Reviewer’s report

Title: Prevalence of Chlamydia trachomatis and Neisseria gonorrhoeae infection in adolescents in Italy: an observational school-based study

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Reviewer: Massimo GIULIANI

Reviewer’s report:

Prevalence of Chlamydia trachomatis and Neisseria Gonorrhoeae infection in adolescent in Italy: an observational school-based study (by Matteelli A et al.)

The manuscript is based on detailed data from a cross sectional study conducted in a large population of school-based adolescents. The study was performed to assess prevalence rates of C. trachomatis and N. gonorrhoeae infection. The prevalence rates were measured using NAATs methodology on urine samples from participants.

The manuscript describes also risk factors for the infections among the young sex-active population. The results reveal that the prevalence of CT infection is low and that NG don’t have a measurable circulation. As such, this is an important study including original data from a large population hard-to-reach in clinical facilities. It is an good example of collaboration between school authorities and STI specialists to evaluate the risk of STI among adolescents. Considering the originality of data at local level and the advantage to compare the findings with those collected in other European countries, it is important that these results were published.

In general, the manuscript is well structured and different sections are well balanced. The methodology was adequate to assure reliable data. Results are clearly presented, sound and detailed enough. The manuscript is fluently written and does not require of a further English language editing.

However, some Major Compulsory Revisions are needed before to consider the manuscript validated to the publication. I would suggest the following changes and clarifications:

1) Methods: Please elaborate more on the collection of urine samples. In the Methods section the place of urine collection is not well described. The authors stated that the urine sample is returned by participant to investigators with the questionnaire (line 122), but the self-collection where was conducted? At home, at school or where else? This is an important information to confirm the reliability of results.

2) Results: The participation rate of the study was 62.8%. Have the authors any information about the reasons for refusal to participate in the 37.2% of eligible students. In other words, the authors are confident that the STI risk was equally distributed among the participated and the declined students. This fact should be
better defined before the data presentation and argued also in the Discussion section.

3) The authors declared that the recruitment of students was conducted in public and private schools (line 99). This fact may have introduced a factor of difference in the social status of the study participants and contributed to modify the overall risk. It may be useful to verify if there are differences in the prevalence of CT among students enrolled in public schools with respect to those enrolled in private schools. This potential bias should be managed in the Results section and discussed also in the Discussion by the authors.

4) Discussion: The Discussion is entirely centred on the CT infection results. According to the title of the manuscript and the objectives of the study, the authors should also discuss, maybe faster, the relevant result about the non-circulation of the NG in the young investigated population.

Minor Essential Revisions

- Title: (Line 2) The specific geographical source of data should be pointed out in the Title. I suggest to change words “in Italy” with “in Northern Italy”. To assure the change also in the other section of the text (i.e., line 44).
- Abstract: (lines 43-44) The Conclusion was pointed out only on the CT results. Also the NG result deserved to be added. (line 73) The word “prospective” is incorrect. To change with “cross-sectional”.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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 not competing interests in relation to the contents of manuscript.