Reviewer’s report

Title: Adherence of Iron and folic acid supplementation and determinants among pregnant women in Ethiopia: A systematic review and Meta-analysis

Version: 0 Date: 14 Jun 2019

Reviewer: Jahnavi Daru

Reviewer's report:

Dear authors,

I enjoyed reading your manuscript and feel the topic is important are relevant. I do have a number of questions (outlined below) that if answered will improve the quality of the manuscript.

Introduction

* Many of the references the authors mention in the introduction (in terms of the benefit of iron supplementation) relate to studies conducted in other healthcare settings. Can the authors provide references to benefits of IFA in Ethiopia, even if the data are scarce, or explain why these studies are relevant to generating their hypotheses?

* Please could the authors provide a rationale for why this review was needed and limited to Ethiopia only and not other countries across the African continent? Are the reasons for non-adherence to IFA proposed to be very different in Ethiopia? Was this review designed to inform national policy? I am sure there are clear reasons, but these need to be stated so the reader has the appropriate context.

Methods

* What was the rationale to limit the search to 2000? Please could the authors comment.

* Please could the authors include a reference to the following statement: "Adherence of IFA supplementation was define by WHO, a woman who had taken iron folate supplements or at least 4 days per week or 16 days for one month during her index pregnancy period was considered as adhered to iron-folate supplementation”? This is important for interpreting the findings, especially for clinicians reading this paper.

Results
* I notice that the flow diagram of included studies is an additional file. It would be more characteristic to have this as the first figure.

* Can the authors provide a table of population characteristics of the women in the studies: where the women in the included studies similar or different (e.g. different profiles in obstetric risk factors, number of pregnancies, gestational ages etc). All of these factors are relevant to interpreting the results of the pooled analyses. Especially, as we know that gestational age will have a huge bearing on the definition of anaemia applied, and consequently the dose of IFA provided. Moreover an overview of the doses of IFA administered across all the included studies would also be helpful.

* I also notice there is just a description of the overall quality of the included studies and no mention of what were the design of these studies, or the quality per domain of the Newcastle Ottaway scale for all included studies. To my understanding, this is routinely reported in systematic reviews.

* There are multiple subgroup analyses presented, these are different to what was pre-specified in the PROSPERO registration. Please could the authors comment.

* I am unclear as to why the authors are presenting p values for assessment of heterogeneity. This is not usual practice (to my knowledge), so please can the authors explain why this was necessary.

* The application of assessments of publication bias, (again to my knowledge) are done overall and not for each specific end point. Please could the authors explain why they thought this was necessary?

* There are many pooled analyses presented as separate figures, can these be rationalised in any way?

Discussion

* There are many limitations to the data collected within this review, as demonstrated by the high heterogeneity across most outcomes as well as the quality of studies. This needs to be addressed in the discussion section of the manuscript. This will have an impact on the validity of the results and a comment to this effect is necessary.

* A comment on what the implications are from this review on clinical practice and policy would also be helpful.

I hope these comments are helpful.

Best wishes,
Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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I have been on an advisory board for Pharmacosmos, a producer of intravenous iron to provide advice on assessing side effect profiles of intravenous iron preparations in 2018. I do not think this has impacted my ability to fairly assess this manuscript.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
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