Reviewer's report

Title: Outcome of highly active antiretroviral therapy in HIV-infected Indian children.

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Reviewer: Linda Aurpibul

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Reviewer’s comments

Manuscript title: Outcome of highly active antiretroviral therapy in HIV-infected Indian children.

Authors: Mukherjee A et al.

This article presented efficacy of ART in Indian HIV-infected children up to 48 months after treatment initiation. It was a retrospective data analysis from chart review. The manuscript was well prepared, although the study results were not novel as it is known today that ART was effective and led to growth improvement as well as immune recovery among HIV-infected children. However, the paper remains significant and might be interested for health care workers in similar setting.

I would like to recommend revisions on the following issues;

Major Compulsory Revisions

Methods:
1. Inclusion criteria should be listed including age range of enrolled participants. Details in this part should be re-arranged starting from inclusion criteria, treatment regimen, follow-up and monitoring.
2. The term “default” used for children with missing dose is vague and should better be replaced with a more conventional term i.e. non-adherence, or suboptimal adherence.

Results:
3. Line 129; what were the causes of death?
4. Line 129-130; How long did it take from HAART initiation to death or LTFU?
5. Line 138; For TB occurred after HAART initiation, were they IRS? The diagnosis was made by sputum AFB, culture, or others? Were they confirmed or probable cases of TB?
6. Line 148-149; A trend towards more chances of default in case with expired father, what was the comparison group, those with both parents alive or those who lost both?
7. Line 150-154, how long did it take from HAART initiation to changing regimen?
8. Line 163: mean time to treatment failure should be presented with SD, or much better to be presented as median (IQR) as I don’t think the data was normally distributed.

9. Line 177-179 and line 185-192, change in CD4, WAZ, HAZ, and ESR should be accompanying with p-value so that the readers could know whether the change was significant or not. To describe a change in CD4, it would be better to separately report children aged < 5 in percentage, and those > 5 in number of cells.

Minor Essential Revisions
1. Title should be written in all upper case letters.

2. Abstract, please consider consistency in term and pattern of data presentation:
   - Line 23 and 37: HIV-infected children (some with dash in between, some without),
   - Line 28-32 median XX (IQR XX-XX), or whatever pattern used should be reconciled.
   - Line 32 misspelling “cells”
   - Line 33 ….improvement with time after HAART initiation.
   - Line 33 baseline WAZ should be -2.8 (the minus sign is missing)
   - Line 35 The last sentence of results, Treatment failure, death and non-adherence should be re-arranged by their severity (non-adherence, treatment failure, and death). Number (%) should be presented for all three items.

3. Table 1: what does “H/O” mean? All abbreviations used in the table should be defined at footnote. If the authors stated that number in n(%) at footnote, they did not have to put “%” at the number within the table again.

Level of interest: An article of limited interest

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 declare that I have no competing interests