Reviewer's report

Title: Legionella on board trains: effectiveness of environmental surveillance and decontamination.

Version: 1 Date: 21 February 2012

Reviewer: cyril guyard

Reviewer's report:

1. Is the question posed by the authors well defined?
Yes, the authors performed a Legionella surveillance study in trains’ water systems to identify if they represent a potential source of infection.

In the introduction section, I would recommend adding the main identified sources of infection for the 281 TALD cases reported in Italy in 2009 (page 2, 2nd paragraph). If environmental sources of some of these TALD could not be identified it may suggest that additional sources remain to be identified.

2. Are the methods appropriate and well described?
Yes.

Minor comments:
- The final volume of the concentrated samples is not indicated on page 3.
- Authors should also indicate if the Falcon tubes used to vortex membrane filters contained a buffer. As it is written it seems that the Falcon tubes were empty.

3. Are the data sound?
Yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?

In the discussion section, authors indicated: “this study suggests that the resistance to Chlorination of Lp1 could be due to biofilm....”. This sentence should be modified as it suggests that the study addresses the biofilm formation in trains’ water systems when it only shows resistance to chlorination.

6. Are limitations of the work clearly stated?
Overall the limitations of the work are clearly stated. I would only recommend adding the absence of clinical surveillance data linked to the study. Were there reported cases that could be potentially be linked to the environmental survey described in the manuscript?
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   yes
8. Do the title and abstract accurately convey what has been found?
   The title accurately conveys what has been found.
   An abstract was not provided with this manuscript: for this reason, I am unable to decide on acceptance or rejection.
9. Is the writing acceptable?
   yes

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**
I declare that I have no competing interests