Reviewer's report

Title: Use of simple clinical and laboratory predictors to differentiate influenza from dengue and other febrile illnesses in the emergency room

Version: 2

Date: 10 July 2014

Reviewer: Katja Fink

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Symptoms of influenza and dengue infection can be similar. The aim of the study is to find simple clinical and laboratory parameters that could differentiate between the two diseases. An easily applicable set of discriminators could be useful in clinical practice, particularly during a concurrent influenza and dengue outbreak, which is a very likely scenario in dengue-endemic countries.

The numbers of patients included in this retrospective study (148 dengue, 526 influenza, 175 OFI) seems reasonable but the age range is huge.

For the discriminators to be of practical value they would need to be tested in at least one additional cohort that includes both dengue and influenza patients. The three parameters that distinguish influenza from dengue have been reported before and it would be good if the authors can mention what is different/better(?) in their study. For a better overview and for practical use a decision tree based on the parameters would be helpful.

The methods must be explained in more detail to assess the value of the findings.

Major Compulsory revision:

- as mentioned above, apply the same criteria for an additional cohort or at least try to narrow the age range for direct comparison and discuss the results in the context of other published results

Methods:

- define “febrile”; minimum temp for inclusion into the study?
- Dengue IgM serology is known to produce a significant number of false positives. It would be better to include dengue IgM-positive cases only as dengue-positive if there is at least one additional criterium (RT-PCR or NS1 or 4-fold increase in IgG).
- Which ELISA (kits) were used?
- The 1997 WHO criteria have been revised in 2009 and the criteria of DF versus DHF used in this paper are therefore debatable
- What is the justification for the cut-off’s of mild and severe thrombocytopenia? 100 x 10^9 platelets/L is not “severe” thrombocytopenia in the context of dengue.
- ALT>1000U/L: is this parameter sufficient to talk about “severe hepatitis”?
Results:
- table 1: the rationale behind pooling dengue and OFI patients is not clear
- what is the practical value of distinguishing influenza from OFI?
- What is the practical

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

Quality of written English: Acceptable

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