Reviewer's report

Title: Hygienic safety of reusable tap water filters (Germlyser(R)) with operating time of 4 respectively 8 weeks in a haematological oncology transplantation unit

Version: 1 Date: 30 March 2007
Reviewer: Ralf-Peter Vonberg

Reviewer's report:

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

- Methods: Why did the authors test 3 different types of tap water filters? That should be explained.

- Results: The last paragraph of the result's section sounds like the results of these different filter types were combined in figures 1, 2, and 3. Why did the authors pool that data?

- Results: Were there differences in the quality of water due to nano silver coating and/or a silver outlet? Do the authors recommend the same usage interval for all filters regardless of the type of the filter?

- Discussion: The authors showed that automatic reprocessing was superior to manual reprocessing. However, chalky spots of splash water on the outer filter body were noticed and disinfection by wiping was performed weekly. How do the authors judge the role of retrograde contamination during use in their trial? Were the medical and cleaning personnel on the ward familiar with the use of water filters?

- Discussion: The time frame of the experiments was 31 weeks. How do the authors know that filters are usable over a two year time period when reprocessed in a washer disinfector?

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

- Abstract: More detailed information should be given, e.g. 1) there were different filter types tested in various trials, 2) manual reprocessing showed to be insufficient in trial #1, 3) There were at least 3 samples in trial #3 and 5 samples in trial #4 exceeded 100 cfu/ml.

- Page 7 – Results of trial #1: “…in one filter we differentiated x prominent slimy colonies …” How many is “x”?

Discretionary Revisions (which the author can choose to ignore)

- The number of the corresponding trial is mentioned in the legend of table 2 – it might be helpful to add that information to the legends of the tables 3 and 4 as well.

- For an international readership, reference #20 needs to be translated in English.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

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 that I have no competing interests