Reviewer’s report

Title: Paradoxical bacteremia incidences among selective digestive decontamination studies versus other studies of mechanically ventilated patients.

Version: 2

Date: 12 November 2014

Reviewer: Ilias Siempos

Reviewer’s report:

Dr Hurley reports a well-performed study on the paradoxical incidences of bacteremia among trials of selective digestive decontamination (SDD). He found that incidences of bacteremia among trials of SDD were higher than incidences of bacteremia among trials exploring non-antibiotic preventive strategies against pneumonia or among observational studies. He concluded that this finding may indicate an infection hazard associated with SDD (specifically with the topical antibiotics used for SDD). The current study is part of the consistent research of Dr Hurley on the paradoxical incidences of nosocomial infections among SDD studies.

I would like to suggest only a few minor essential revisions, which might enhance clarity of the Abstract.

1. Page 2, lines 27-28: The author may wish to define the term “randomized concurrent controlled trials”, which is not very common. He has done it in his Methods section (page 6, lines 119-121), but I think this should also be done in the Abstract.

2. Page 2, lines 29-30, “whether SDD actually increases pneumonia incidences in SDD-RCCT’s versus the broader ICU pneumonia evidence base remains unresolved”: It may not be clear why the author refers to pneumonia despite the fact that the subject of the current paper is bacteremia. The unresolved question seems to be “whether SDD actually increases bacteremia incidences in SDD-RCCT’s…” and that’s why this study was performed.

3. Page 2, lines 31-32: The term “the broader ICU pneumonia evidence base” may seem vague. The author may wish to define it here.

4. Page 2, line 45, Conclusion, “These paradoxical observations...”: A clear explanation of the “paradoxical observations” might be helpful. The first sentence of the Conclusion of the main text (page 14, lines 296-298) summarizes the findings in a clearer way than the corresponding sentence in the Abstract.

5. Page 2, lines 45-46, “…imply a strong contextual effect associated with the topical component of SDD...”: It would be clearer if the word “effect” was replaced by the word “hazard”. Again, the last sentences of the Conclusion of the main text (page 14, lines 301-304) seem clearer that the corresponding sentence in the Abstract.

I acknowledge that rephrasing is difficult within the word limits of an Abstract, but
I think that these revisions may be essential for clarity.

**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