Reviewer’s report

Title: High prevalence of lipoatrophy in pre-pubertal South African children on antiretroviral therapy: A cross-sectional study

Version: 2 Date: 3 June 2012

Reviewer: Leah Kern

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Major Compulsory Revisions
None

Minor Issues Not for Publication/Minor Essential Revisions
1. (Abstract paragraph on results “51/64”; Methods paragraph one “100 subjects…”; Results paragraph one “100 subjects…”; Results paragraph one “12 of the 36…”; Results paragraph two “35 of the 36 children…”): Write out the number if it starts a sentence.
2. (Discussion paragraph 2): “This suggests that immigrant African populations in Europe may be different” compared to “populations living in sub-Saharan Africa….”
3. (Discussion paragraph 4): The last sentence should be divided into 2 sentences.
4. (Discussion paragraph 6): The last sentence may be clearer if divided into 2 sentences.
5. (Table 3 column one, row two): “mean” is repeated twice, please correct.

Discretionary Revisions
1. (Abstract paragraph on results; and in Results paragraph 4): “…when age and sex were adjusted for.” may read better as “…when adjusted for age and sex.”
2. (Abstract paragraph on results): “51/64 (80%) of children without lipoatrophy were on stavudine-based regimens at recruitment.” Why include this statistic in the abstract? Would it not be more informational to report the association between length of stavudine exposure and lipoatrophy?
3. (Methods paragraph 1): What were your “inclusion/exclusion criteria”? How did you determine that the children are “pre-pubertal”?
4. (Methods paragraph 1): What was the training for the “two expert HIV paediatricians” for identifying and grading lipoatrophy? How did they reach consensus? What if they disagreed?
5. (Methods paragraph 2): From what/where were the “Durations of previous antiretroviral exposures, demographics, HIV RNA and CD4 values…” recorded?
6. (Methods paragraph 3): What determined who received DXA scanning and who did not? What DXA measurements were made?
7. (Results paragraph 2): Why was zidovudine or ddI exposure not included as a risk factor?

8. (Results paragraph 2): “In children on stavudine, with one exception, lipoatrophy was not seen until at least 18 months of stavudine therapy.” Can you explain how you came to this result?

9. (Discussion paragraph 5): You conclude that “…visual assessment may be used for large-scale surveillance in the developing world….” It may be helpful to mention in the Methods or Discussion section what is the “specific training” required to visually assess lipoatrophy.

10. (Conclusions paragraph one): Can visual assessment really be used for large-scale surveillance in the developing world if it requires identification by “expert HIV paediatricians”?

**Level of interest:** An article of importance 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.