Reviewer's report

Title: No consensus on gestational diabetes mellitus screening regimes in Sweden. Pregnancy outcomes in relation to different screening regimes 2011 to 2012: a cross-sectional study

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Reviewer: Mukesh Mansha Agarwal

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No consensus on gestational diabetes mellitus screening regimes in Sweden. Pregnancy outcomes in relation to different screening regimes 2011 to 2012: a cross-sectional study;

Maria Lindqvist, Margareta Persson, et al

Lindqvist et al., review the various guidelines used in Sweden for screening of gestational diabetes (GDM) and compare the differences in pregnancy outcome among the various screening/diagnostic methods.

Major comments and compulsory revisions:

1. I read this manuscript as if I was reading it for the first time in order to look at the study more analytically. The main problems that remain are a) the logical flow of ideas and b) how to consolidate the aims, findings in a coherent manner and align them with the literature in a rational manner. Often, the authors wander off too much, and the poor illogical syntax distracts. By way of example, I have worked on some of these deficiencies in the abstract (major comment 2, below). I have pointed to some of these distracting problems in the minor comments.

2. The entire abstract is poorly written and needs to be redone. Restrict it to less than 200 -225 words, and it will read much better. Some suggestions:

   Background: There is no international consensus about the way to screen and diagnose gestational diabetes(GDM). This study investigated the various methods used for gestational diabetes screening in Sweden and how it affect prevalence of GDM, number of oral glucose tolerance tests needed, and pregnancy outcome. (As stated, the background is extraordinarily confusing and too long. What does outcomes of OGTT mean? And background and risk factors for selection of OGTT and development of GDM?). Results: Four screening regimens were followed: one using universal screening with 2-hour cut-off of 10.0 mmol/l and three using selective screening with 2-hour cut-offs of 8.9,10.0,12.2 mmol/l, respectively (Condense rest of the results) Conclusions: There is no consensus for GDM screening in Sweden. The regimens followed were disparate and convenience-oriented. Aligning screening of GDM to one uniform
international guideline, potentially the IADPSG (spell out), would the ideal approach.

3. As stated in my earlier review, the authors misinterpret the GDM literature, often their impressions are wrong or out of date. For instance, they seem to think that IADPSG just needs the 2-hr value (see page 17, discussion, para 2). It needs the complete OGTT with plasma (not capillary) glucose on all (i.e., universal screening) women. On page 5, Para 2, last sentence is completely wrong: ‘The proposed criteria for GDM when using 75-g OGTT …(18).’ How can you have a range for cut-off values? Such confusion persists throughout the manuscript.

4. The authors should say that using 2-hr capillary glucose does not follow any international guideline, is ad-hoc, and best to use one popular (IADPSG) guideline. No guideline uses 2-hr value only and in Sweden they do not even measure f and 1-hr value. How were these screening ideas developed?

5. The authors must get rid of all the unnecessary flab, which only confuses. Then, the paper would come together. Obviously, if one keeps lowering the 2-hr threshold, the number of OGTTs will keep increasing—as the authors found. Furthermore, if one does not measure the F and 1-hr glucose value, the prevalence estimate could be wrong. Hypothetically, just for arguments sake, if the Swedish population has a high FPG (like many Asians), but low 2-hr values—it could argue for higher prevalence. Many good papers from Sweden are available on GDM (Ignell C et al. Trends in the prevalence of gestational diabetes mellitus in southern Sweden, 2003-2012. AOGS. 2014. Jan 23).

Minor comments and essential revisions:

1. Page 4, background; para 1: Please use the current definition of gestational diabetes: diabetes diagnosed during pregnancy that is not clearly overt diabetes. Instead of switching to the new definition, the authors used the old definition of GDM and changed the reference. They misunderstood my initial comment: Please change the definition to the new one and keep the old reference.

2. Page 4, background; para 1: Use: ‘GDM, one of the most common metabolic disorders complicating pregnancy, is defined…’. instead of ‘complications during pregnancy.’

3. Page 4, background; para 1: Rephrase- The results of HAPO study show that higher maternal glucose levels are associated with increased macrosomia, caesarean sections and neonatal hypoglycemia.

4. Page 4, background; para 1: Delete “in relation to normoglycemic pregnancies.” The correct syntax would be “compared to normoglycemic pregnancies, …” However, it is best if the entire phrase is omitted.

5. Page 4, background; para 1: ‘Offspring of women… metabolic syndrome. Use references 8, 9 just once in the end and NOT 3 times in the sentence.

6. Page 4, background; para 1: Omit last sentence, it is out of logical sequence and omit the reference 10.
7. Page 4, background; para 2: Do not repeat the full form of HAPO, as it is already done.

8. Page 4, background; para 2: ‘From’ a global perspective and not ‘In ……’


10. Page 5, background; para 3. ‘The proposed criteria … 11.1 mg/dL’ See major comment 3, above.

11. Page 6, background; para 7. This study ….related to GDM. This MUST be redone and is unacceptable. Too many errors here. How can you have a prevalence of OGTT? There is no outcome of an OGTT. A patient after OGTT has GDM or no GDM – based on any criteria followed.

12. Page 8, methods; Line 4- change diagnostic procedure to diagnosis. Line 10: change ‘applied by’ to ‘used by.’

13. Methods; page 9. AIDPSG is IADPSG.

14. Page 1, Results: a) Nationally,……12.2 mmol/l. Rewrite as shown in abstract. ‘Four categories were composed’ change to ‘Four schemes for GDM screening were followed.’ b) 56.8% in Sweden ‘were exposed’ change to ‘underwent.’ Same problem in 88.7% ‘were exposed’ to. c) The ‘most prevalent indicator’ for OGTT… rephrase. Indicator?

15. Page 12, line 2: change applying to using

16. Page 12, Heading. There is no such thing as prevalence of OGTT.

17. Page 15, Discussion. Between 2011 and 12012, there was no national……

18. Page 15, Discussion, last line. Change ‘applied’ to ‘used’ and the highest ‘usage’(not prevalence) of OGTT was seen in. There is no such thing as prevalence of OGTT.

19. Page 16, Discussion, Para 1. ‘A minor part’ of Swedish pregnant women should be changed to ‘Few’ Swedish pregnant women. Also, page 17, line 2.

20. Page 16, Discussion, Para 3. and WHO ‘suggest’ not ‘suggests.’

21. Page 17, Discussion, Para 1, line 2. Change ‘exposed to’ to ‘underwent’

22. Page 17, Discussion, Para 2, line 1. Redo this sentence.

23. Page 18, Discussion, Para 2, line 1. Change unrevealed to undiagnosed glucose intolerance.


25. Title: consider a smaller, succinct title.

In conclusion, this paper needs a major overhaul. If it is reduced by 30-40%, it would read much better and the authors would be forced to cut the irrelevant flab and make it more logical.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests