Reviewer's report

Title: Evaluation of real-time PCR assay for detecting Schistosoma mansoni infections in a low endemic setting

Version: 1  Date: 28 July 2014

Reviewer: Nicholas Midzi

Reviewer's report:

Comments to the Article: 1562894302131650

Comments to the abstract
No comment

Comments on the Background
No comment

Methods:
(1) The authors should explain how the sample size was calculated.

Statistical analysis section:
No comments.

Ethical aspect
No comment

Ethical aspect of animal experiment
(2) (Geneva, 1995)- For consistence, please revert to numbering your references in text rather than changing to text.

(3) In order to avoid putting too many subheadings that are unnecessary the subheadings on ethics should not be two. Only one subheading (ethical aspect) should be written. The two sections on ethics should form two paragraphs.

Method of laboratory diagnosis
(4) The subheading should read specimen collection.

Parasitological methods
(5) The two references here about Kato Katz should be numbered

(6) In brief the authors should explain how the Helm Test Kit was used to perform the Kato Katz technique

Real-time PCR assays
(7) This subheading is already under the main heading “Methods”. It should therefore not have other subheadings such as “faecal sample preparation and standardizing the detection of S. mansoni DNA by qPCR” under it. The two sub-section should form two paragraphs just to show flow of ideas.
All the references here should be numbered as in the background.

The following is not a full sentence “Egg-derived DNA and 170 DNA derived from a solution of 500 mg mixed with 200 S. mansoni eggs”. It should be revised.

Standardizing the detection of S. mansoni DNA by qPCR

All references to be numbered as in the background

DNA extraction

The subheading should read DNA extraction from the serum of hamsters.

Purification of DNA extracted from faecal and serum

No comment

Amplification of DNA from serum and faecal samples

Primers and probes

All references to be numbered as in the background

TaqMan® Real-Time conditions of serum and fecal samples

No comment

Criteria used to evaluate the results obtained by TaqMan® Real-Time PCR using stool and serum samples

No comment

Results section

The majority of subjects in the study population were females, with an average age of 40-41 years

If table 2 is not referred in the text then it is a redundant table and should be removed.

Discussion

This section is well discussed with reference being made to the results and what others have found in the same field of study. However, authors needed to point out limitations in their study. For example they took a single day stool when they are aware that the sensitivity of the KK test is improved by testing samples collected on two to 3 successive days to cater for daily variability egg production by an infected person. Overall, the paper is well written and provides useful information. The paper can be accepted when minor revisions indicated in this review are addressed.