

Another piece of the Trainee Program is a dedication to trainee research. NAPCRG increased trainee research award prizes in order to recognize the immense work that students have tirelessly put into their research. This increase also promotes more trainees to bring their research, and possibly receive help or feedback on certain things they may need help with. Next, a special interest group (SIG) specifically composed of just trainees was created. This SIG will bring ideas to the chairs on the NAPCRG board of directors, provide a more tailored trainee experience at both the Annual Meeting and the preconference, and provide students engagement with their peers from around the world. Lastly, a membership subcommittee was created to provide backing to events and programs designed specifically for trainees. This committee was charged with creating the preconference, creating the stipend application program, and fostering the development of the trainee SIG, all of which will provide feedback and ideas for years to come.

The newly established Trainee Program provides an emphasis on fostering and cultivating trainee careers, because they are the physicians and researchers of tomorrow. NAPCRG holds to empowering and promoting students, residents, and fellows through personalized experiences not found anywhere else.

*Madison Willenborg, NAPCRG Intern,  
Pre-medicine student, William Jewel College*



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## TREATMENT OF HYPERTENSION IN ADULTS OVER AGE 60 TO HIGHER VS LOWER TARGETS: A CLINICAL PRACTICE GUIDELINE FROM THE AMERICAN COLLEGE OF PHYSICIANS AND THE AMERICAN ACADEMY OF FAMILY PHYSICIANS

### Executive Summary

Hypertension, defined as blood pressure >140/90 mm Hg, is a common chronic disease in the United States. It affects over a quarter of US adults and increases to almost two-thirds of adults aged over 60 years,<sup>1</sup> and represents a substantial burden on health care services and costs in the United States.<sup>2</sup> Appropriate management of hypertension reduces risk of cardiovascular

disease, renal disease, cerebrovascular disease, and death.<sup>3-6</sup> There is currently debate, however, on the most appropriate systolic blood pressure target in adults being treated for hypertension, particularly adults aged 60 years and older. The primary purpose of this guideline is to provide clinicians with evidence-based recommendations focused on the benefits and harms of higher (<150 mm Hg) vs lower (<140 mm Hg) systolic blood pressure targets for treatment of hypertension in adults aged 60 years and older.

A joint guideline development panel was convened with representatives from the American College of Physicians (ACP) and the American Academy of Family Physicians (AAFP) to develop recommendations based on a systematic review by the Portland Veteran's Administration Health Care System Evidence-based Synthesis Program<sup>7</sup> sponsored by the Veterans Administration. The guideline was created using the ACP's guideline development process, which is based on the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach<sup>8</sup> and is consistent with AAFP's methodology.<sup>9</sup> GRADE is a system where the strength of a recommendation is dependent on both the quality of evidence and the balance of benefits and harms (burden). Strong recommendations for a treatment or test are used when the benefits of treatment clearly outweigh the harms. Weak recommendations are used when there is a close balance of risk and benefit. The ACP and AAFP prioritize patient-oriented outcomes when evaluating the evidence and making recommendations. The outcomes evaluated for this guideline included all-cause mortality, stroke-related morbidity and mortality, cardiovascular events, and harms associated with higher and lower treatment targets.

The evidence report found high quality evidence that treating individuals with hypertension to moderate levels (<150 mm Hg) reduces mortality, stroke, and cardiovascular events. For patients with previous stroke or transient ischemic attack (TIA), moderate quality evidence showed treating to blood pressure targets to <130-140 mm Hg reduced the risk of recurrent stroke, but did not have a statistically significant effect on cardiovascular events or all-cause mortality. Blood pressure targets of less than 140 mm Hg may be a reasonable goal for some patients at high cardiovascular risk. This recommendation is based on low quality evidence showing a small decrease in stroke and cardiac events in patients at high cardiovascular risk who were treated to lower target levels. There were no significant increases in major harms associated with lower treatment targets including end stage renal disease, quality of life, functional status, or falls. There were increased reports of study withdrawals due to adverse events,

with cough and hypotension being the most frequently reported. There was also an increased risk of syncope associated with lower blood pressure targets. The decision to treat patients to lower blood pressure targets should be individualized and coupled with focused discussions with patients on benefits, harms, and costs.

