

Nov 16<sup>th</sup> 2014

Dear Dr Fang-Fang Ji,

Please find enclosed the edited manuscript in Word format (file name: 13585-review.doc).

Title: Type 2 diabetes after gestational diabetes- the influence of changing diagnostic criteria

Author: Dr Eoin Noctor, MB BCh, Professor Fidelma P Dunne, MD PhD

Name of Journal: World Journal of Diabetes

**ESPS Manuscript NO: 13585**

The manuscript has been improved according to the excellent suggestions of reviewers, who we thank very much for their insightful comments (all changes highlighted).

1 Format has been updated

2 Revisions have been made according to the suggestions of the reviewer

#### **Reviewer 1**

This review is about the evolution of diagnostic criteria of gestational diabetes. The manuscript is well written. A few suggests are listed below. 1. The authors reviewed several diagnostic criteria. However, no validity information related to each criteria such as sensitivity and specificity has been discussed. It may be interesting to include this information. 2. Again, it is unclear that the implication of changing criteria on the proportion of women with previous GDM progressing to diabetes is mainly due to the change of sensitivity and specificity of the diagnostic criteria of GDM. Please clarify it in the discussion.

**There are unfortunately no comparisons to my knowledge of sensitivities and specificities of different GDM criteria in predicting abnormal glucose tolerance, given the difficult nature of following large cohorts of women with normal glucose and GDM long-term. There is a study (Retnakaran, R., Qi, Y., Sermer, M., Connelly, P. W., Zinman, B., & Hanley, A. J. (2009). Comparison of National Diabetes Data Group and American Diabetes Association diagnostic criteria for gestational diabetes in their identification of postpartum risk of glucose intolerance. Diabetes Res Clin Pract, 85(1), 40-46) comparing criteria, but the population is highly selected, consisting only of women who attended for 3 month post-partum testing, including those with normal glucose tolerance in pregnancy. Given that these results are probably not generalisable, I have not included them in this section.**

**We now discuss briefly the relative characteristics of the diagnostic criteria in perinatal outcomes, however, we feel a detailed review of this is outside the scope of this review.**

**We have included figures on sensitivity and specificity of HbA1c and FPG on follow-up testing.**

3. The section of risk factors for future progression seems not related to the main purposes of the review.

**In the absence of a definite risk threshold value for progression to diabetes post-GDM, or a large of body of evidence comparing different sets of criteria, discussion of the role of measures of glycaemia at diagnosis of GDM in determining future risk would seem appropriate. The other risk factors cited may help to put this in context, and establish their**

**relative contributions to future risk. However, we have expanded the section on 'criteria used' in prevalence post-GDM, including more figures on this.**

## **Reviewer 2**

This is an interesting manuscript, although at times it reads more as an opinion piece than as a review (particularly as there is no published data yet as to the long-term follow-up of women diagnosed as having GDM during pregnancy using the IADPSG criteria). It is therefore rather speculative in parts. The major limitation of the manuscript is that there is frequently a lack of critical evaluation of the literature, e.g. in the section about "Risk factors for future progression" only the 'positive' studies (i.e. those showing a relationship) for a particular factor are cited rather than both the positive and negative studies with an accompanying commentary that tries to evaluate why the results differ and what they may mean.

**Negative studies have been added, and commentary regarding study appraisal has been added, for all risk factors.**

I also think that the section about Ethnicity also needs to be strengthened and would suggest that the authors look at papers such as those by Jenum et al. (Eur J Endocrinol 166:317-24) and Hedderston et al. (Diabetes Care 35:1492-8). These show that the rise in prevalence of GDM in women using the IADPSG criteria differs by ethnicity and that the maternal BMIs associated with different degrees of glucose intolerance in pregnancy also varies by ethnicity.

**The section on ethnicity has been expanded including a more detailed review of the literature, and accompanying commentary.**

Specific Points 1. Page 7. Please define "HAPO" at its first use (at present it is defined further down the same paragraph).

**Corrected**

2. Page 8. Please add the word "concentration" after "c-peptide."

**Corrected**

3. Page 11. Please change "polycystic ovarian syndrome" to "polycystic ovary syndrome."

**Corrected**

" 4. Page 16.

Three lines from the bottom of the page. Please add the word "more" before the word "likely."

**Corrected**

5. Page 21. Three lines from the bottom of the page. Please add the word "having" before the word "GDM."

**Corrected**

6. Table 1. Please add a decimal place to the one hour glucose NDDG value.

**Corrected**

**Reviewer 3**

Well written review, however critical appraisal of the available literature is needed by considering the validity of the different studies to reach conclusion about which evidence is more valid and reliable.

**Negative studies have been added for comparison throughout and commentary regarding literature appraisal expanded. This is seen in the following sections - Introduction, risk factors, prevalence of GDM, overt diabetes, and follow-up.**

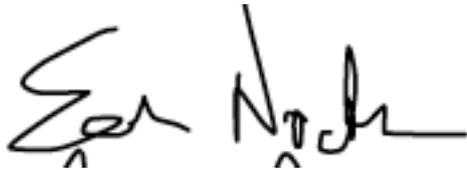
Authors should pay attention to scientific terms such as polycystic ovary syndrome

**Corrected**

3. References and typesetting were corrected

Thank you again for considering our paper for publication in World Journal of Diabetes

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Eoin Noctor'. The signature is fluid and cursive, with the first name 'Eoin' and the last name 'Noctor' clearly distinguishable.

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