Author’s response to reviews


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Author’s response to reviews:

Dear reviewers!

First of all, I would like to thank you for your valuable comments on the article. All of your comments were considered. The description below shows your comments and corresponding feedbacks.

Reviewer 1

1. Page 6, Table 3 and Page 7, Table 5. In the last column of the Table, the average weight ± RSD is reported. The RSD Relative standard deviation is 100*SD/X̅, where X̅ is the absolute value of the mean. SD is the right statistical parameter to be used for describing the distribution of the data. In the Tables RSD must be substituted by SD value and/or the calculated relative standard deviation has to be reported in a separate column.

>>The comment is corrected in Table 3 and 5. We put RSD values in a separate column. We preferred to RSD instead of SD since some pharmacopeia use RSD as a criterion to assess the quality of drugs. Anyways, we used both in the updated version of the article.

2. Page 8, rows 154-159, The obtained results showed that four batches are constituted of tablets with significant differences in weight (Brand 1 - 300 mg, Brand 3 - 2500 mg, Brand 5 - 300 mg and Brand 6 - 2500 mg) and three batches (Brand 4 - 600 mg, Brand 5 - 300 mg and Brand 6 - 2500 mg) API content lower than 90% of nominal load. Only two
of the cited batches showed both weight and API loading out of the acceptance range. These findings demonstrate that weight uniformity of tablets not assure the uniform distribution of the API throughout the batch. Moreover, the mass uniformity did not allow assuming that the API loading was the same in each tablet of the batch. Therefore, the sentences of the authors are misleading.

>>This comment is corrected from rows 154-156. Weight variation among tablets may lead for variability in dosage of individual cases.

Reviewer number 2

1. It would be very important include some discussion about albendazole pharmacokinetics (PK) and its relation with treatment failure.

>>Even though PK is an important issue for the success of treatment; it is beyond the scope of the paper. PK studies usually require the use of animals (in vivo tests). This was not performed in our research. We did physicochemical evaluation of albendazole tablets which were circulating in the legal pharmaceutical market of Addis Ababa city, Ethiopia.

2. It is also very important to comment about the influence of medicines bad quality in emergence of resistance.

>>Yes, anthelmintic drug resistance related to the poor quality of a drug is well described in the paper (Lines: 165, 170, 181, 188, 194)

3. Please include some data about the morbidity and mortality caused in Africa due to parasitic disease.

>>The morbidity and mortality have briefly described on background document

4. Please include some discussion about the influence of pharmacokinetic alterations as cause of resistance.

>>The same as reviewer’s comment #1

Reviewer number 3
1. The authors talked about FTIR data. They included an in-depth section in "materials and methods" describing the FTIR approach. Why did the authors not show FTIR data in the results and discussion sections?

>>We used three methods (UVS, FTIR and HPLC) for identity test. Therefore, when we describe qualitative results (presence of API), we are also talking about FTIR. Directly or indirectly FTIR is described in the paper. Quantitative results were determined by HPLC.

2. In "materials and methods" section the description of the HPLC method used: gradient/isocratic, column type, flow, etc., is missing. Authors are invited to implement this part.

>>This comment is corrected on line 81 – 83.

3. In "results" section authors have reported a figure related to the UVS spectra. From the figure it is not clear what the sample is reported. However, it may be more interesting to report a figure where the overlapping spectra of all samples analyzed can be seen.

>>Figure 1. Shows ultraviolet-visible spectra of albendazole standard alone on the left side and the spectra of the standard and the sample (albendazole tablets) on the right-side in which the two spectra were superimposed.

4. In "results" section authors have reported a figure related to the chromatograms. Also in this case, from the figure it is not clear what the sample is reporting. However, it may be more interesting to report a figure where the overlapping chromatograms of the samples analyzed can be illustrated.

>>Figure 2 shows the chromatogram of standard and sample (albendazole tablets), respectively (upper standard, lower sample). It is practically impossible in our procedure to get figures which are overlapping since the standard and the sample were injected and processed in HPLC machine separately and the peaks were emerging independently. Identification will be done by comparing the retention time of two peaks (the standard and the sample).

5. I missed information how often a given measurement has been made. I had the impression that several of the measurements were only done once.

>>FTIR, UVS and HPLC procedures, we run samples at least three times to increase the precision (line 97-98)

6. Using a batch for each brand and dosage is a little bit for this kind of analysis. At the same brand and dosage, at least 3 batches should be verified.
We believed that the sample was sufficient to meet our objectives. Further studies can be designed by including more batches and brands.

7. The manuscript will need proofreading by a native speaker

>>Necessary corrections were considered after a native speaker revised the manuscript

8. Tables: In tables, the concentration is expressed in a different manner. Can authors use the same way to express value?

>>The comment was considered and we tried to express values in the table.

9. Table 4. The font is different from the other tables and the text.   >>Corrected


>>Corrected

11. In some references DOI is missing, even if specifically required by the journal.

>>We included DOI for those articles having it.

Best regards!