Reviewer's report

Title: Sentinel surveillance for human enterovirus 71 in Sarawak, Malaysia: Lessons from the first 7 years.

Version: 1 Date: 4 April 2006

Reviewer: Mark Pallansch

Reviewer's report:

General

This manuscript describes the establishment of a sentinel site surveillance system for hand, foot and mouth disease (HFMD) and enterovirus 71 (EV71) in Sarawak, Malaysia and the results from the first 7 years of collection. The manuscript is clear and well organized.

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

Since fever can be a more frequent presentation in younger children than older with the same infection, does the CA10 difference in fever (Table 4) remain if the children are stratified by age, seeing that the CA10 children tend to be younger (Table 3)? If not, then Table 4 can be deleted and the observation noted in the text.

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

The enrollment criteria seem to be fairly broad and include mild disease. Is there any way to address the issue of self-referral of mild disease changing over time such that the ratio of mild to severe disease was not the same later in the period? In other words, would the data in Table 4 vary by year for each agent (ignoring the absent years)?

The use of a single cell culture line has the potential to introduce an observational bias to the other enterovirus data, particularly with regard to viruses that do not grow well in RD cells. Even though this is not likely to affect the EV71 results, it could change the proportions of the other serotypes. This should be mentioned as a limitation of the surveillance system as it relates to other potential causes of HFMD cases.

Table 3 would be more informative if also included lines for all other EV and a line for the negatives for comparison.

Even though data are presented for sites S1 and S2 showing high proportion of cases with at least one specimen tested, it is not clear whether the rate of specimen testing changed during the study period (specimens tested/child over time). In particular, was the rate different in epidemic years versus the intervening years?

Even though the system changed somewhat during the period with regard to specimen collection, the rationale for the changes seems reasonable. It would be more helpful to examine the effect if Table 2 could have the data split by period since the change seems to have happened in 2000 in conjunction with the outbreak. The issue is whether there was a difference in specimen specific
isolation rates before and after the change in specimen collection as well as documenting the degree of specimen distribution change.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests