Reviewer’s report

Title: The Use of Minocyclin-Rifampin Coated Central Venous Catheters for Exchange of Catheters in the setting of Staphylococcus aureus Central line associated Bloodstream Infections.

Version: 4 Date: 2 July 2014

Reviewer: Naomi Runnegar

Reviewer’s report:

The paper describes a retrospective cohort of patients with SA-CLABSI who were managed with CVC exchange with a minocycline/rifampicin-coated CVC (because of a perceived high risk of complications from CVC removal) and compared to patients whose CVC was removed or retained. The hypothesis that M/R-CVC exchange is beneficial in this circumstance is supported by an in vitro model. The question is well defined, however cannot truly be answered by a study of this size/design however if the limitations of the study are clearly stated the information is of interest, particularly in light of the data from the in vitro model. I have the following comments:

Major Compulsory Revisions
1. Please refer to the in vitro model experiment in the Abstract.
2. The final sentence of the abstract refers to the need for future RCTs to confirm findings - this should also be stated in the body of the article.
3. Please describe how controls were identified & selected prior to matching.
4. There is insufficient data to draw conclusions regarding infection-related death and the term 'trend towards' should be removed - see lines 35, 109, 175.
5. The following limitations of the study should be acknowledged in the article: the patient population have a high background mortality rate and there is no description of or adjustment for (unlikely to be possible with a study of this size) severity of underlying illness of the patients in each group. It is also possible those patients in whom CVC was able to be removed or exchanged were less unwell/perceived to be at lower risk of complications from CVC removal than those in whom CVC was retained.

Minor Essential Revisions
6. Please use "M/R-CVC" throughout for consistency (see lines 55, 76)
7. Please reference sentence in line 148
8. Line 175 should explicitly state "CVC exchange over a guidewire" was with an M/R-CVC
9. The final sentence should be qualified with a statement such as "in selected patients (line 177)"
Discretionary Revisions

10. Table 1: It would be useful to include the number of patients aged over 60 and the number of patients with MRSA in each group as these are independent predictors of mortality in SAB. 30-day mortality would also be a useful metric to include as SAB outcome is often measured at this time point.

11. Table 1: There is an asterix after defervescence that doesn't refer to anything.

12. Line 127 the term "is often" may be too strong.

13. In the first paragraph of the abstract, numbers under ten should be written as words rather than numerals

14. Line 119: quote title accurately or paraphrase and remove italics

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

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