“Mode of Delivery in Nulliparous Women and Neonatal Intracranial Injury”

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1. The authors compared neonatal neurologic complication rates after cesareans, forceps-assisted vaginal deliveries, and vacuum-assisted vaginal deliveries. Are these three groups comparable? Would you expect similar neurologic outcomes after a cesarean that was performed electively compared with one after labor? How do the authors evaluate those cesareans after an operative vaginal delivery attempt?

2. The authors used International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9) codes to identify neonatal morbidity. Review the ICD-9 codes for subdural or cerebral hemorrhage, scalp injury, skeletal fracture, facial nerve palsy, and injury to the brachial plexus. How accurate is the use of ICD-9 codes for these outcomes? Would you expect overascertainment or underascertainment?

3. Who puts the ICD-9 codes in for your patients? Talk with them on how they decide when to use a code, and what criteria they are looking for in the chart.

4. Why did the authors limit the study to nulliparous women? Can the findings be generalized to multiparous patients?

5. Of the patients in the study, it appears that 67%–77% of patients had a prepregnancy weight of 100–149 pounds. How similar is this to your pregnant population?

6. In the composite of neurologic outcome, it appears that seizure was more frequent overall than intraventricular hemorrhage and subdural hemorrhage (Table 3). How does having one predominate finding affect a composite outcome?

7. Based on the adjusted odds ratios in Table 4, which delivery method is associated with the worst neurologic complications? Is this what you would have expected? Why or why not?

8. Figure 1 demonstrates that there has been a decline overall in forceps and an increase in vacuum deliveries. What effect will this have on neonatal outcomes, given the authors’ findings? Is there a way to test if these findings are correct given this historical data?

9. Review the variables that were used to adjust the odds ratio (footnote Table 4). Why were these variables included? What goes into the consideration for a variable to be included or excluded in the adjustment?