Reviewer's report

Title: Non-occupational exposure to paint fumes during pregnancy and risk of congenital anomalies: a cohort study

Version: 1 Date: 9 April 2012

Reviewer: Ann Aschengrau

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While the number of exposed cases is quite small, this manuscript is an important addition to the literature because there is little information on the risk of birth defects following non-occupational exposure to solvents. The prospective nature of the data collection is also an important strength of the study.

Major compulsory revisions:
1. Add an appendix that gives information on the specific defects that were observed in the study population. This information should be organized by exposure status.
2. Provide further discussion of other sources of solvent exposure that appear to be missing, such as hobbies, drinking water contaminants.
3. Give more information on the diagnoses captured by the ICD codes that were excluded.
4. Please clarify that the excluded stillbirths did not have any birth defects.
5. The discussion should also mention studies of environmental solvent exposure.
6. The discussion should focus more on the small number of exposed cases and resulting statistical instability of the findings.

Minor Essential Revision
1. The authors should consider omitting the reference to the multiple testing "problem." The paper by Rothman (Epidemiology 1990; 1:43-46) will clarify the rationale behind this suggestion.

Level of interest: An article of importance in its field

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.