Reviewer's report

**Title:** An investigation of nurses' knowledge, attitudes and practices regarding disinfection procedures in Italy

**Version:** 2  **Date:** 6 December 2010

**Reviewer:** Raphaële GIRARD

**Reviewer's report:**

This study is very pertinent and useful to the infection control organization, but a large number of information should be precised.

Major Compulsory Revisions

The introduction and the hypothesis of the authors is that

- health care associated infections are the most frequent complications in hospitals
- urinary tract infection and SSI are the most common NI.

But this hypothesis is perhaps seems not exact, accordingly to the Italian NI studies and recent French report on hospitals accidents (http://www.sante-jeunesse-sports.gouv.fr/IMG/pdf/article201017.pdf): NI frequency is lower than pharmaceutical accidents and the most frequent NI is national Italian prevalence study are UTI and respiratory.


This hypothesis could be responsible of a bias in analysis of response of the knowledge of HCW on the most commons NI and on Model 1. It seems logical than HCW for the surgicals wards assume than SSI are more frequent than respiratory infections.

The analysis includ a very large number of tests. It is necessary than the authors precise how theyy are taking into account this large number. A significant p value of 0.05, with two sided tests seems not very correct. The choice of the different level of p values (for inclusion in multivariate analysis and for enter and remain of the multivariate models ) in not classical and it should be explained.

The instruction of interviewers is not include in the paper. So it seems necessary to give a most precise definition of asking. For example, the B2-6 point is translated as "hands should be washed with antiseptic solution". Are antiseptic hand washing and antiseptic hand rubbing included in the defintion? It seems
possible, accordingly to the data about hand disinfection during care, but it should be precised.

Minor essential Revisions

The firts paragraph of Methos includes a contradiction; hospitals are randomly selected in the beginning and they agreed to participate later?

The tables are not complete and it is necessary to give all precision to can use it alone.

All percentage or p shoul be gived with the same number of decimal data.

In table 1, it could be usefull to add the means number of NI cheked (B1). Are the other NI checked or never? In the title, the number of HCW could be precised.

In table 2, it is necessary to specify the type of ward in relation with an icreasing frequency of good knowledge, the type of professionnal role, the gender....

Discretionay revision

Tables shoul be revised, they are not very clear

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'