Reviewer's report

Title: Clinical features and pitfalls in the laboratory diagnosis of dengue in travellers

Version: 2 Date: 3 May 2006

Reviewer: Benedito Fonseca

Reviewer's report:

General

The revised manuscript by Wichmann et al. is better understood now, but there are still some statements that are hard to agree with. Even though a specific positive predictive value is a function of the prevalence of the respective disease, stating that the reason for their false-positives is the low cut-off value of this ELISA kit, since that would fit better for suspected cases from endemic areas than from travellers of non-endemic areas, does not seem to be correct. In endemic areas, flavivirus infections are common and a low cut-off would result in a higher percentage of false-positives due to the high cross-reactivity among these viruses. Also, Vaughn et al. found a high specificity for this ELISA in patients without flavivirus infections, a population feature compared to the one studied here.

The reason this kit has yielded a low PPV in the authors' hands is not clear, but as mentioned on the previous review, it seems that their major problem is the fact that they searched for IgM in about 20% of their samples collected before the third day of the disease. These samples are expected to be negative for IgM antibodies. According to figure 1, a rough analysis of the samples collected from the 4th to the 15th days after disease onset results in a higher PPV than that found when they analysed all samples. The fact that they needed to provide an answer to the acutely ill patients is experienced by most physicians working on travel clinics. They should consider performing a RT-PCR for cases seeking medical care up to the fifth day following the beginning of the symptoms.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

None

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

None

Discretionary Revisions (which the author can choose to ignore)

The authors should also discuss the fact their study lacks a second sample that could confirm the diagnosis, and that they have used "more specific tests" not completely validated in most areas of the world. These facts could be the explanations for the low PPV found in their study.

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.