Reviewer's report

Title: Digital chest drainage system versus traditional chest drainage system after pulmonary resection: A systematic review and meta-analysis

Version: 0 Date: 29 Aug 2018

Reviewer: Alpha Diallo

Reviewer's report:

Since the advent of the digital chest drainage system, the medical literature has been fortunate with a wealth of articles comparing it efficacy with the analogue traditional chest drain system. All previous studies have, to some extent, proven the advantage of the digital drainage system in reducing the incidence of prolonged air leak, allowing early removal of the chest tube thus, shortening the hospital stay and minimizing the healthcare cost.

The present systematic review is a confirmation of the aforementioned.

It's a well written paper with adequate background literature search. The design and methods adhere to the principles of systematic reviews and the discussion is fair, acknowledging the limits of the study leading to a conclusion that paves the way to further research.

Of note though, the authors initially identified 80 studies that would meet their criteria of which, 60 articles were excluded as non-relevant followed by a further 12. It would be interesting to know, how many of the excluded studies were randomised controlled trials (if there were any). This essentially trimmed down the sample size to the tenth of what is was hoped to be, and constitutes a major limitation for a systematic review of such a well-studied topic.

Furthermore, the review did not mention that previous studies had also compared the 2 drainage systems from the angles of pleural inflammation and volume of pleural drainage. Michèle De Waele et al(1) have 2 publications on this, although they concluded to NO significant difference found.

In conclusion: the review, despite its limitations, confirms and reinforces what is currently know of the benefits of the digital chest drainage system and encourages further robust studies.

Ref:

**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal