Reviewer's report

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

**Version:** 1  **Date:** 15 September 2012

**Reviewer:** Ekhard Ziegler

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This manuscript reports the results of a trial comparing two regimens of iron supplementation of preschool children. Both groups received the same amount of supplemental iron, but one received it in weekly doses whereas the other (cyclical) received it in two supplementation periods each lasting 20 week days, separated by 4 months. The manuscript needs improvements in a number of areas, including English diction.

1. **Supplemental iron:** We must know what the concentration of ferrous sulfate was, whether it was flavored, what volume of the solution was given, how it was measured (syringe?), how it was given to the children? Was it given on an empty stomach?

2. **Hemoglobin:** We must know how blood was obtained (venous or capillary)

3. **Subjects:** There were apparently 252 children in the 4 day care centers. Of these 110 participated and we need to know how you got from 252 to 110. We need to know how many were excluded because of infections, because they took iron supplements or because they had hereditary anemia (sickle cell disease?). And how many parents declined to let their children participate? What are “infections” – viral colds? parasitic infestations?

4. **Statistics:** It is not evident where ANOVA was used.

5. **Results:** This reviewer would like to suggest that the results regarding prevalence of anemia be incorporated into the table. In the table, “variation” should be changed to “difference” or “change”.

6. **Abstract:** It needs to convey to the reader in succinct form the essentials of the study and its results. What is missing now is who the study population was. It must state exactly what was done. For example, “the weekly group received 30 mg elemental iron sulfate” needs to be changed to say that this dose of iron was given weekly. In the results, increases in hemoglobin are given as “− 0.27 g/dL” which would be understood by most readers as a decrease.

7. **Discussion:** Maybe you want to say the reason why iron supplementation did not completely eradicate anemia is that not all anemia is caused by iron deficiency. “Adhesion” should be changed to “adherence” or “compliance”; “school” should be changed to “daycare”
**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 have no conflicting interest or financial interests