Reviewer's report

Title: Immigrants from conflict-zone countries: a comparison study of obstetric outcomes in a low-risk maternity hospital in Norway.

Version: 2
Date: 9 June 2015

Reviewer: Georgia Verropoulou

Reviewer's report:

Review of Methodology/Statistics.

Overall the methods used and the statistical analyses seem appropriate. The data also seem sound, in spite of referring to a selected low-risk group of women and of the small sample sizes of immigrant women. There are, however, a few points that need clarification before the paper can be published.

Major essential revisions:

1. Methods, page 5.

Regarding the selectivity of the sample, I think it would be useful to include in that section some more details about the women that use this particular hospital. Apart from having a low risk pregnancy what are the characteristics of these women? Are they local residents? Can they be considered ‘a random sample of low-risk pregnancies’? If they come from specific areas, for instance, are these more or less wealthy than the average of the country? In general, how do women in Norway choose a hospital to give birth? Do affluent women give birth in specific hospitals or the choice of a hospital depends only upon the area of residence?

I know of countries that immigrant and poor women use public health hospitals whereas middle class women use private hospitals. There, for instance, choosing a specific hospital would determine also the socioeconomic status of the women giving birth and also the migrant to native ratio. Possible effects of the selectivity of the sample should be considered and commented on in the ‘limitations of the study’ section.

2. Statistical analysis page 7.

a. In choosing between the t-test and the Mann-Whitney U test the authors claim that they checked whether linearity was present or not. Could the authors be more analytic? What is meant by ‘linearity’ here? Do they mean ‘normality’? In fact, the underlying assumption when using the Mann-Whitney U test, for instance, is that the variable, for each of the two groups that are compared, is not normally distributed. It is not clear in the text whether the authors have checked that.

b. Logistic models

I think it would facilitate the reader if the authors were a bit more specific
regarding the dependent variables of the models (i.e. state explicitly which variables are dependent) and which are the confounding factors the authors are controlling for; this is not clear in the text.

3. page 14: ‘A methodological strength of our study is that it was performed at a low risk maternity hospital… many confounding factors are already eliminated’ Here the authors should specify which confounding factors they mean and should elaborate in which way selectivity is a plus for their analysis.

4. Table 1: It would be useful here to denote which results were based on a chi-square test, Fisher’s exact test, t-test etc.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests