

New Definition of Hypertension Proposed

Disclosures

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Following announcement of the results of the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT),^[1] the largest hypertension trial ever conducted, at the end of 2002, the National Heart, Lung, and Blood Institute (NHLBI) followed with a revision of the US national hypertension guidelines. Published as the Seventh Report of the Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7),^[2] this update of the US guidelines was quickly followed by updates of nearly all other national guidelines.

Now, just 2 years after publication of JNC-7, the American Society of Hypertension (ASH) has realized a need to revise their definition of hypertension and recommendations for its recognition and treatment. To accomplish this, the Society established the Writing Group of the American Society of Hypertension (WG-ASH), chaired by Dr. Giles.^[3] The other WG-ASH members are Bradford Berk, MD, PhD; Henry R. Black, MD; Jay N. Cohn, MD; Joseph L. Izzo, Jr, MD; John B. Kostis, MD; and Michael A. Weber, MD.

The proposed definition, which at the time of the annual ASH meeting in San Francisco, California, had not yet been published, is based on the view of hypertension as a complex cardiovascular disorder rather than as just blood pressure values. It characterizes the disease as a progressive cardiovascular syndrome with many causes that result in both functional and structural changes to the heart and vascular system. And the authors note that the early stages of hypertension can begin before an individual develops sustained elevated blood pressure, and can progress to damage in the heart, kidneys, brain, vasculature, and other organs, often leading to premature morbidity and death.

The new definition incorporates the presence or absence of risk factors, early disease markers, and target-organ damage (Table 1), and more accurately represents the different physiologic abnormalities in the cardiovascular system and other organs caused by hypertension, according to the WG-ASH group. The goal of this risk-based approach is to identify individuals at any blood pressure level who have a reasonable likelihood of future cardiovascular events.

Table 1. WG-ASH Definition and Classification of Hypertension

Classification	Blood Pressure Elevations		Cardiovascular Disease*	Cardiovascular Risk Factors	Early Disease Markers	Target Organ Disease
Normal	Normal or rare	or	None	None or few	None	None
Hypertension:						
Stage 1	Occasional or intermittent	or	Early	Several	Usually present	None
Stage 2	Sustained	or	Progressive	Many	Overtly present	Early signs present
Stage 3	Marked and sustained	or	Advanced	Many	Overtly present with progression	Overtly present with or without cardiovascular disease

based on total cardiovascular risk. Like a number of ASH members, the ESH guideline authors believe that use of the term "hypertension" should really be discontinued (although ESH retains it in its guidelines, it says, to avoid confusion).

Future US Hypertension Guidelines

The WG-ASH definition of hypertension has yet to be adopted as an official ASH guideline. The Writing Group proposes expanding the definition and classification by incorporated the presence of absence of risk factors, early disease markers, and target organ damage in addition to blood pressure levels. The members predict that expanding the definition will lead to new approaches to hypertension research, especially the early stages of the disease, and perhaps to new ways to treat the disease.

Dr. Giles believes that there is little likelihood of an updated national US hypertension guideline -- a "JNC 8" -- in the near future. The new WG-ASH definition is currently under review by the NHLBI, which produced JNC 7, and Dr. Giles does not rule out the possibility that ASH could take on the responsibility for devising the next national guidelines for the prevention, diagnosis, and treatment of hypertension. Two WG-ASH members, Drs. Black and Izzo, were also members of the executive committee that produced JNC 7.

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