Reviewers report

Title: Hospitalisations for Interpersonal Violence and Adverse Maternal and Foetal Outcomes: A Whole Population Study

Version: 2 Date: 30 June 2011

Reviewer: Marian Knight

Reviewers report:

This manuscript presents an analysis of linked hospital admissions data from Western Australia examining the relationship between hospitalisations for interpersonal violence and pregnancy outcomes. As written, the description of the methods is such that I find the manuscript impossible to assess. If, as it appears, this presents only univariable analyses, I am not convinced that this represents a useful addition to the scientific literature.

Major compulsory revisions
1. The authors include no detailed description of their statistical methods (methods, statistical analysis section). I cannot tell whether the authors have conducted multivariable or univariable logistic regression, hence whether the risks they quote are independent. There are no details of the methods used to develop the logistic regression models. The authors include p values in all their tables, but have not included any details of the statistical tests they employed to generate these p values.

2. The selection of the comparison cohort needs to be described more fully (methods, paragraph 3) to enable the reader to assess its representativeness. As it is currently described it is impossible to assess whether the comparison cohort included any woman admitted at any point in pregnancy, including delivery episodes, and hence is basically representative of the delivery population, or whether the population represents women admitted with another pathology during pregnancy, and hence not a representative cohort. It is also not clear whether the cohort was selected from amongst women, or amongst admissions – if the latter, then again it is unlikely to be a representative cohort. On the basis of this uncertainty, I have major reservations about the utility of the comparison presented in table 2 and paragraphs 3-4 of the results.

3. Can the authors justify the inclusion of threatened abortion in their composite outcome measure? It is unusual to include in an overall measure of poor pregnancy outcome, as the outcome for both mother and infant may, in fact, be good. If the authors retain this within their definition, can they provide evidence that the associations they observe are not solely due to its inclusion?

4. There are large number of factors which might possibly confound the observed association which the authors have only very briefly alluded to in the final sentence of the discussion. This should be discussed in much greater depth.
Minor essential revisions

1. The authors suggest in the final sentence of their abstract conclusion that indigenous women are at greater risk of poor pregnancy outcomes than non-indigenous women following an episode of violence. This suggests an interaction between indigenous status and violence in a multivariable model. Can the authors clarify that this was indeed the case? If not, can they rephrase the conclusion appropriately.

2. Background paragraph 3 first sentence is confusing to read; can the authors rephrase?

3. Discussion first paragraph. The authors imply that women hospitalised violence are at increased risk of all the separate elements of their poor pregnancy outcome composite measure. This is very unlikely to be the case and the authors should rephrase to make it clear that this is not what they are implying.

4. Tables 3 and 4. The reference group for maternal age is stated to be $\leq 27$ years, and yet this is compared to age groups 21-25 and 26-30. Is the reference group correct?

**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