Reviewer's report

Title: Identification and characterization of the bacterial etiology of clinically problematic acute otitis media after Tympanocentesis or spontaneous otorrhea in German children

Version: 2 Date: 3 August 2012

Reviewer: Anne Vergison

Reviewer's report:

This version of the ms has been greatly improved. Almost all issues which were unclear in the past version were given a satisfactory answer and the ms was modified accordingly.

Particularly the important issue of pre-analytical handling of microbiology samples is now more explicitly described. However

(1) Discretionary revision:

it would be worth mentioning in the method section which swabs containing Amies transport medium were used, providing the reference, as very different recovery performances are described in the literature according to the swab type, particularly for fastidious bacteria. Also it would have been of interest to know how many swabs were received after more than 24 hours among the culture negative and positive ones, as this may also influence fastidious bacteria recovery rate very much.

(2) Minor essential revision:

Finally, consistent with the microbiological limitations of the study, the authors should mention in the discussion that the long time delay before samples processing and the freezing of samples initially might have influenced not only the number of positive cultures, but also have introduced a bias toward a differential recovery of the more resistant organisms. S. aureus and S. pyogenes are well known to overgrow other organisms on swabs when processing delay increases and both S. pneumoniae and NTHi are fastidious organisms, S. pneumoniae being the most likely to die after 6 hours and in case of freezing of the swab.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
Yes, I have participated to advisory boards and received speaker fees from GSK and Pfizer, both companies producing a pneumococcal vaccine.