Reviewer’s report

Title: Emergence of dengue virus 4 genotype II in Guangzhou, China, 2010: Survey and molecular epidemiology of one community outbreak

Version: 1 Date: 4 January 2012

Reviewer: Ng Lee Ching

Reviewer’s report:

Major compulsory revisions

General:
The manuscript describes briefly a DENV4 outbreak in Guangzhou, China. The amount of information and data should be reduced to a concise case report. Repetitions should be removed. The language needs substantial improvement. Care should be taken in quoting articles, without mis- or over interpretation.

Specific:
1. Page 2, background of abstract: awkward sentences, suggest to change to: “However, it has not been known to have caused an outbreak in China for the past 20 years”. “The purpose of this study was to elucidate the epidemiology of one local community outbreak caused by DENV-4 in Guangzhou city, China, in 2010; and to determine the molecular characteristics of the genotype II virus involved.”

2. Page 2: “imported index case from a tourist from Thailand.”, however later text stated that index was a Guangzhou resident who returned from Thailand.

3. Page 3, para 1 of background “The total yearly cost of treatment in dengue-endemic areas can reach US $2 billion [3]” The cost is for the 8 countries study, not for all dengue endemic areas.

4. Page 3 para 3: “The first detection of DENV-4 was reported in Easter Island, a territory of Chile, in 2009 and was classified to genotype II [8].” This can’t be true.

5. Page 3 para 3: “In addition, DENV-4 has a higher rate of dispersion than other serotypes [12]” please note that this study showed that DENV-4 has higher rate than than DENV2 in the Americas during the study period. Authors should not make a sweeping statement based on the study.

6. Page 3, para 3: “and the evolutionary rate may increase following geographical expansion [13].” Not sure how this statement is derived from the article quoted.

7. Page 3, para 3 “currently replaced DENV-1 as the primary epidemic strain in the Pacific region [15]. This occurred from 2007-2009. I understand that indeed some islands continues to be hit by DENV-4, however, author is encouraged to
give a quote that reflects current situation.

8. Page 5, para 2. : “objecting to recommendations” what does this mean?

9. It was unclear how 4-fold increase in IgG level was determined. IgG capture kit is meant to detect high level of IgG, typical of secondary infection.

10. Sequencing primers not stated and ref not quoted.

11. How extensive was the active searches?

12. Multiple repetition of results within “results section” (homology and phylotree tell the same story, need to describe only one) and discussion section.

13. More info could be given with regard to size of the affected area, and movement of people who got infected.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**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