Reviewer's report

Title: Chlamydia trachomatis Incidence and Prevalence Trends in Finland 1983-2003

Version: 1 Date: 13 August 2008

Reviewer: John Papp

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Major Compulsory Revisions

The serologic data and laboratory notification data should be aligned according to the age strata in the later data set (i.e. ages 15-19, 20-24 and 25-29). Presenting the serologic data in 2 groups that overlaps the laboratory notification data limits meaningful interpretation and comparisons. In depth analysis on the number of seropositive patients at baseline that became seronegative at follow-up and a comparison of serologic status to the presence or absence of a laboratory confirmed infection with C. trachomatis would greatly enhance the manuscript.

The second sentence in the fifth paragraph of the Discussion needs to be qualified by a reference or deleted. I am unaware of any molecular epidemiologic studies that have demonstrated a change in serotype (or genotype) distribution as a consequence of improved diagnosis or treatment. Similarly, what evidence is available to suggest that some strains are 'less immunogenic' in humans and that these may become predominant in settings with well established screening programs? Would 'less immunogenic' strains be less pathogenic?

More information needs to be presented regarding the comment that measuring the effectiveness of a screening program requires serologic and PCR data (sixth sentence in the fifth paragraph of the Discussion). This would need a better understanding on systemic humerol immune responses to this mucosal pathogen. There have been several scientific investigations into the correlation between immunologic markers, infection and disease without a single definitive marker being identified.

Minor Essential Revisions

Figure 1a is incorrectly labeled Figure 1.

Figure 1b is incorrectly labeled Figure 2.

Figure 2 is incorrectly labeled Figure 3.

There is a spelling error in the second sentence of the “Conclusion’ section.

It’s not clear whether the laboratory notifications for C. trachomatis measure incident or prevalent infections (‘C. trachomatis incidence rates based on
laboratory notifications’ section of the ‘Results’).

Discretionary Revisions

The change in laboratory test technology over the same time period may be helpful in understanding the trends.

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.