Reviewer’s report

Title: Preconception Care for Diabetic Women for Improving Maternal and Fetal Outcomes: a Systematic Review and Meta-analysis

Version: 2 Date: 15 August 2010

Reviewer: Wee-Shian Chan

Reviewer’s report:

Reviewer’s Comments
Preconception Care for Diabetic Women for Improving Maternal and Fetal Outcomes: a Systematic Review and Meta-analysis
Hayfaa Wahabi, Rasmeia Alzeidan, Ghada Bawazeer, Samia Esmaeil, Lubna Alansari

1. Is the question posed by the authors well defined?
Yes, the question is well-defined

2. Are the methods appropriate and well described?
Yes

3. Are the data sound?
Yes, data gathered is sound

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
see below

6. Are limitations of the work clearly stated?
The major limitation of the meta-analysis is the fact that most of the studies used are observation studies and confounding factors cannot be adequately addressed such as maternal weight, weight gain, presence of hypertension, smoking. Because of the nature of the studies, one cannot be really sure that "blinding" occurred in both control and intervention groups after recuitment. From these studies, the effect of PCC can only be measured in early maternal HB A1C, congenital malformations, and early spontaneous loss. Whether PCC have a direct effect on late pregnancy events from these types of studies, without knowing whether co-interventions were present, e.g. glycemia control after pregnancy is achieved, is unknown. The fact that late outcomes are not statistically different could also be a function of inherent differences between patients with Type I and II Diabetes.
The authors should also try to explain why there are no differences in "late" outcomes, while there is a difference in "preterm" deliveries.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes.

8. Do the title and abstract accurately convey what has been found?
   yes

9. Is the writing acceptable?
   yes

Reviewer's report
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- Major Compulsory Revisions
The methodology is clearly laid out, and the authors acknowledged the limitations of the observational studies. The conclusion surrounding preterm labour should be tempered unless the authors have a clear explanation for why this finding is plausible in the absence of significant "late outcomes".

PCC from these studies is clearly effective for HbA1C, and congenital losses, and should make a difference in spontaneous losses.

The authors should define what PCC should be; that it should include all of glycemic care, weight counseling, risk factor reduction, prenatal vitamins, etc; and should ideally be conducted over 3-6 months. These interventions were likely not consistently performed in each of the studies.

If less than ideal PCC was actually done from the studies, it would be hard to conclude whether PCC was actually effective or not in improving pregnancy outcomes.

Thank you,
Wee-Shian Chan

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

Quality of written English: Acceptable
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I have no competing interests listed above