Reviewer’s report

Title: T-cell-based diagnosis of tuberculosis infection in children in Lithuania: a country of high incidence despite high bacille Calmette-Guerin vaccination coverage

Version: 1  Date: 9 January 2009

Reviewer: Claudio Fortis

Reviewer’s report:

Major Compulsory Revisions

Methods

1) page 4, lines 8-9: the range of age should be reported also for both “high” and “low risk for TB” groups.

2) Page 5: Determination of specific-IFN-g secreting T-cells – The individual spots were counted with an automated system or how?

3) Page 6: Statistical analysis is inadequate; agreement between different immunological tests (TST and T SPOT TB) should be assessed by estimating Cohen’s Kappa statistic. Kendall’s correlation test reported at page 7 is not here mentioned. Moreover, the authors write that “comparisons between numbers of spots in T SPOT TB test and TST diameters of induration”, but these data have not been reported in any part of the manuscript. These data should be reported in a separate figure.

Results and Discussion

5) Table 1 and figure 1: the comparison of the number of spots among the three groups of children was performed considering all the T SPOT TB results, whereas should be performed considering only positive T SPOT TB results.

6) Page 7, lines 21-22, and page 10, lines 14-16: because in the “culture-confirmed TB” group all TST positive children were also T SPOT TB positives, I do not understand what means that “a significant correlation between TST and T SPOT TB” was observed when TST ≥15 mm

7) For each group, should be interesting to report in a separate figure box-and-whisker plot of TST induration (in mm) in relation to positive and negative T SPOT TB responses.

8) Page 8, lines 2-3: it is not clear whether, after 8 weeks of therapy, some positive T SPOT TB results reverted.

9) Page 8, lines 3-4, and page 10, last line- page 11, first line: the sentence “results of T SPOT TB in 3 children were still positive because of multidrug-resistant TB form” may not be proved and should be eliminated.

Level of interest: An article of importance in its field
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