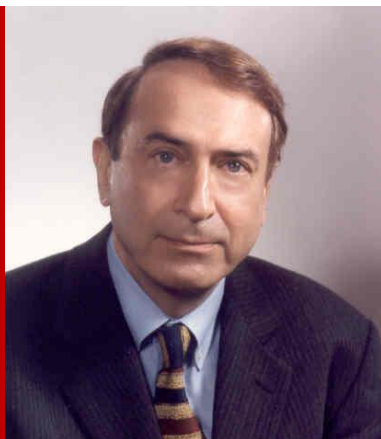


Michael A. Weber, MD

Professor of
Medicine, State
University of New
York, Downstate
College of Medicine

USA



A Personal View on How The Debate Over Hypertension Guidelines Exposes a Critical Lack of Evidence

Guidelines for the management of hypertension have generally focused on defining and diagnosing this condition as well as setting treatment goals and optimising the use of antihypertensive drugs. Establishing the blood pressure threshold at which hypertension is diagnosed, and to which it should be treated, may be the single most important issue.

Until quite recently there appeared to be a consensus in Europe and the United States: The diagnostic and treatment threshold was 140/90 mmHg for all adults except those with diabetes or chronic kidney disease, in whom 130/80 mmHg was recommended. Then, in 2009, the European Society of Hypertension published a “reappraisal” article acknowledging the absence of definitive data to support the 130/80 mmHg criterion for patients with diabetes or kidney disease and recommending that these patients be treated to 140/90 mmHg like everyone else. Evidence, so it seemed, had become the true foundation for hypertension guidelines.

But this action exposed a larger problem. What evidence justifies a systolic BP of 140 mmHg as the standard threshold for defining hypertension? This is a pivotal question in patients aged over 60 who are so commonly affected by hypertension and in whom most of the serious cardiovascular events occur.

When the ESH/ESC guidelines committee addressed this issue in 2013 they considered two classic hypertension trials, SHEP and Syst-Eur, that studied patients aged 60 or over. But neither trial was designed to compare the effects on cardiovascular outcomes of different BP targets; and, moreover, they were conducted in patients with isolated systolic hypertension, a condition rather different from the hypertension found in the general population. In the end, the Committee, noting that people with systolic BPs above 160 mmHg had clear benefits when treated to below 150 mmHg, recommended a target of 150 mmHg in “frail” older people and 140 mmHg in the “fit.”

The guideline in the United States (originally called JNC 8 before the JNC was disbanded by its sponsor, the National Institutes of Health) followed a similar pattern, though it extrapolated even more widely

from the SHEP and Syst-Eur trials and simply advocated that 150 mmHg be the threshold in people aged over 60 (though 140 mmHg was maintained for patients with diabetes or kidney disease). Rightly, these authors stressed the absence of definitive data to determine whether 140 or 150 mmHg should be the threshold in these patients, but it was not made entirely clear why 150 mmHg was ultimately recommended.

Indeed, the JNC Committee became strongly divided on this issue and an influential minority of its members published a separate report stating that 140 mmHg would have been a more responsible recommendation. They argued that achieving 140 mmHg is known to be safe, and until it's known that 150 mmHg does not increase cardiovascular risk - especially stroke - it would be more prudent to continue the 140 mmHg standard. Despite this dispute, it should be acknowledged that the JNC panel gave 5 years of dedicated service to evaluating the entirety of the hypertension literature in a search for usable evidence.

The joint guideline of the American Society of Hypertension and the International Society of Hypertension - of which I was an active part - was published at the beginning of 2014. It also noted that the systolic standard of 140 mmHg is not rigorously supported by prospective evidence, but nevertheless recommended it as an expert opinion. Based on the HYVET trial, an exception was made for people aged 80 or more where the evidence for a threshold of 150 mmHg appeared reasonable.

Despite the differences among guidelines, I continue to support the argument that until new research provides further guidance it would be most responsible to remain with the 140 mmHg systolic threshold, if tolerated, in adults aged below 80.

An invitation to attend Society Events, Athens

We invite our members to attend the following events during the forthcoming Hypertension Athens meeting.

ISH General Meeting

Sunday 15th June

12:45-14:15 hrs

Nikos Skalkotas Hall, Megaron Centre

ISH Awards Ceremony, Franz Volhard Lecture and Presidential Lecture

Sunday 15th June

17:00-18:30 hrs

Christos Lambrakis Hall, Megaron Centre