Reviewer's report

Title: The effects of oral iron supplementation on cognition in older children and adults: a systematic review and meta-analysis

Version: 1 Date: 23 September 2009

Reviewer: Katalin Fekete

Reviewer's report:

This is clearly structured manuscript, addressing a highly relevant and actual question. Falkingham et al collected and evaluated all relevant randomised controlled trials concerning the effects of iron supplementation on cognition in children aged at least 6 years and in adults. I feel that this paper maybe suitable for publication in the Nutrition Journal; however I have a few minor comments and suggestions.

Minor comments:
1. Page 2, line 24. Abbreviation of intelligence quotient is used although it has not been previously defined.
2. Page 2, last sentence. This is redundant.
3. In its present form the introduction is nearly four manuscript pages. I feel that some data of the literature may either be placed into the discussion or omitted. In my view, the Introduction should be limited to 2 manuscript pages.
5. Page 4, line 25. Please move the dot behind the reference number.
6. Page 5, line 11-12. “children aged 0 to 59 month” should be changed into “infants and children aged under 5 years”.
7. Page 5, line 18-19. “very young children” should be changed into “infants and young children”.
8. Page 6, line 21. Abbreviation of World Health Organization is used although it has not been previously defined.
9. Page 6, line 24. Abbreviation of World Health Organization should be used.
11. I did not find the reference of Additional file 2 in the text.
12. Page 9, line 3. What denotes “similarity to the control”? Could the author please clarify this?
13. Page 10, line 4. Abbreviation of haemoglobin and serum ferritin is used although it has not been previously defined.
14. Please write figures and tables in capital letters in the text. Please be consistent.
15. Page 10, line 15. “Reference manager” should be “Reference Manager”
16. Page 10, line 18. Abbreviation of World Health Organization should be used.
17. Page 10, line 18. Please move the dot behind the reference number.
18. Please write space between amount and unit. Please use the format throughout the paper.
19. Page 11, line 10. “I2” should be changed into “I2 test” or “I2 statistic”.
20. Page 12, line 4. From the 1554 titles and abstracts were identified… (Do not include the duplicates).
21. Page 12, line 6. The Lambert paper [31] was not used in the analysis. Please exclude it from the references.
22. Page 12, line 16. “anaemic women” should be changed into “anaemic non-pregnant women”.
23. Page 13, line 16. “There were dropouts in 11 studies (none in one study, unclear in 2 studies)” reported in Table 2.
25. Page 14, line 19. “premenopausal” should be “pre-menopausal”
26. Page 15, line 12. The origin of this result is unclear. How was it calculated?
29. Page 20, line 23-24. Page numbers are unnecessary and should be eliminated.
30. Table 1 and 2. Need to be re-formatted, as several columns are too crowded.
31. Table 1. Misspelling – Study duration
IQ: intelligence quotient
32. Table 2. Please define here low, moderate and high funding bias.
Misspelling – Allocation concealment
Abbreviation of haemoglobin and serum ferritin is used although it has not been defined.
33. Table 3. would be more impressive with a “Number of studies” column.
34. Please take care to follow the reference style precisely.
35. Figure 1. Missing downwards arrow between “Titles and abstracts screened” and “Full papers and…” textboxes.
36. Figures. “Total” columns should be changed into “N” (number of participants). The first columns should include not only the name and year but also the reference number.
   Not complete names of the X axes.
37. The “Year” column in Figure 2 and 5 is unnecessary and should be omitted.
38. Figure 3. “Favours iron supplementation” was used in the other forest plots.

**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.