Reviewer's report

Title: Macrolide resistance determinants in Streptococcus pneumoniae isolates from carriers in Central Greece, 2005-2009

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Reviewer: Paul Tulkens

Reviewer's report:

General statement

This is a quite interesting paper and the authors need to be commended for this useful and well conducted work.

An interesting feature in this work is the high prevalence of isolates with the combination of a methylase AD efflux resistance mechanism. This is quite surprising as it would put Greece somewhat apart from most other EU countries. Can this be more carefully and definitely be documented (see my remark 2 hereunder)?

Major compulsory revisions

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1. Greece is part of Europe and European breakpoints (EUCAST breakpoints: http://www.eucast.org) are now those used in most EU countries, and more importantly, perhaps, used for interpretation of susceptibility testing by the European Centre for Disease Control (e-CDC) and for comparing resistance levels in Europe. I'd therefore suggest the authors to reassess their data based on these breakpoints (they could, usefully, provide interpretation according to both CLSI and EUCAST, which will add value to the discussion).

2. I was quite interested by the high prevalence of strains with dual mechanism of resistance to macrolides (methylase and efflux). Did the authors have the opportunity to test their isolates with telithromycin. This would be quite interesting.

3. Likewise, the lack of significant resistance to fluoroquinolones is also interesting and challenging. As ciprofloxacin is clearly not indicated for pneumococcal infection, and since levofloxacin may also be questioned in this context, did the authors have a chance to look at the susceptibility of their isolates to moxifloxacin (typical MICs should be < 0.5 mg/L)?

4. The paper is quite long for its true content. I'd suggest careful pruning of the Introduction (it could be reduced to about 60%) and of the Discussion (which should be more critical).

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 have received research grants and lecture fees from Sanofi-Aventis, GSK, Bayer, Cempra Pharmaceuticals, and Rib-X Therapeutics.

I am member of the Belgian Antibiotic Policy Coordination Committee.