Reviewer’s report

Title: A cohort study to evaluate persistence of hepatitis b immunogenicity after administration of hexavalent vaccines.

Version: 1 Date: 7 March 2008

Reviewer: Elizabeth Boxall

Reviewer’s report:

The results presented in this paper are very convincing and show a distinctly poorer persistence of antiHBs in children vaccinated with Hexavac over those vaccinated with Infanirx Hexa. The size of the cohorts studied were sufficiently large and the confidence intervals surrounding the antibody titres indicate a clear difference between the 2 vaccines, as does the geometric mean titre of the persisting antibody. The booster study showed that some children given Hexavac had failed to produce immunological memory in response to the primary. (i.e. may be primary vaccine failures as there were no follow up samples taken after the primary course),

The antibody titres in 3year old children show a clear difference between the 2 vaccines.

This is very important data for those countries that use multivalent vaccines in infants and questions the strategy of vaccinating babies in low endemicity countries where vaccination of adolescents would get around the problem raised by this paper.

Specific comments to be addressed by the authors.

10miu/ml – is generally taken to be consistent with a specific immune response to the vaccine as – antiHBs values <10miu/ml can be observed in the sera of non-immunised and non-immune subjects. Therefore the description of quantitative titres less than 10miu/ml is not appropriate. There fore it would be better for table 2, to combine the first 2 categories of antibody level (<1 and 1-9.99) into <10miu/ml. This would not diminish the quality of the data, but would make it clearer and more precise and would be similar to table 3.

Perhaps the authors could review the strategy of immunisation of infants as they have expressed serious concerns about the persistence of antibody into adolescence and adulthood, which is when the risk of infection becomes significant.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable
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