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Dear Lian-Sheng Ma,

We would like to thank you for your preliminary decision on our manuscript entitled '*Estimated impact of introduction of new diagnostic criteria for gestational diabetes mellitus*' (manuscript number 63783). We would like to thank the reviewer for his/her time to review our manuscript and provide us with valuable comments. Please find below our response to the reviewer comments and the actions that were taken for revision of the manuscript.

Response to reviewer comments:

Specific Comments to Authors: The study entitled "Estimated impact of introduction of new diagnostic criteria for gestational diabetes mellitus", which conducted by Leon de Wit, aimed to estimate the impact of the WHO 2013 criteria, compared with the WHO 1999 criteria, on the incidence of gestational diabetes mellitus as well as to determine the diagnostic accuracy for detecting adverse pregnancy outcomes. In this study, a single-centre Dutch cohort of 3,338 women undergoing a 75-g OGTT were analyzed retrospectively based on different criteria. With the new diagnostic criteria, the GDM results were not same. More women were diagnosed as GDM based on the WHO 2013 criteria. And newly diagnosed women are at increased risk for pregnancy adverse outcomes. This retrospective cohort study provided the comparison for the diagnosis of GDM based on different version of diagnostic criteria, 1999 and 2013.

1. In fact, the similar comparison has been conducted in different cohorts of different countries. Most of the results were similar with present study. So, the novelty of present study was relative low.

We acknowledge that similar comparisons have been conducted in prior work. From these studies we have learned that the effects of implementation of the new WHO 2013 criteria vary greatly in different populations. Evaluation of these effects in different populations with differences in patient characteristics is therefore needed. We feel that our cohort as such complements previous work, given that the Dutch population is characterized by a relatively healthy pregnant population with, amongst others, a relative low rate of obesity. Even in this such a population, the effects of the new criteria are profound. We have used our data to emphasize on important questions that remain regarding implementation of the new criteria for GDM, as elaborately discussed in the discussion section of our manuscript. We believe that our analyses and separate reporting of the groups of women with discordant diagnoses between criteria offer novel insights in light of this ongoing and relevant discussion.

2. The sample numbers were relatively small for such type study. More samples might made the conclusion more solid.

The sample of 3.338 women that is presented in the manuscript comprises a single center dataset. In the Netherlands a risk-based screening policy is used, meaning that not all pregnant women are screened for GDM, unless there are one or more predefined risk factors. Therefore the number of women tested for GDM is lower than the total amount of women under care in our Obstetrics department. We believe that our single center approach is a strength, as we already see differences compared to other Dutch regions, in which patients have (slightly) different baseline characteristics.

We agree that a larger dataset could strengthen our results on more rare outcomes, such as shoulder dystocia. However, our main outcomes are in line with previously published studies. We therefore feel that the current sample size is adequate to support our conclusions, and that they strengthen the notion that the effects of implementation of the new criteria vary across different populations studied.

3. *Figure 2, from this Venn diagram, we found that the first group (No GDM) included all the other groups. However, the first group was only one part of the enrolled participants.*

Our goal with the Venn diagram was to represent all the women tested for GDM (n = 3.338), and visualize the shift in diagnoses, especially the large shift from no GDM to GDM by WHO 2013 only in relation to the size of the other groups. We agree that the Venn diagram could be interpreted as a shift in diagnoses in the No GDM group only. To avoid misinterpretation we have decided to remove the Venn diagram from the manuscript.

4. *The recent references in this field should be cited in your present study, including several meta-analyses.*

As suggested by the reviewer, we have added more recent references, which include several systematic reviews and meta-analyses, comparing the new WHO 2013 criteria to older criteria for GDM.

Wendland EM, Torloni MR, Falavigna M, Trujillo J, Dode MA, Campos MA, Duncan BB, Schmidt MI. Gestational diabetes and pregnancy outcomes--a systematic review of the World Health Organization (WHO) and the International Association of Diabetes in Pregnancy Study Groups (IADPSG) diagnostic criteria. *BMC Pregnancy Childbirth*. 2012;12:23.

Saeedi M, Cao Y, Fadl H, Gustafson H, Simmons D. Increasing prevalence of gestational diabetes mellitus when implementing the IADPSG criteria: A systematic review and meta-analysis. *Diabetes Res Clin Pract*. 2021;172:108642.

Ramezani Tehrani F, Naz MSG, Yarandi RB, Behboudi-Gandevani S. The Impact of Diagnostic Criteria for Gestational Diabetes Mellitus on Adverse Maternal Outcomes: A Systematic Review and Meta-Analysis. *J Clin Med*. 2021;10(4).

Muche AA, Olayemi OO, Gete YK. Prevalence and determinants of gestational diabetes mellitus in Africa based on the updated international diagnostic criteria: a systematic review and meta-analysis. *Arch Public Health*. 2019;77:36.

Kim MH, Kwak SH, Kim SH, Hong JS, Chung HR, Choi SH, Kim MY, Jang HC. Pregnancy Outcomes of Women Additionally Diagnosed as Gestational Diabetes by the International Association of the Diabetes and Pregnancy Study Groups Criteria. *Diabetes Metab J*. 2019;43(6):766-75.

Yew TW, Khoo CM, Thai AC, Kale AS, Yong EL, Tai ES. The Prevalence of Gestational Diabetes Mellitus Among Asian Females is Lower Using the New 2013 World Health Organization Diagnostic Criteria. *Endocr Pract*. 2014;20(10):1064-9.

Please find below our responses to the issues raised by the Science editor:

1) *The "Author Contributions" section is missing. Please provide the author contributions;*

In the original manuscript the author contribution section was present, however named "Acknowledgments". We have changed this to "Author contributions".

2) *The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor;*

We have included an original image file, in powerpoint format.

3) *The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text.*

We have proved the "Article Highlights" at the end of the main text.

In addition, we have performed a grammar check throughout the manuscript. We have included both the manuscript with track-changes, as well as a clean version.

Should there be any questions, please feel free to contact me directly.

On behalf of all authors,

Sincerely,

A handwritten signature in blue ink, appearing to be 'B.B. van Rijn', written in a cursive style.

Bas B. van Rijn, M.D., Ph.D.

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