Reviewer’s report

Title: Surveillance of Device Associated Infections and mortality in a major Intensive Care Unit in the Republic of Cyprus

Version: 0 Date: 30 Apr 2017

Reviewer: Yingxi Chen

Reviewer's report:

The authors conducted a prospective cohort study using survey data to estimate the incidence, mortality and infection-associated cost of DA-HAIs in one intensive care unit in the Republic of Cyprus.

Comments:

Abstract:

Line 30: While additional length of stay (ALOS) is defined in abstract, this term does not appear in the main body of manuscript. Please clarify.

Line 35: "This was the most frequent DA-HAI with 11.4 cases per 1000 CVC says." Is this an incidence? If so, please specify. Should spell out CVC upon first mention in the text.

Main text:

Page 4, line 13: Spell out CLABSIs, VAPs and CAUTIs upon first mention in the main text.

Page 4, line 20: Should include unit of every rate.

Page 4, line 27: Please spell out "UC" for the first mention.

Page 7, line 7: The authors used reported cost per HAI in the US hospitals to estimate cost of patients hospitalised in ICU in Cyprus. My major concern is the validation of those estimates, as healthcare cost is subject to local healthcare system as well as other national and institutional factors. Is it scientifically robust to do so?

Page 7, line 49: How were the relative risks estimated? Did the authors use regressions? If so, please specify. In addition, as evidence suggests that age is associated with length of stay as well as mortality, all analyses should at least adjust for age.
Page 8, Line 22: "One hundred and fifty of the 198 patients were admitted without an HAI...(Table 1)". However, according to table 1, there were 173 patients without infection, among which 151 patients without infection on admission. Please clarify the discrepancy.

Page 8, line39: Provide unit for incidence.

Page 9, line 24: "…and patients with CAUTI is twice higher than that of …" The result is not statistically significant and it is not clear how the RRs were calculated. Therefore, I'd be cautious when providing such statement.

Discussion:

The impact of reverse causality on length of stay, mortality and cost should be discussed and be included in the study limitations.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Unable to assess

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable
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