Reviewer's report

Title: Glycosylated haemoglobin and adverse pregnancy outcomes in type 1 and type 2 diabetes mellitus: Systematic review of observational studies

Version: 1 Date: 10 April 2006

Reviewer: Gillian Penney

Reviewer's report:

General
This paper describes a systematic review of 13 observational studies investigating the relationship between HbA1c in pregnancy and adverse pregnancy outcomes in women with type 1 or type 2 diabetes. The literature search appears to have been rigorously conducted. I am unfamiliar with the statistical techniques for meta-analysis of observational studies; I could not say whether the 'fixed effects' and 'random effects' models were correctly applied. Nor am I familiar with the Egger test and funnel plots for assessing publication bias. I feel that expert statistical review is required for this paper, as clearly it warrants publication only if the statistical techniques are deemed appropriate.

Assuming that the statistical methods are appropriate (and my knowledge of the track record of these investigators suggests that they will be), I consider this paper to be rigorously conducted, clearly written, and to make a contribution to the body of knowledge on the topic of diabetic pregnancy.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
None

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. In the 2nd paragraph of the 'Discussion', the authors state, 'Our analysis shows that poor glycaemic control results in a greater....'. This sentence suggests a cause-and-effect relationship which is unproven. The phrase 'results in' should be replaced by 'is associated with'.

2. Table 4: I think that expansion of the headings in this table is required to help the reader understand the content. I don't know what 'InRR' means; and should 'Relative Risk Reduction' read 'RR per 1% point decrease' for consistency with the previous column?

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Discretionary Revisions (which the author can choose to ignore)
None

What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable
Statistical review: Yes

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