Most patients aged over 60 years also have other multiple chronic conditions and it is important to perform an individualized assessment of benefits and harms. Although many of these patients theoretically will get a large benefit from aggressive blood pressure control, these patients are also susceptible to serious harms. In addition, these patients often are on multiple medications and difficult-to-manage drug regimens, increasing the risk of drug interactions.

Based on the evidence described above and in the evidence report, the panel agreed on the following recommendations:

**RECOMMENDATION 1:** ACP and AAFP recommend that clinicians initiate treatment in adults aged 60 years and older with persistent systolic blood pressure at or above 150 mm Hg to achieve a target systolic blood pressure of less than 150 mm Hg to reduce the risk of mortality, stroke, and cardiac events (strong recommendation, high quality of evidence). ACP and AAFP recommend that clinicians select the treatment goals for adults aged 60 years and older based on a periodic discussion of the benefits and harms of specific target levels of blood pressure with the patient.

**RECOMMENDATION 2:** ACP and AAFP recommend that clinicians consider initiating or intensifying treatment in adults aged 60 years and older with a history of stroke or TIA to achieve a target systolic blood pressure of less than 140 mm Hg to reduce the risk of recurrent stroke (weak recommendation, moderate quality of evidence). ACP and AAFP recommend that clinicians select the treatment goals for adults aged 60 years and older based on a periodic discussion of the benefits and harms of specific target levels of blood pressure with the patient.

**RECOMMENDATION 3:** ACP and AAFP recommend that clinicians consider initiating or intensifying treatment in some adults aged 60 years and older at high cardiovascular risk, based on individualized assessment, to achieve a target systolic blood pressure of less than 140 mm Hg to reduce the risk of stroke or cardiac events (weak recommendation, low quality of evidence). ACP and AAFP recommend that clinicians select the treatment goals for adults aged 60 years and older based on a periodic discussion of the benefits and harms of specific target levels of blood pressure with the patient.

For further reading on the evidence and recommendations, please refer to the AAFP summary and full

guideline at <http://www.aafp.org/patient-care/clinical-recommendations/all/hypertension-over-60.html>.

**Note:** Clinical practice guidelines are "guides" only and may not apply to all patients and all clinical situations. Thus, they are not intended to override clinicians' judgment.

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Amir Qaseem, MD, PhD<sup>1</sup>; Timothy J. Wilt, MD, MPH<sup>2</sup>; Robert Rich, MD, FAAFP<sup>3</sup>; Linda Humphrey, MD, MPH<sup>4</sup>; Jennifer Frost, MD, FAAFP<sup>5</sup>; and Mary Ann Forciea, MD<sup>6</sup>

<sup>1</sup>American College of Physicians

<sup>2</sup>Minneapolis VA Medical Center

<sup>3</sup>Community Care of the Lower Cape Fear

<sup>4</sup>Oregon Health and Science University

<sup>5</sup>American Academy of Family Physicians

<sup>6</sup>Penn Health System

## References

1. Yoon SS, Carroll MD, Fryar CD. Hypertension Prevalence and Control Among Adults: United States, 2011-2014. *NCHS Data Brief*. 2015;(220):1-8.
2. Effects of treatment on morbidity in hypertension. Results in patients with diastolic blood pressures averaging 115 through 129 mm Hg. *JAMA*. 1967;202(11):1028-1034.
3. MRC Working Party. Medical Research Council trial of treatment of hypertension in older adults: principal results. *BMJ*. 1992;304(6824):405-412.
4. Effects of treatment on morbidity in hypertension. II. Results in patients with diastolic blood pressure averaging 90 through 114 mm Hg. *JAMA*. 1970;213(7):1143-1152.
5. The Australian therapeutic trial in mild hypertension. Report by the Management Committee. *Lancet*. 1980;1(8181):1261-1267.
6. Weiss J, Freeman M, Low A, et al. Benefits and harms of intensive blood pressure treatment in adults aged 60 years or older: a systematic review and meta-analysis. *Ann Intern Med*. [Epub ahead of print January 17, 2017] doi: 10.7326/M16-1754.
7. Qaseem A, Snow V, Owens DK, Shekelle P; Clinical Guidelines Committee of the American College of Physicians. The development of clinical practice guidelines and guidance statements of the American College of Physicians: summary of methods. *Ann Intern Med*. 2010;153(3):194-199.
8. American Academy of Family Physicians. Clinical practice guideline manual. 2015 <http://www.aafp.org/patient-care/clinical-recommendations/cpg-manual.html>. May 24, 2016.