Reviewer's report

Title: Gaps in the evidence for prevention and treatment of maternal anaemia: a review of systematic reviews

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Reviewer: Nigel Simpson

Reviewer's report:

This is a timely, comprehensive and well-written paper bringing together all the systemic reviews on the prevention and treatment of anaemia in pregnancy, highlighting the difficulties in managing this condition and the wide variations in care both antenatally and postnatally. The methods used for data collection and analysis are robust and very clearly explained. Only a few areas would require further consideration (all discretionary revisions):

• The primary focus of the paper is to review the range of interventions used in the prevention and treatment of anaemia in pregnancy (pg.3). This is a challenging task and there is significant variation in practices and populations both within the UK and overseas. This may create significant difficulties in comparisons. The authors may want to comment on this heterogeneity in more detail and the difficulties which it created in reviewing the systematic data. Have studies from other developed countries been included?

• The paper’s title mentions maternal anaemia but the focus seems to be iron-deficiency anaemia. This ought to be clarified by the authors in the title and/or text.

• The authors chose to study anaemia management up to 1 year postpartum (pg.5). They may want to explain why they selected this time frame.

• The authors quote three reviews (pg.8) which conclude that gastrointestinal side effects are more common with higher doses of iron supplementation, however it is known that constipation and diarrhoea associated with iron are not dose related. The authors may want to comment on this in their discussion.

• The eight reviews investigating the role of micronutrients (pg.8) found no evidence to support, amongst others, Vitamin C. This also goes against the standard knowledge that Vitamin C enhances the absorption of non-haem iron which makes up to 95% of all iron in a standard diet. The authors may want to comment on this apparent discrepancy.

• The authors quote Rasmussen 2001 (pg.10) assessing the effect of iron on birth weight and gestational age. However the dose of iron used in this paper (12-100mg) was much lower than the standard preparations (100-200mg). Could this have contributed to the lack of improvement in clinical outcomes?

• The authors comment on the allergic reactions associated with intravenous iron dextran and uncertainty regarding risk of venous thrombosis (pg.11). This is an
important issue and requires further detail or comment.

- The importance of including outcomes in future RCTs and identifying effective ways of managing anaemia in the postnatal period has been identified by the authors. It would be interesting to know what the authors think of universal supplementation of iron and whether this may play a role in standardising the prevention and treatment of iron deficiency anaemia.

Etienne Ciantar/Nigel Simpson
University of Leeds
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**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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