

## Top Ten Things to Know 2017 Hypertension Clinical Guidelines

### 1. Change in Classification of BP

Based on risk and clinical trial experience, this guideline recommends a new approach to classification of blood pressure (BP) in adults. Compared to the systolic BP (SBP) and diastolic BP (DBP) levels used to designate the presence of hypertension in recent previous guidelines (average SBP  $\geq 140$  mm Hg or average DBP  $\geq 90$  mm Hg), this guideline recommends use of an average SBP  $\geq 130$  mm Hg or an average DBP  $\geq 80$  mm Hg. The complete classification is outlined below:

BP Category	SBP		DBP
Normal	<120 mm Hg	and	<80 mm Hg
Elevated	120–129 mm Hg	and	<80 mm Hg
<b>Hypertension</b>			
Stage 1	130–139 mm Hg	or	80–89 mm Hg
Stage 2	$\geq 140$ mm Hg	or	$\geq 90$ mm Hg

#### Categories of BP in Adults\*

\*Individuals with SBP and DBP in 2 categories should be designated to the higher BP category.

BP indicates blood pressure (based on an average of  $\geq 2$  careful readings obtained on  $\geq 2$  occasions, as detailed in Section 4); DBP, diastolic blood pressure; and SBP systolic blood pressure.

### 2. Prevalence of Hypertension

Prevalence of hypertension is estimated to be about 14% higher using the proposed SBP and DBP cut-points for definition of hypertension compared to those recommended in the 2003 JNC 7 guideline (46% vs. 32%) but nonpharmacological management is recommended for the majority of adults who would be newly classified as having hypertension, with BP-lowering medication being recommended in addition to nonpharmacological therapy for only a small fraction of those newly diagnosed.

### 3. Accurate measurement of BP

Accurate measurement of BP is essential for categorization of BP, determining risk of atherosclerotic cardiovascular disease (ASCVD), and management of high BP. A variety of errors in BP measurement, which are common in clinical practice, can and should be avoided by following the measurement methods outlined in the guideline. In addition to office BP measurements, the guideline discusses out of office BP measurements (including ambulatory BP monitoring measurements and home BP monitoring measurements) and how they can be used as an adjunct to office readings to recognize “white coat” and “masked” hypertension as well as for improved management in patients with hypertension.

#### **4. Secondary Forms of Hypertension**

Secondary causes of hypertension are responsible for the high BP in approximately 10% of patients with hypertension. Many of these forms of hypertension can either be cured or require specific treatments. The guideline provides suggestions for clinical presentations that warrant screening for secondary forms of hypertension and guidance for conduct of specific screening tests.

#### **5. Nonpharmacological management of high BP**

Nonpharmacological interventions aimed at correction of dietary aberrations, physical inactivity, and/or excessive consumption of alcohol are fundamentally important for management of the underlying causes of high BP in most adults with an elevated BP. Nonpharmacological interventions can be used to prevent and to treat hypertension. The most important nonpharmacological interventions include weight loss, a heart healthy diet such as the DASH Diet, reduced dietary sodium intake, increased intake of potassium (preferably by dietary modification), increased physical activity and moderation or avoidance of alcohol intake.

#### **6. Drug management of hypertension**

Decisions to manage hypertension using BP-lowering medication, in addition to nonpharmacological interventions, should be based on level of BP together with the patient's underlying risk for ASCVD. Recommendations are provided for BP medication treatment thresholds in the context of underlying risk of ASCVD, BP targets during therapy, and follow-up after initiation of therapy.

#### **7. Choice of Antihypertensive Medication**

Four drug classes are recommended as options for initial choice of antihypertensive drug therapy (thiazide diuretics, calcium channel blockers, angiotensin converting enzyme inhibitors and angiotensin receptor blockers) in adults who do not have a compelling need for a specific BP lowering medication to manage another illness. In most adults with hypertension, pharmacotherapy requires more than one agent and there are specific combinations of antihypertensive medication that have been shown most likely to be effective.

#### **8. Management of Hypertension in Adults with Comorbidities and in Special Patient Groups**

Consideration should be given to modification of the management of hypertension in adults with one or more comorbidities such as heart failure, chronic kidney disease or renal transplantation, peripheral vascular disease, diabetes mellitus or metabolic syndrome, atrial fibrillation, valvular heart disease, or aortic disease and in specific patient groups such as those of different race/ethnicity, women (including those who are pregnant), older adults and children or adolescents.

#### **9. Other Considerations in Adults with Hypertension**

A variety of other considerations can impact management of adults with hypertension, including the presence of resistant hypertension or a hypertensive crisis or emergency.

#### **10. Improving Treatment and Control in Adults with Hypertension**

A majority of adults receiving antihypertensive drug therapy have an average SBP and/or DBP above the target level recommended in this guideline. Several strategies for improving control of hypertension that have been demonstrated to be effective are recommended in the guideline.