Reviewer’s report

Title: Anemia, diet and iron supplementation among children living with HIV: a prospective cohort study

Version: 3
Date: 22 September 2015

Reviewer: Elizabeth Kibaru

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I need clarification on various issues

A) Major compulsory revisions

1. The title suggests that iron was given as a supplement but in the methodology it was given for treatment to only the children with anemia. FDA defines a dietary supplement as a product intended for ingestion that contains a "dietary ingredient" intended to add further nutritional value to (supplement) the diet. What is the true position?

2. On line 85 and 86 the authors mentioned that perinatally acquired infected was indicated by history or documentation of one or both parents being infected
   • Does having infected parents translated to a confirmed source of infection considering the age of children in the study?
   • If only father was infected what is the likelihood that the child will be infected?
   • Was early infant diagnosis to confirm diagnosis in early childhood? Was there any evidence of in utero exposure to antiretrovirals having an influence on baseline hematological parameters? J Infect Dis. 2006 Oct 15; 194(8):1089-97

3. In line 145 on follow-ups, no interventions was offered apart from iron for treatment, was there any food supplements or multivitamins provided? And if so what was the impact on Hb level? These have been shown to have a positive influence on the hematological parameters.
   • Ref: Multivitamin supplementation improves hematologic status in HIV-infected women and their children in Tanzania by Wafaie W Fawzi, Gernard I Msamanga, Roland Kupka, Donna Spiegelman, Eduardo Villamor, Ferdinand Mugusi, Ruilan Wei, and David Hunter

4. In line 208 on the etiology of anemia and changes after iron 43.4% were already on HAART at baseline
   • What was the impact of this at base line?
• Were there other drugs used in this children that could have affected the Hemoglobin levels e.g. sulphamethoxazole trimethoprim?

• Line 210: Vitamin A was noted to cause anaemia in 26.6% which criteria was used to conclude this? Note that the Attachment on etiology is not clear as most of the etiologies were combined 2 or more.

• At least the prevalence of major hemaglobinopathies in the population studied should be discussed since this is likely to have an effect on the hemoglobin Levels seen. This includes HbS and thalassemia. (See Curr HIV Res. 2013 Apr;11(3):187-92.)

5. In 251 on effect of iron supplementation there was reported positive changes on hemoglobin levels but were all these children on HAART and what was the difference in changes between those on HAART and iron versus HAART and no iron. HAART alone has been shown to markedly increase the hemoglobin levels ref


6. In the discussion from line 273 there is minimal reference of the study findings as the authors are discussing. There is need to refer more and more to your findings

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

i declare that i have no competing interests