

A REVIEW OF THE JNC 8 GUIDELINE FOR THE MANAGEMENT OF HIGH BLOOD PRESSURE IN ADULTS

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Hypertension is the most common condition seen in primary care and leads to myocardial infarction, stroke, renal failure, and death if not detected early and treated appropriately. Patients want to be assured that blood pressure (BP) treatment will reduce their disease burden, while clinicians want guidance on hypertension management using the best scientific evidence. This report takes a rigorous, evidence-based approach to recommend treatment thresholds, goals, and medications in the management of hypertension in adults. Evidence was drawn from randomized controlled trials, which represent the gold standard for determining efficacy and effectiveness. Evidence quality and recommendations were graded based on their effect on important outcomes.

The Eighth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 8) in adults was published in December 2013. Two key recommendations in the updated guidelines that differ from the JNC 7 guidelines are (1) less aggressive targeting of blood pressures (BPs) and treatment-initiation thresholds for elderly patients and for those younger than age 60 years with diabetes and kidney disease and (2) no longer recommending only thiazide-type diuretics as the initial therapy in most patients (angiotensin-converting enzyme [ACE] inhibitors, angiotensin receptor blockers [ARBs], calcium channel blockers [CCBs], or diuretics are recommended).

The JNC 8 recommendations include the following:

1. In patients aged 60 years or older, initiate therapy in those with systolic BP levels at 150 mm Hg or greater or whose diastolic BPs are at 90 mm Hg or greater; treat to below those thresholds.
2. In patients younger than 60 years as well as those older than 18 years with either chronic kidney disease (CKD) or diabetes, the BP treatment initiation and goals should be 140/90 mm Hg.
3. In nonblack hypertensive patients, begin treatment with either a thiazide-type diuretic, CCB, ACE inhibitor, or ARB.
4. In hypertensive black patients, initiate therapy with a thiazide-type diuretic or CCB.
5. Regardless of race or diabetes status, in patients 18 years or older with CKD, initial or add-on therapy should consist of an ACE inhibitor or ARB.
6. Do not use an ACE inhibitor in conjunction with an ARB in the same patient.
7. If a patient's goal BP is not achieved within 1 month of treatment, increase the dose of the initial agent or add an agent from another of the recommended drug classes; if 2-drug therapy is unsuccessful for reaching the target BP, add a third agent from the recommended drug classes.
8. In patients whose goal BP cannot be reached with 3 agents from the recommended drug classes, use agents from other drug classes and/or refer the patients to a hypertension specialist.

It is important to note that this evidence-based guideline has not redefined high BP, and the panel believes that the 140/90 mm Hg definition from JNC 7 remains reasonable. The relationship between naturally occurring BP and risk is linear down to very low BP, but the benefit of treating to these lower levels with antihypertensive drugs is not established. For all persons with hypertension, the potential benefits of a healthy diet, weight control, and regular exercise cannot be overemphasized. These lifestyle treatments have the potential to improve BP control and even reduce medication needs.