Reviewer’s report

Title: Identification of Congenital Rubella Syndrome in Sudan

Version: 2
Date: 24 March 2014
Reviewer: Pat Tookey

Reviewer’s report:

Thank you for responding to my earlier comments. However, I still feel the study methods are unclear, as is the relationship between the study group and the general population. I would also like to see further in

Author response to my comment 1.

You state that the 98 infants were identified by qualified physicians, and that at the five hospitals all infants matching the inclusion criteria and presenting in the 7 month period were included. But it is still unclear what the inclusion/exclusion criteria were, and how the 'qualified physicians' determined whether or not infants were eligible. The issue is not so much who was included, but who was not. Were all infants with congenital eye and/or heart defects included? Did the physicians identify the cases on the basis of routinely reported admissions data, in-patient data, or discharge summaries? You do address this partially in your response to Comment 5 from the other reviewer, but it's unclear whether the 'birth defect logs' you mention were only for the paediatric hospitals. Were patients classified according to WHO case definitions before being enrolled in the study (meaning that was the inclusion criteria), or after? You do provide some information in the response to reviewers about the population and the study hospitals, but more of this could be included in the paper itself for the benefit of all readers.

Thank you for providing further information on the lab tests.

With reference to the study limitations (my previous comment 3).

Another potential explanation for the low numbers identified is that rubella is not only seasonal but also has an epidemic cycle (generally 5 or 6 years). So it could be that because infants were all identified in the short time span Feb-Sept 2010, therefore born 2009-2010, this was not a birth cohort which had been exposed to much circulating rubella. Is there any other data which might cast light on this? If not, would you consider this to be another potential limitation of the study?

My previous comment 4.

Thank you for providing further information on the presenting symptoms. It's a shame that there is no Information on hearing loss in these children - are they going to be reviewed at an older age to establish the proportion with hearing loss? It is still unclear from your response how many of the 24 children with clinically confirmed CRS had both eye and heart defects. You indicate that 20
had eye and 11 heart defects, so was it 7 with both? If so, 2 of the 7 appeared in your 7 confirmed/potential cases, compared with 5/91 with single defects. Would it be worth commenting on this?

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