Reviewer’s report

Title: Legionella spp. in Southeastern Italy: surveillance and epidemiology

Version: 1 Date: 15 February 2010

Reviewer: Varvara Mouktouri

Reviewer’s report:

This paper analyses the results of a large number of environmental samples and compares these results with epidemiological data and risk analysis results. However, the methods are not appropriately described and the results are not understandable and can be better and more clearly presented. The title and abstract are needed to be expressed more accurately. The manuscript needs to be reviewed by a native English speaker.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The manuscript should be reviewed by a native English speaker.

Background


Line 78: Authors should define what “surveillance of sanitary events” is.

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

The title of the paper should be more descriptive and indicate the types of buildings and water facilities.

Abstract

Lines 26, 27: authors should describe better what surveillance included. For example: surveillance of legionellosis and environmental surveillance of Legionella spp. in water facilities? In addition, what clinical monitoring means.

Methods should be better explained: from where the samples were taken (hotels, hospitals, homes, other buildings)? What was the sampling procedure, where the samples were analysed? What case definitions were used for surveillance, who reported the cases?

Results do not give any numerical data, but a general statement.

In conclusions, risk analysis results are mentioned, but the methods and results
do not give any information on what is “negative risk analysis”. Methods and results do not indicate anything about clinical diagnosis criteria.

Methods
Methods section can be divided into the following subsections: Environmental sampling, Microbiological examination, risk analysis etc.

Lines 91-92: the number of health care facilities should be included. The types (e.g. hotels, homes etc) and numbers of community facilities should also be included. The number of samples collected of each type of facility should be defined, as well as the water system type (water distribution system, pool, spa, etc.).

The sentence in line 92-93 “the microbiological investigation was always conducted together with a risk analysis” should be elaborated more: for example, environmental sampling was always conducted together with a risk analysis”. The sampling should be described separately in a subsection. The risk analysis procedure and criteria should be described separately in a subsection of methods. What means positive and negative risk analysis should be defined. The laboratories that conducted the microbiological analysis should be mentioned in the manuscript, as well as who conducted the sampling and the risk analysis.

Results
Lines 129-137: Results described in the first paragraph should be converted in a table format in order to include the denominators. How many samples were obtained from each facility? The percentage 34.6% and the percentages in the following sentence refer to the number of samples or the number of facilities? What types of facilities were these (water distribution systems, spas)?

Lines 138-148: Please refer to the previous comments.

Discussion
Line 175-176: it is not clear if the percentages 12.5% and 21% represent numbers of buildings or samples. In the results section it is mentioned that 21% is the number of samples, while in the discussion that 21% is number of community buildings. Results of this study and level of contamination can be compared with other parts of Italy or with other countries findings.

Lines 187-189: There is no description in the methods section or results about the efficacy of disinfection method, or the type of disinfection method used. If authors do such a statement about the efficacy of method, they should define the disinfection method, how it was evaluated and how and when the periodical risk assessment was conducted. The role and importance of trained parsons in risk analysis and sampling can also be discussed.

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

Quality of written English: Not suitable for publication unless extensively edited
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'