Hypertensive Disorders and Pregnancy-Related Stroke: Frequency, Trends, Risk Factors, and Outcomes

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1. Identify the primary objectives of the study. Discuss the meaning of a cross-sectional study and the advantages and limitations of using a cross-sectional design to address each of the study objectives.

2. Describe the data source for the study and discuss its advantages and disadvantages.

3. The unit of analysis was hospitalizations and not individual patients. What are the potential pitfalls of using such a unit of analysis?

4. What is the standard of care at your institution regarding hospitalization compared with outpatient management of patients with mild preeclampsia? Discuss how the standard of care at participating centers could potentially influence the results of this study.

5. The authors present several demographic and clinical factors in Table 1 that were used for multivariable adjustments. Discuss the importance and implications of any other factors not presented in the table.

6. Describe the main findings of the study. Discuss whether or not you agree with the authors’ explanation for the increasing trends in pregnancy-related stroke and provide any alternative explanations.

7. The authors state that validation studies suggest that the codes for stroke and hypertensive disorders of pregnancy have high specificity and limited sensitivity. As a result, they suggest their results for the associations between risk factors and adverse outcomes should be unbiased. Explain what the authors mean by sensitivity and specificity in the context of this study. Discuss whether or not you agree with their suggestion about unbiased estimates.

8. In the discussion, the authors discuss thresholds endorsed by the American Heart Association (AHA) for the treatment of moderate hypertension in pregnancy. Discuss similarities and differences between the AHA and the American College of Obstetricians and Gynecologists’ recommendations (see Stroke 2014;45:1545-88 and Obstet Gynecol 2013;122:1122-31) for treatment of mild to moderate hypertension in pregnancy and describe the usual practice at your institution or center.

9. Will the study findings influence how you manage women with hypertensive disorders of pregnancy? Discuss how your management will change or why the findings will not influence management.