Stage 1	Hypertension Stage 2
2017 Updated Classification	Normal Blood Pressure SBP < 120 mmHg or DBP < 80 mmHg	Elevated BP SBP 120-129 mmHg + DBP < 80 mmHg	Hypertension Stage 1 SBP 130-139 mmHg or DBP 80-89 mmHg	Hypertension Stage 2 SBP ≥ 140 or DBP ≥ 90 mmHg

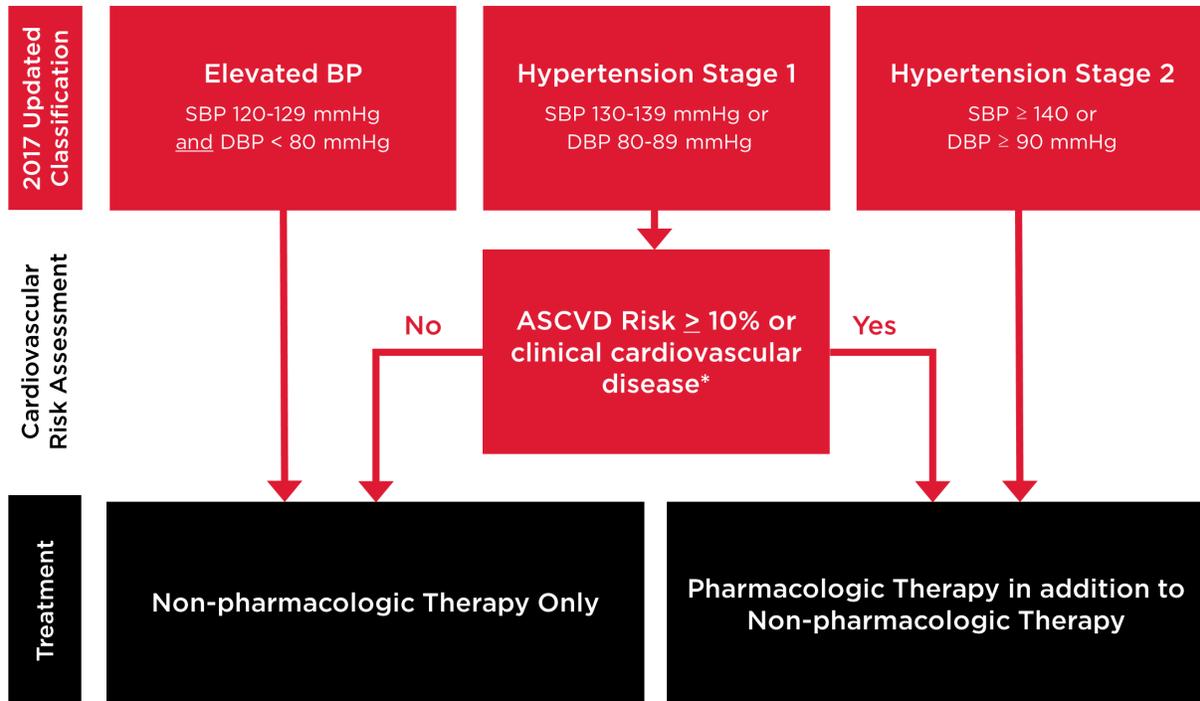
Abbreviations: DBP diastolic blood pressure, JNC-7 Joint National Commission 7, SBP systolic blood pressure  
References: *JAMA*. 2014;311(5):507. *J Am Coll Cardiol*. 2017 Nov 7. pii: S0735-1097(17)41519-1.

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Another major update to the hypertension guidelines is the incorporation of the estimated 10-year atherosclerotic cardiovascular disease (ASCVD) risk score to guide pharmacotherapy in those with stage 1 hypertension (Figure 2). Patients with stage 1 hypertension and an ASCVD risk score of 10% or greater or clinical cardiovascular disease warrant pharmacologic therapy. Patients who meet the criteria for blood pressure–lowering medications are recommended to be initiated on antihypertensive therapy as well as nonpharmacologic therapy (e.g., weight loss, exercise). For patients who do not meet the criteria for receiving antihypertensive therapy, nonpharmacologic therapy alone is recommended.

Figure 2. Treatment algorithm for hypertension under the 2017 hypertension guidelines.

## 2017 Recommendations for the Treatment of Hypertension in Adults



\*Defined as coronary heart disease, congestive heart failure, or stroke.

Abbreviations: DBP diastolic blood pressure, SBP systolic blood pressure, ASCVD atherosclerotic cardiovascular disease

Reference: *J Am Coll Cardiol.* 2017 Nov 7. pii: S0735-1097(17)41519-1.

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The new guidelines also provide recommendations for detecting white-coat hypertension. Added emphasis is placed on out-of-office blood pressure measurements to guide diagnosis and pharmacologic therapy. Furthermore, a multidisciplinary team-based care approach to managing hypertension is recommended to improve the quality of patient care. Pharmacists can play an integral role in this by helping manage and titrate pharmacologic therapy to control hypertension.

### Clinical Controversy

According to the newly lowered cutoffs for defining hypertension, 46% of U.S. adults will now meet the diagnostic criteria for hypertension, compared with 32% according to the JNC 7 hypertension guidelines.<sup>5</sup> This has raised concerns for increased drug costs and overuse of already stretched health care resources. A 2017 cost-effectiveness study used hypothetical, SPRINT-eligible patients in a simulation model and compared intensive blood pressure control (SBP less than 120 mm Hg) with lenient blood pressure control (SBP less than 140 mm Hg). The results showed that up-front costs of strict blood pressure control, including additional trips to the doctor's office, more medications, and more adverse events, would be offset by a reduction in cardiac events and treatment costs if sustained long term.<sup>6</sup>

Shifting the hypertension diagnostic criteria to incorporate lower blood pressure goals also has the potential to use more resources and time within the health care system. Although this could increase the demand for primary care providers, it is also an excellent opportunity for pharmacists to relieve some of the demand on primary care providers. The 2017 guidelines emphasize a multidisciplinary team-based approach to hypertension management, which should empower pharmacists to play a larger role in providing early intervention and frequent monitoring of blood pressure.

#### References

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