Reviewer’s report

Title: International External Quality Control Assessment for the Serological Diagnosis of Dengue Infections

Version: 2 Date: 21 September 2014

Reviewer: Luan T. Nguyen Thien

Reviewer’s report:

Major Compulsory Revisions

1) In the Abstract section, the “Results” paragraph include both results and discussion of the study. Therefore, the title of this paragraph should be changed to “Results and Discussion”, or this paragraph should be splitted into two separate “Results” and “Discussion” paragraph.

2) In the Abstract section, the “Conclusion” paragraph stated that “This EQA study demonstrates that the sensitivity of dengue IgM detection needs improvement”. However, that the sensitivity of dengue IgM detection needs improvement was not discussed in the Discussion as well as the Conclusion in the manuscript. I think it would not be appropriate to mention this idea in abstract without discussing it in the main part of the manuscript.

3) In the Introduction ("Background"), the manuscript did not mention what is unknown in the subject of this study, and the research question was not provided in this Background section.

4) There is no paragraph discussing the limitations of this study.

Minor Essential Revisions

1) Line 118-121, Page 6: This sentence cannot be well understood, the meaning is not expressed clearly. Please rewrite this sentence.

2) Line 181-189, Page 9: These two paragraphs either contains the information that was mentioned in the Method section or should be put in the Method section, not the Results section.

3) The following phrases, sentences or paragraphs, in my opinion, should be moved to the Discussion section:
   i) Line 210-211, Page 10: In my opinion, which factors might affect the results of the tests should only be discussed in the Discussion section.
   ii) Line 240-242, Page 11: The sentence “The remarkably higher sensitivity ... IIF assays”
   iii) Line 247-248, Page 11: The phrase "indicating major problems... in-house protocols"

4) Line 297-300, Page 14: This paragraph “EQA studies for laboratory serological diagnostics ... assistance to the participating centres.” describes the general benefits and contribution of EQA studies to diagnosis of DENV, so it should be put in the Introduction (Background) rather than Discussion.

5) Line 312-313, Page 14: “compared to previous exercises”: I do not understand what “previous exercises” refers to. Please add reference for this idea.

6) Line 313-317, Page 14: I do not understand why the benefits of the participating laboratories should be discussed. I wonder if this information is relevant or not.

7) Some errors in written English or typos need to be corrected:
i) Line 120, Page 6: “manufacturer’s” should be changed to “manufacturers”.
ii) Line 152, Page 7: “participating” should be changed to “participating”.
iii) Line 202, Page 9: “most” should be changed to “the most”.
iv) Line 217, Page 10; Line 347, Page 15; and Footnotes of Table 1, Table 2: “in house” should be changed to “in-house”.
v) Line 219, Page 10: “p=” should be changed to “p =”, and there should be correspondence in the whole manuscript (for example, Line 270 page 12, there is no space between "p" and ">").
vi) Line 283, Page 13: “suggests” should be changed to “suggest”.
vii) Line 343, Page 15: “aimed to” should be changed to “aiming to”.
viii) Line 378, Page 17: “the other” should be changed to “the others”.
ix) Title of Table 3: “byf” should be changed to “by”.
x) Footnote of Table 3: "rapid test" should be changed to "rapid tests".

Discretionary Revisions
In my opinion, the following points can be changed to obtain a better quality of the manuscript.
1) Line 197, Page 9: “IIF” might be put into parentheses: “(IIF)”.
2) Line 210-211, Page 10: I think the term "performance" should be defined at the first time it appears in the manuscript so that its meaning is well understood (for example, the authors might define "performance" as the percentage of correct results of each laboratory, which is described in Table 2).
3) Line 222, Page 10: I think there should be a comma (",") before "followed by", as this sentence is too long and is a complicated sentence with many integrated phrases.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**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.