Reviewer's report

Title: The seroprevalence of anti-hepatitis E virus (HEV) in a Korean population: comparison of two commercial anti-HEV assays

Version: 2 Date: 28 March 2012

Reviewer: Rodney Hoff

Reviewer's report:

This is an important study on the sero-prevalence of antibody to Hepatitis E (HEV) in people undergoing health check examinations in Seoul, Korea. The study is important because little is known about epidemiology of HEV in South Korea where few clinical cases of HEV have been described. This well-designed study provides a comparison of the age-adjusted estimates of HEV seroprevalence in this representative population using the two different HEV antibody assays. With both assays the seroprevalence rate of HEV antibody increased with age, and males had greater rates than females, although this difference was not statistically significant. The study showed a disappointing low concordance (K = 0.315) between the two commercial EIA HEV antibody assays. Such differences could be due to inherent insensitivity of one of the assay or to a genotypic mismatch of the assay antigen and the genotypes of HEV in Korea, which points to the need for research to resolve such questions.

I have only a three minor suggestions for improving the manuscript.

1. The paper should describe how the study sample of 147 sera was selected from the population of 484 health-check examinees seen during the study period from June 2006 to September 2006.
2. The paper should include the confidence intervals for the estimated age-adjusted sero-prevalence rates that were obtained with each antibody test kit.
3. Table 2 could be improved by displaying the data in a standard 4 X 4 concordance table and avoiding the “Group I-IV designations, and also putting the concordance statistics as a footnote to the table.

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