“Pregnancy Outcome and Mode of Delivery After a Previous Operative Vaginal Delivery”  
(Melamed N, Ben-Haroush A, Chen R, Pardo J, Hod M, Yogev Y)  
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1. Describe the study design. Why was it selected? Are there limitations of this type of study design? If you were to plan the perfect study to address this question, what design would you choose? Would a prospective data collection provide different data than this design? How might that affect the results?

2. The authors chose nulliparous women to study. Why was this group selected? Would the results be different if multiparous women were included? Why or why not? Could a mixed group (nulliparas and multiparas) be used to address this question? Why or why not?

3. The study period covered 1993 through 2006 (13 years). Do you think the long duration of the study period could affect the outcomes? Why or why not? Look up the trends of operative vaginal deliveries and cesarean deliveries over this time period from national data. How could these findings be accounted for in the analysis?

4. Review the indications for operative vaginal delivery from ACOG Practice Bulletin No. 17, Operative Vaginal Delivery (June 2000). The authors used prolonged second stage and nonreassuring fetal heart rate as indications for operative vaginal delivery. Why do you think they chose these indications? How do you think the authors identified the indications in the cases and controls (for both the first and second deliveries)? How easy is it to find the indication in medical charts? Often more than one indication is written; how would you deal with more than one indication if you were designing the study? How would this potentially impact the results?

5. Approximately one third of the cases and controls had a subsequent delivery at the hospital, allowing for the evaluation of the delivery route in the second pregnancy. Could this be a source of bias for the results? If yes, how could it be accounted for?

6. Review the statistical term “multivariable logistic regression model.” Why would you use this modeling method? How does it help to answer the clinical research question? How are confounders selected for adjustment?

7. Will the findings of this study change how you manage and/or counsel nulliparous patients who have an operative vaginal delivery? Describe how you will counsel and manage these patients in their initial prenatal visit of a subsequent pregnancy.