Reviewer's report

Title: Human Papillomavirus (HPV) infection in pregnant women and mother-to-child transmission of genital HPV genotypes: a prospective study in Spain

Version: 2 Date: 29 September 2008

Reviewer: Philip Castle

Reviewer's report:

Castellsagué et al. report the relationship of cervical HPV in new mothers to the oral/genital HPV in their infants. The authors need to do more with the rationale for the study. Clearly, there is little clinical importance but the authors provide no relevance as it relates to natural history. And, while an interesting study, I felt that the presentation of the data is more complicated than it needs to be. One limitation of the study is that the mothers were only sampled from the cervix and only at time 0 and 6 weeks post-partum. This limits the ability of the study to examine non-genital types in horizontal transmission and the concordance of HPV types in the longer follow-up.

Major Compulsory Revisions:

1. Table 4 is very difficult to understand and it is the key data table in the paper. And, there is a high percentage of missing test results among the HPV positives to assess type concordance. For each comparison, I would rather see more details about the paired results: infant positive/mother positive, complete concordance; infant positive/mother positive, partial concordance; infant positive/mother positive, no concordance; infant positive/mother negative; infant positive/ mother missing; and so forth.

2. Table 1 should present the two populations, the HPV+ recruited from the prevalence survey and “random sample” of the population.

3. Table 2 can be simplified by eliminating the cytology. It is not really relevant here. I would like to know if the overall distribution of HPV types (among HPV+) were (statistically) the same between mothers and infants.

4. I really do not see the rationale for Table 3, the multivariable model for HPV in the mothers. The outcome of interest is HPV in the infants. It is more relevant to do a multivariate model for the infants based on the mothers’ characteristics and the details about birthing.

5. I think that it would useful to present a cumulative incidence of infection among infants by mothers’ baseline status and overall status i.e., any HPV or not.

6. For key prevalences, the authors should present binomial 95% confidence intervals.

7. The authors should also present the concordance of oral and genital HPV in the infants. Did the distribution of HPV types detected from the infants change in
time, which would speak to the horizontal transmission?

8. Of those who tested positive but untyped (HPVX), how often were women repeatedly HPVX positive? This would say something about whether these are true positive results for types amplified but not detected vs. false positives.

Minor Essential Revisions:

9. Page 2. HPV-DNA detection during pregnancy

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests