Reviewer’s report

Title: Identification of Congenital Rubella Syndrome in Sudan

Version: 1 Date: 29 January 2014

Reviewer: Pat Tookey

Reviewer’s report:

Thank you for the opportunity to read this paper.

Congenital rubella remains an important cause of death and disability in many parts of the world, including many countries in Africa. Ascertaining the burden of infection in Sudan in order to inform vaccine strategy and policy is extremely valuable, particularly in the context of the high seronegativity rate reported in ref 9. However, I think the study methods need some clarification, both with respect to the study population and the laboratory algorithm and methods.

Major Compulsory Revisions

1. It is unclear how the 98 infants studied were recruited and how representative they were of infants with clinically confirmed or suspected congenital infection in the hospitals selected. Was case classification according to the WHO guidelines carried out according to a specific protocols in each hospital, and how many hospitals were involved? Did many parents decline?

2. Could you clarify the algorithm for the laboratory tests carried out on the OF and DBS samples? How many samples were available for each test? Are you sure that the sensitivity and specificity of the tests was the same in your lab as in ref 21. Can you provide more information about the sensitivity and specificity of the tests?

3. You do comment on the limitations of your study, and on the possibility that testing for other pathogens could be helpful. But isn’t it surprising that so few cases were laboratory confirmed, especially among those with confirmed CRS according to the WHO clinical criteria? Could you comment further on this?

Discretionary revisions

4. Information on the distribution of defects and age at presentation in the 24% clinically confirmed and 76% clinically suspected would be informative. Maybe a table? Would these infants have had investigations for hearing loss since they were being considered as possible CRS cases?

Level of interest: An article of importance in its field

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