Reviewer’s report

Title: Gonorrhoea epidemiology, antimicrobial susceptibility/resistance and genetic characteristics of Neisseria gonorrhoeae isolates from Poland, 2010-2012

Version: 1 Date: 9 January 2014

Reviewer: David Whiley

Reviewer’s report:

General comments:
Emerging antimicrobial resistance in Neisseria gonorrhoeae is a major global problem. The data presented here are important given that there is currently limited resistance data from Poland, and that the results suggest that current therapies being used to treat NG in Poland may not be appropriate. Overall the methods used are appropriate and the results are interesting. I have several comments that may serve to improve the article.

- The article is unnecessarily long. The data are actually very similar to data reported elsewhere (ie. in other countries). Also, the key data for this study are nicely summarised/presented in Tables 1, 2 and 3. Hence there is no need for the considerable repetition of the data in the text of the results and discussion. For these reasons the authors should omit unnecessary text from the abstract, background, results and discussion to make the article more concise.

- There are a number of grammatical errors throughout the manuscript.

- It is not sufficiently clear to me that the ‘epidemiology’ data are truly results of the current study, as it appears that all of these data are previously publically available. If so, such data belong in the introduction and not in the methods/results sections. The authors need to clarify this.

Abstract:
- As suggested above, the abstract is too long and could be more concise.
- The abstract focuses on individual resistance only. It would be useful to also mention any multi-drug resistance.
- The last sentence could be more focused.

Background:
- The last 2 paragraphs of the background provide a nice introduction to the article. However the first 3 paragraphs of the background are well described elsewhere, and so could easily be condensed into one paragraph.
- 4th paragraph, sentence beginning “A substantial part”; may be more suitable to state “a substantial proportion”.

Results:
- The gentamicin MICs from Table 1 should be broken down into numbers (and %) of isolates in the same way as the other antibiotics.

- Paragraph beginning “In the entire material”: all this genetic information should be added to Table 3 so that an interested reader can more readily appreciate the association between AMR profiles and mechanisms. In fact, Tables 2 and 3 could easily be merged to provide a more complete picture of the results.

- The authors state that the “The proportion of isolates of the most prevalent ST1407 rapidly increased over the few years investigated...”. Was this statistically significant?

Discussion:

- The authors state that the “the reported incidences of gonorrhoea in Poland ... have been substantially lower than in neighbouring countries/regions...” Is this statistically significant?

- A reference would be useful to support the statement that “....the latter is still recommended for treatment by the former Institute of Venereology in Poland”

- The last sentence beginning “Internationally, despite implementation...” should be deleted.

- The authors mention that the low infection rates may be due to poor diagnosis. Could the authors provide further explanation of this point?

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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