Reviewer's report

Title: Risk of infection due to medical interventions via central venous catheters or implantable venous access port systems at the middle port of a three-way stopcock: luer lock cap vs. luer access split septum (Q-Syte)

Version: 3 Date: 11 December 2013

Reviewer: Anna Casey

Reviewer's report:

Major Compulsory Revisions

Many of my comments have now been taken on board and incorporated into the manuscript. There are, however, a few issues outstanding.

1) I am satisfied that ethical committee approval is not required but I wonder then who approved study specific consent forms?

2) More information is required regarding the mean number of samples collected from each patient for each group. For example, results may be biased if 20 samples were obtained from 1 patient in one of the study groups.

3) A 'positive sample' would be best explained as the presence of 1 or more CFU.

4) The authors state that it was felt that there was no need to translate diagrams 3 and 4 into English but they simply show the complexity of handling. I disagree and whilst a translation has been provided in the key, the diagram should just be in English so that it is not further complicated.

5) It isn't necessary to give examples of companies who make three-way stopcocks (page 4).

6) I still maintain that any discussion of results should be accompanied by statistical analysis.

Minor Essential Revisions

1) There is a typo on page 5 line 6.

2) The title in figure 5 is still partly in German. The word 'smear' still appears once in the abstract.

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

Quality of written English: Needs some language corrections before being published

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'