Reviewer’s report

Title: Cyclical iron supplementation to reduce anemia among Brazilian preschoolers: a randomized controlled trial

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Reviewer: Therese Dowswell

Reviewer’s report:

Thanks for sending me this very good manuscript to review.

First, the authors address an important public health question; anaemia in young children is a problem throughout the world and examining the best way to administer iron to reduce anaemia while avoiding side-effects is relevant to health care providers in many settings. The question is well defined.

The methods (RCT) are appropriate and well described. The analysis methods are described and seem appropriate. The data appear sound. The authors state that there were no significant differences in the age, weight etc of children in the two groups, nevertheless, I thought the paper could have been improved by the addition of a table setting out the background characteristics of participants. This would be helpful so that readers could compare characteristics of children in the two randomised groups and it would also allow readers to consider the extent to which findings can be generalised to other settings and populations. (I suggest this could be a discretionary revision).

I would also like the authors to clarify whether they collected information about side-effects in a systematic way - were school staff asked to record possible side-effects or to record where absence from school could be due to side effects. At the moment all we know is that 3 children experienced nausea over the study period. The fact that children may suffer fewer side effects with intermittent (eg weekly) supplementation is one of the main justifications for recommending this type of regime. I suggest that the provision of more information on side effects should be an essential minor revision. If information on side effects was not collected this may be a limitation of the study.

The authors use appropriate up to date references and the paper is well-written. The abstract accurately conveys the findings (a very minor point - I would avoid using dashes just before numbers in the results section of the abstract as this could suggest a negative value).

I enjoyed reading this paper on an important topic.

Level of interest: An article of outstanding merit and interest 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 I have no competing interests