Reviewer's report

Title: Serum IL-10 as a marker of severe dengue infection

Version: 1 Date: 9 April 2013

Reviewer: David Chien Lye

Reviewer's report:

The authors performed a prospective study to evaluate the utility of IL-10 at presentation to predict severe dengue. They reported that while IL-10 was significantly elevated in SD vs. non-SD, the discriminatory value as determined by AUC of ROC was not good.

Major compulsory revision

(1) Most of their patients presented late at days 4-5 rather than the first 3 days, thus limiting comparability of their data with other studies. This should be discussed.

(2) Specify what laboratory investigations were done several times a day as the following sentence stated that there was resource limitation.

(3) WHO 2009 defined severe dengue as severe plasma leakage, bleeding and organ impairment. The authors have selectively defined SD as "shock" or AST/ALT >1000. Please specify in Results per WHO 2009 criteria.

(4) Results should be in the right section: 15.4% had SD and 19.3% had primary dengue. This can be incorporated into a paragraph providing some information about the study cohort: age, gender, % with any co-morbidity, warning signs, categories of SD, primary vs. secondary, bleeding.

(5) Under cytokine assay in Methods, they mentioned IFN was measured in 78 but the abstract mentioned 65. Please check. Additionally they mentioned viraemic phase but no PCR or NS1 was apparently done, so please delete or change to "samples collected at presentation on median of day x".

(6) Results, paragraph 2, line 5, do the authors mean 48 rather than 8?

(7) Discussion, paragraph 1, lines 6-7, on influenza and rotavirus, the information is not pertinent, please delete.

(8) Discussion, paragraph 5, lines 2-6, on HIV, the information is not pertinent, please delete.

(9) Please incorporate all data in figures into Results with median values and ranges, and CI and P values of statistical comparison.

(10) Table 1, please delete column 4 on ROC value.

Minor essential revision

(1) Spell all acronyms in full at first mention: WHO, IL, IFN, GM-CSF, MIF, MIP, VEGF
(2) Harmonise US or UK spelling but not both: "haemorrhagic" (UK), "minimize" (US)

(3) Background, paragraph 1, line 5, do the authors mean to say "several" rather than "severe"?

Discretionary revision
None

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.