Reviewer's report

Title: Prevalence and Genetic Characterization of Cryptosporidium, Enterocytozoon, Giardia and Cyclospora in Diarrheal Outpatients in China

Version: 2 Date: 19 November 2013

Reviewer: Bonnie Meatherall

Reviewer's report:

DISCRETIONARY REVISIONS
1) Background, paragraph 2: It would be helpful to explicitly state that Enterocytozoon species are in fact generally referred to as Microsporidia as some readers may not be familiar with the nomenclature.
2) Methods, paragraph 2: I do not think it is necessary to include the age range of participating patients in the methods. I think this information is better suited for the results section.
3) Discussion, paragraph 5: The sentence “In future studies…” is unclear.

MINOR ESSENTIAL REVISIONS
4) Discussion, paragraph 4: The first sentence says “…all positive specimens belonged to assemblage C…” I think this should say “…all but one positive specimen belonged to assemblage C…” as the results data suggest that one specimen was consistent with assemblage B.
5) Figure 1 legend: The word “human” should be plural (“humans”). Was there a X2 analysis for the Giardia seasonality data set that could be included in the legend?
6) Figure 2: Why were these age groups chosen to represent the age variable? Were they based on data point distribution or is there clinical relevance to these categories?

MAJOR COMPULSORY REVISIONS
7) Methods, paragraph 5: I think more information is required regarding the statistical methods used beyond the software package used for the analysis. How was the sample size determined? Which statistical techniques were used for univariate and multivariate analysis? How were multivariate models built? What P-value is considered significant in this analysis? How was age handled as a variable?
8) Discussion, paragraph 5: Minimal discussion regarding limitations. For example, no data on whether patients in the clinic were immunosuppressed or whether patients had direct contact with animals/livestock. Another limitation is that only two seasons (winter and spring) were studied.

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.