Reviewer's report

Title: Susceptibility to intestinal infection and diarrhoea in Zambian adults in relation to HIV status and CD4 count

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Reviewer: Gilbert R Kaufmann

Reviewer's report:

The study has been conducted in an interesting location, but the data need a lot of clarification. The introduction is very interesting and informative. However, the results section is very shortly described and incomplete. In particular, certain comments from findings in the literature are mentioned in the introduction and in the discussion, but no data are shown in the results section. What are the new findings of this study? This needs to be worked out more clearly. Although interesting, I believe that paper needs a major revision.

A table with the patient demographics is missing. How many patients were children? Were children more susceptible to gastrointestinal infections?

It would be interesting to show CD4 T-cell count and the occurrence of HIV-associated gastrointestinal infections.

What is the exact definition of diarrhoea? It would be important to mention the definition in the Methods section.

Why is the prevalence of diarrhea not higher in HIV positive patients? I think that this finding needs an explanation.

Why was serum retinol concentration measured?

What are the results of the questions asked by study nurses?

How many patients had co-infections?

58 patients were HIV seropositive at one time or another: what is meant by ‘another time’?

Certain non-pathogenic protozoa were less common in HIV-1 infected adults: which ones and why?

What are the new results from this study? This needs to be explained in more detail in the discussion section.

What is the percentage of co-infections in patients?

Overall 14 of 123 individuals had CD4 counts under 200 cells/mcL: why 123 individuals?
Are certain pathogens more common in this cohort than in European countries or in the US?

In particular, it would be interesting to have an analysis of the age of the patient and the occurrence of gastrointestinal infections (children vs adults).

**Level of interest:** An article whose findings are important to those with closely related research interests

**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