Reviewer’s report

Title: First experience with a new negative Pressure Incision Management System on surgical Incisions after cardiac surgery in high risk patients

Version: 1 Date: 2 October 2011

Reviewer: Ramon Varcoe

Reviewer’s report:

The author has presented a series of 10 patients who are at high risk for sternal wound infection after cardiac surgery. This early report of a new topical negative pressure device presents interesting results that confirm its ease of use in everyday practice and make suggestions as to its safety. I have a number of concerns regarding this manuscript which are presented below.

Major Compulsory Revisions

1. The author needs to define the “good aesthetic outcome” and “good wound healing” that is being used as the primary endpoint and definition of successful treatment.

2. In the background the author mentions other successful methods of reducing SWI which are not widespread due to increased costs. No where does he mention the cost of this device or give an opinion as to whether the Prevena may suffer a similar fate.

3. Methods, para 1 – Please define the Fowler score that was to represent high risk. Was this predetermined before recruiting the participants? Where these 10 patients then consecutive high risk patients who reached that minimum Fowler score? Failing to predetermine and consecutively include patients will of course introduce selection bias and needs to be clarified.

4. Results and discussion, para 5 – This paragraph contradicts the claims from the 3rd paragraph of the background. This needs to be addressed.

5. Results and discussion, para 6 – These trials did not evaluate Prevena. It is made clear at the end of the paragraph that these were a modified topical VAC apparatus not the device under investigation here, however it should be stated earlier so as not to confuse the reader.

6. Results and discussion, para 8 – This is not the first reported use of Prevena. See:

Minor Essential Revisions

1. Title – Use title capitalization
2. Abstract, Methods- Either use -125mmHg or 125mmHg negative pressure, not both
3. Background, para 4 – Need to define the first use of the abbreviation NPWT
4. Background, para 4 - NWPT should be NPWT
5. Background, para 5 - Define V.A.C.
6. Methods, para 4 – Chest should not be capitalized.
7. Methods, para 4 - NWPT should be NPWT
8. Methods, para 4 – Please expand on what is an untreated or inadequately treated incision.
9. Methods, para 4 – Cellulitis is misspelled as cellulites
10. Results and discussion, para 2 – Intensive care unit should not be capitalized.
11. Results and discussion, para 3 – Reducing airborne what?
12. Results and discussion, para 4 – The second and third sentences require references.
13. Results and discussion, para 5 – Define RCT at first use
14. Results and discussion, para 5 – Define THA at first use
15. Results and discussion, para 6 – NWPT should be NPWT. This has occurred several times in this paragraph and throughout the rest of the discussion.
16. Conclusion – Profit is an incorrect use of the word

Discretionary Revisions

1. Methods, para 3 – What percentage of silver is contained in the dressing?
2. Methods, para 4 – What is the capacity of the canister?

Level of interest: An article of importance in its field

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