Reviewer's report

Title: Does advanced maternal age confer a survival advantage to infants born at early gestation?

Version: 1 Date: 4 February 2013

Reviewer: Mary Carolan

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My impression is that this is a worthy study carried out in an area where the evidence is still sketchy. My largest concerns are (1) the age of the data set 2003-2005 and (2) the discussion, which is focussed on fetuses at risk, without a clear definition of what is a fetus at risk (parameters/ risk factors)? The premise appears to be to isolate fetuses at risk from all fetuses and to consider the impact of advanced maternal age on this group. Additionally, this is a complex paper and the information therein is not readily accessible. For example, the sentence- lines 99-102, page 5 is still not clear to me after 3 readings.

Major Compulsory Revisions

1. Some discussion of the age of the dataset, why that particular period was chosen rather than a more recent dataset? Are there likely to be differences in more contemporary data?

2. Inclusion of a clear definition of a fetus at risk?

3. Clarification of dense sections of the text, such as- lines 99-102, page 5.

4. Results: It is not clear what percentage of older vs younger women fall into the ‘fetus at risk’ category. This information would help make sense of the findings.

5. The discussion should include some explanation of why the traditional model supports better outcomes at earlier gestations, among older mothers generally. Could this be because they are generally healthy, better educated and their risks reflect these variables? Although advanced maternal age may not confer any real benefits in terms of obstetric outcomes, does it contribute to additional risk among healthy women?

6. Conclusion: my impression is that the conclusion overstates the findings, and the first statement needs to be qualified as ‘among fetuses at risk’. The 2nd sentence, referring to a lesser risk of neonatal death at lower gestation among older women, clearly is of some significance and cannot be dismissed as erroneous. I think this finding points to the need for additional study in this area.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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