Reviewer's report

Title: Pregnant women at risk of primary infection with rubella virus in Burkina Faso

Version: 2 Date: 23 January 2013

Reviewer: Andreas Sauerbrei

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Comments:
In this manuscript, Tahita et al. describe the seroprevalence of rubella virus in pregnant women from Burkina Faso. The results reveal a high overall prevalence of IgG antibodies to rubella virus in spite of the absence of universal rubella vaccination. The authors suggest a continuous transmission of rubella virus in Burkina Faso resulting in rubella infections in non-immune pregnant women. In addition, the authors speculate that the number of CRS cases is potentially quite high without there being any data on the incidence of CRS in Burkina Faso.

Major compulsory revisions:
1. The statistical evaluation of the results is insufficient. The 95% confidence intervals have to be added to the number of positives given in per cent. This is necessary to indicate the reliability of the estimates.
2. Results, lines 2-4: It is described in this sentence that the seropositivity was 100% among the 40-42 year olds (see Table 1). Additionally, the differences in seropositivity to other age groups were calculated statistically. However, a very low number of only 6 pregnant women was included in this age group. The statistical reliability of these statements is not acceptable.

Minor essential revisions:
1. Page 3, Methods, lines 4-6: It should be added to the text which data were included in the questionnaire.
2. Page 4, paragraph 1: Were the samples tested twice as is usual in seroprevalence studies? Were the ELISAs performed manually or automatically? The authors state that “all equivocal samples were retested”. What was done in case of different results after retesting? Furthermore, the authors have to explain on what basis antibody titers #10 IU/ml were considered protective against rubella.
3. Table 1: To provide a better understanding, the total numbers of each row and column should be inserted.
4. References: The authors have to pay special attention to the correct spelling of the journal titles.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.