Author's response to reviews

Title: Anaemia in HIV-infected children: Severity, types and effect on response to antiretroviral therapy.

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Author's response to reviews: see over
The Editor in Chief

BMC Pediatrics,

Dear Sir/Madam,

Re: Submission of revised manuscript as Research Article

On behalf of my co-authors, I am submitting a revised manuscript entitled “Anaemia in HIV-infected Children: Severity, Types and Effect on Response to HAART”.

We thank the reviewers for their thoughtful comments. We have worked to clarify more on the issues they have raised following our resubmission. Our specific approach to each reviewer’s query is detailed below.

With respect to Reviewer AT’s comments:

Minor b) and Major b): The authors did not break down their category of "late stage HIV disease" into the numbers of patients that fit into stage III and stage IV. This should be reported so that the readers can understand the spectrum of severity of illness of the included patients, as requested.

On page 8, under Results, subheading: baseline assessment, line 3, we have indicated the number of patients in early stage (I & II) and clearly separated them into stage I and stage II. The patients in late stage (III & IV) have also been placed separately into stage III and stage IV respectively.

Major a): regarding HIV-1 vs. HIV-2 prevalence. The authors state that they indicate that HIV-1 is the vastly predominant strain in this region of Africa, but I cannot find reference to this in the manuscript.

Page 5; We previously stated that HIV-1 is the predominant strain of HIV in this part of Africa but did not provide a reference. We have now included a reference as 11.

Major c) this question regarding viral load correlation with anemia and clinical stage has not been answered

Table 3 shows significantly higher levels of viremia among children with anaemia compared to those with no anaemia at baseline, 3 and 6 months. Data also shows a high proportion of children with suppressed viral load <400 copies/ml among children with no anaemia compared to children with anemia.
The question of correlation of anaemia with clinical stage is answered in table 2. Table 2 shows that 79.1% of children with anaemia had advanced clinical stage of HIV compared to only 46.8% among the children without anaemia.

These are elaborated on page 11 in the discussion. Our analysis did not explore the correlation between viral load with clinical stage as this was not of primary interest for this study.

Major e) the authors comment that they did not have sufficient numbers to correlate type of anemia with response to ART. This should be stated in the limitations paragraph. It might be a good idea to add to the 3rd sentence in the limitations paragraph, as follows: A causal relationship should not be inferred about the association between anaemia and ART response, however using our multiple regression analysis, anemia remained a significant predictor of virological response.

Thank you for this contribution, the first half of this sentence was already reflected in the limitations. The second part has been added in the discussions. (end of page 12, beginning of page 13)

Reviewer EM

Major 3: Authors should state in Methods that the study numbers and variables met the assumptions for the t-test.

It was stated in the methods on page 7, the last paragraph that the variables; CD4+ and viral load met the assumptions for the t-test

Please ask authors to indicate the specific query they are responding to by number, if supplied and to indicate by page, paragraph and line number where they have altered the manuscript. It is very difficult to sort through the old and new versions to see where the changes have been made.

We have now referred to the changes by page and line number.