**Reviewer’s report**

**Title:** Dengue type 4 in Rio de Janeiro, Brazil: cases characterization following its introduction in an endemic region

**Version:** 1 **Date:** 12 Apr 2017

**Reviewer:** Anthony Jin Shun Chua

**Reviewer's report:**

Comments Arising from Past Review Comments

Major Revision #4:
The authors may wish to include their explanation on not performing statistical analysis due to the low number of cases in the prose.

Major Revision #7:
The authors must provide scientific evidence, either through earlier work or reported literature, which show that the circulating virus does not evolve enough to justify a more robust sequencing. Alternatively, the authors may provide statistical justification for their choice of a small sample size of 12. As a last option, the authors will need to increase their sample size.
The authors should also describe in their "Methods" section how these 12 representative strains were selected.

New Major Revision
1. Line 164: The authors should describe how the 8 dengue and 8 severe dengue samples were selected for viremia quantitation. Similar to the above comment, a total sample size of 16 is too small. Scientific justification for this small sample size is required.

New Minor Revision
1. Line 114: Remove "(DwoWS)" as it is not used anywhere else in the manuscript.

2. Line 171-172: The authors should include the temperature at which the heat-mediated dissociation method was performed.

3. Line 273: The percentage for the detection rate of anti-DENV IgM by ELISA is different from that stated in Table 2.
4. Line 283: The percentage for NS1 capture ELISA detection rate is different from that stated in Table 2.
5. Line 285: NS1 detection rate after heat immune complex dissociation is different from that stated in Table 2.

6. Figure 2: The "shadings" for the histogram bars are wrong.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.
Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.
Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.
Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:
Not suitable for publication unless extensively edited

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