

Reviewer's report

Title: Reduction of Clostridium Difficile and vancomycin-resistant Enterococcus contamination of environmental surfaces after an intervention to improve cleaning methods

Version: 1 **Date:** 12 February 2007

Reviewer: Mary K. Hayden

Reviewer's report:

General

This is a well-written before-after study that evaluates a simple cleaning intervention and its effect on VRE and C. difficile contamination of environmental surfaces. The importance of an environmental reservoir in the transmission of nosocomial pathogens is an area of increasing interest to infection control practitioners, and the manuscript adds to this knowledge. The manuscript would be improved by clarification of several details, as suggested below.

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

None

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

Minor Essential Revisions

1. The authors appear to have inadvertently omitted a word in the Results section of the abstract (p. 2 line 19): "research staff." (?)
2. The authors list the brand name and manufacturer of the disinfectant cleaner used prior to the intervention (p. 6 par. 1). They should also state the general class of the disinfectant cleaner, e.g. a quaternary ammonium compound.
3. p. 9 par. 2 and Figure 1. The authors report the percentage of rooms with a positive culture, but they do not report the total number of cultures obtained. This number, and perhaps one or more of the mean, median and range of numbers of cultures obtained in each room should be reported.

Discretionary Revisions (which the author can choose to ignore)

1. The authors conducted a 6-week intervention followed by 4 months (10 weeks) of follow up. Only the 6-week period is mentioned in the Abstract, which upon superficial reading may mislead the reader into believing that the study was shorter than it was. The authors should consider mentioning the 4 month follow-up in the Abstract.
2. p. 6, par. 3. The authors state that surfaces were wiped with a cloth soaked in 10% bleach and sprayed with bleach. Was each surface wiped and sprayed? If so, why was duplicate disinfection done?
3. p. 6, par. 3. Was the same spot swabbed for culture, then disinfected with bleach, then cultured again? If so, the initial swab culturing may have removed residual bacteria, so that the surface was actually clean (no bacteria present) prior to bleaching. Please comment/clarify.
4. p. 9, par. 3 and Figure 1. The authors report that they recovered twice as many VRE and C. difficile colonies by broth culture than by direct plating. In Figure 1 and in the Results section, are the reported

results those of broth culture or direct plating?

What next?: Accept after minor essential 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.