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An incomplete picture of harms and benefits reduces the clinical utility of study results

Dear Editor,

In their Lancet review¹, Ettehad *et al.* concluded that there is “strong support for lowering blood pressure to systolic blood pressures less than 130 mmHg.” While this review could guide blood pressure-lowering treatment, we believe two issues limit its clinical utility.

First, given that no data on adverse events was provided, the net benefit of lowering blood pressure to systolic blood pressures less than 130mmHg cannot be established. Despite disparate reporting by the included studies, the risks of adverse events must be discussed as aggressive treatment to below the current standard of 140 mmHg can cause harm. The SPRINT trial² reported significantly higher rates of adverse events in a treatment group whose systolic blood pressures were treated to below 120 mmHg compared to the control group treated to below 140 mmHg. Furthermore, providing no synthesis of adverse events data means such disparate reporting is perpetuated in the literature. At the least, quantifying the number and type of adverse events that trials report could inform recommendations for more uniform measurement and improved reporting by future investigators.

Second, the authors reinforce a shift away from treating hypertension and toward preventing CVD but they do not provide analyses by total cardiovascular risk. Given that the absolute reduction of CVD risk from blood pressure-lowering treatment is associated with baseline CVD risk³, analyses by baseline CVD risk are necessary to determine the clinical value of treatment for different patient risk groups.

Addressing these two points would help translate Ettehad *et al.* 's findings into clinical practice.

Works Cited

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