Systolic Blood Pressure Target Levels
Evidence for Benefits in Stroke

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Verdecchia et al1 in this addition of Hypertension provide a timely and important report of the benefit of blood pressure reduction with a predicted lower risk of stroke. These results from the analysis of Ongoing Telmisartan Alone and in combination with Ramipril Global End point Trial (ONTARGET)2 provides critically needed data from randomized clinical trials (RCTs) to address the evidence gaps in the determination of target blood pressure levels. Specifically, this contribution provides additional RCTs evidence for consideration of blood pressure reduction to lower stroke risks using existing study data.

The Institute of Medicine recommended that clinical treatment guidelines be evidence-based with specific recommendations derived from the results of high-quality trials and studies with an assessment of these bodies of evidence in a systematic manner.3–5 Most of the current hypertension treatment guidelines are evidence-based methods to develop Evidence Statements and recommendations for blood pressure treatment based on a systematic review of the literature of qualified RCTs.6 The nearly 5-year evidence review and recommendation process resulted in a set of guidelines mostly with unanimity and based on moderate and stronger evidence. The recommendations regarding the target systolic blood pressure had differing views based on available RCTs evidence and interpretations, specifically focused on a target systolic blood pressure of 150 mm Hg versus 140 mm Hg.9 The Systolic Blood Pressure Intervention Trial10 will hopefully resolve some of the discrepancy, but the results will not be available for several years. The current ONTARGET analyses1 and the reanalysis of the International Verapamil SR/Trandolapril Study11 provide a timely supplement to the body of evidence; in this particular case, supporting the benefit of the 140 mm Hg.

As the reduction of stroke risks has been associated greatest with blood pressure reduction,12,13 the stratified analysis from ONTARGET provides additional evidence and information for assessing target blood pressure levels and identifying the differential depending on the specific outcome assessed. These findings from RCTs are consistent with observational and epidemiological studies of higher risks with higher systolic blood pressure.12

The intent of the Institute of Medicine recommendations is to develop and implement guidelines based on the strongest evidence available. The process includes the identification of the evidence gaps with the implementation of RCTs and further analyses to address these needs. Verdecchia and colleagues have provided a contribution to this evidence need.

Disclosures

None.

References

