Author’s response to reviews

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

Authors:

Alberto Matteelli (alberto.matteelli@unibs.it)
Michela Capelli (michela.capelli84@gmail.com)
Giorgia Sulis (g.sulis@unibs.it)
Giuseppe Toninelli (giuseppe.toninelli@gmail.com)
Anna CC Carvalho (a.carvalho@libero.it)
Sergio Pecorelli (sergio.pecorelli@unibs.it)
Arnarlo Caruso (arnaldo.caruso@unibs.it)
Carlo Bonfanti (carlo.bonfanti@unibs.it)
Franco Gargiulo (franco.gargiulo@spedalicivili.brescia.it)
Francesco Donato (francesco.donato@unibs.it)

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Author’s response to reviews: see over
Prevalence of Chlamydia trachomatis and Neisseria gonorrhoeae infection in adolescents in Italy: an observational school-based study.

Point-by-point response to reviewer’s comments

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.

We have elaborated the sentence as suggested by the reviewer. At line 123-126 now the sentence reads: “On the morning following the educational intervention, all adolescents who accepted to participate in the survey self-collected at home two millilitres of first-void urine into the urine transport medium (UTK) (Siemens Healthcare Diagnostics Inc., Tarrytown, NY). Tubes were handled-out to the research team within two hours from collection.”

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.

We agree with the reviewer on the importance of data on the reasons for refusal to adhere to the survey, however, this information was not collected. We have no data concerning the 1624 students who did not return either the signed consent to participate in the study, or the questionnaire and the urine sample. We have included this issue among the limitation of the study (line 277)

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.

Thirty public schools contributed to the survey with 2614 adolescents, and four private schools contributed with 104 adolescents. The prevalence of CT among students in public and private schools was 1.72% (34/1976 sexually active students) and 2.41% (2/83 sexually active students) respectively (p=0.6).

We have provided more information on this issue in the text in line 176 and lines 201-202.

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.

We agree with the reviewer and have added a sentence (line 280 – 284) as follows: “We aimed at measuring the prevalence of gonorrhoea as well, but this was not possible since no case of infection was detected. Gonorrhoea is the second sexually transmitted infection in the European Union in terms of notifications (47,387 cases, with an incidence rate of 15.3 cases / 100,000 inhabitants) [1]. Our results suggest limited circulation of the bacterium among the adolescent population included in the survey.”
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).
  We have changed the title and elsewhere in the manuscript where appropriate, as suggested by the reviewer

- Abstract: (lines 43-44) The Conclusion was pointed out only on the CT results. Also the NG result deserved to be added.
  We agree with the reviewer. The following sentence has been added in the abstract (line 45): “No cases of *N.gonorrhoeae* infection were identified”

(line 73) The word “prospective” is incorrect. To change with “cross-sectional”.
  The text has been changed according to the suggestion