Reviewer's report

Title: Perceived morbidity and community burden after a Chikungunya outbreak: the TELECHIK survey, a population-based cohort study

Version: 1 Date: 1 September 2010

Reviewer: Scott C Weaver

Reviewer's report:

This paper by Gérardin et al. describes a retrospective telephone survey of a large cohort of La Reunion residents sampled after the apparent end of the chikungunya epidemic. Chikungunya antibody-positive and –negative people were compared for a number of chronic manifestations, and statistical analyses indicated that 33% of joint pains, 10% of cerebral disorders and 7.5% of sensorineural impairments could be attributed to chikungunya virus infection. This is an important study documenting more rigorously than ever before the persistent symptoms due to an important, re-emerging arboviral disease. Although I am not an expert on the epidemiological statistics, the analyses appear to be thorough and the results robust.

Major Compulsory Revisions

1. An important topic that deserves some discussion is whether the 2004-present CHIK outbreak shows any evidence for a change in virulence over Asian outbreaks from the 1950s until 2004.

2. Line 112: The phrase “adaptive property to the human host” suggests that the vector had recently adapted to feed on humans, but the reference describes virus adaptation to the vector. If the latter is intended, then Tsetsarkin et al., who demonstrated more conclusively through reverse genetics this adaptation, should also be cited.

3. Line 175: A recent recrudescence in chikungunya infections has been reported in La Reunion. If there any possibility that infections occurred between the serosurveys and this telephone survey?

Minor Essential Revisions

4. Throughout: chikungunya should not be capitalized

5. The manuscript should be read carefully by a person with strong English skills to correct minor grammatical errors and occasional, subtle inappropriate word selections.

6. Line 172: What accounts for the unequal distribution of subjects by sex?

7. Discussion: How do the levels of the symptoms surveyed compare between La Reunion and other communities of similar socioeconomic conditions that did not suffer a chikungunya outbreak? Are there any comparable data from other locations?
Which journal?: Appropriate or potentially appropriate for BMC Medicine: an exceptionally interesting article

What next?: Accept for publication in BMC Medicine after minor essential revisions

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests