

New high blood pressure guidelines could increase detection of gestational hypertension

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Gestational hypertension—high blood pressure during pregnancy—can have persisting adverse effects on the health of mothers and their infants. In 2017, the American College of Cardiology (ACC) and the American Heart Association (AHA) released clinical guidelines for hypertension in non-pregnant adults, which lowered the blood pressure threshold to diagnose hypertension, compared to previously established ones. However, the new ACC/AHA guidelines have not been adapted or applied to pregnant women. Researchers at Brigham and Women's Hospital and colleagues conducted the first-ever study to evaluate the impact these guidelines could have on detecting gestational hypertension. The results of the retrospective cohort study were published today in the journal *Circulation Research*.

"Timely, accurate diagnosis of gestational hypertension is crucial for preventing associated conditions for [pregnant women](#) like preeclampsia and postpartum chronic hypertension," said Jie Hu, MD, Ph.D., a postdoctoral researcher in the Division of Women's Health in the Department of

Medicine at Brigham and Women's Hospital and the study's first author. "Infants born to women with gestational hypertension are more susceptible to preterm birth and adverse long-term health outcomes like young adulthood cardiovascular diseases."

Hu and the international collaborative team used systolic and diastolic blood pressure measurements obtained from the medical records of 16,345 women from a maternal and child health care hospital in Wuhan, China. Blood pressure measurements were recorded by obstetricians during prenatal care visits across various stages of pregnancy.

Using the 2017 ACC/AHA guidelines, the investigators identified 4,100 women (25.1 percent) with hypertension. In contrast, only 678 (4.2 percent) of the women were found to have hypertension using the previous guidelines, indicating a substantial increase in the prevalence of gestational hypertension compared to the previous definition.

The investigators acknowledge that the findings will need to be replicated in more ethnically, racially and socioeconomically diverse populations, as well as in other nations aside from China. Future studies are necessary to determine whether more frequent diagnoses of hypertension lead to improved neonatal outcomes for mothers and infants.

According to the researchers, current management strategies for gestational hypertension include continued observation and careful follow-up of blood pressure. Medication is only used in severe cases.

"Incorporating the 2017 ACC/AHA guidelines into prenatal care practice could improve detection of

[high blood pressure](#) during pregnancy and the efforts to reduce adverse maternal and neonatal outcomes in the perinatal period that are related to gestational hypertension," said Hu.

More information: Jie Hu et al, Impact of the 2017 ACC/AHA Guideline for High Blood Pressure on Evaluating Gestational Hypertension Associated Risks for Newborns and Mothers: A Retrospective Birth Cohort Study, *Circulation Research* (2019).

Provided by Brigham and Women's Hospital

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