Reviewer’s report

Title: Dynamics of microbiota during mechanical ventilation in aspiration pneumonia

Version: 1 Date: 19 Nov 2019

Reviewer: Gisli G Einarsson

Reviewer's report:

In general, Otsuji et al. have addressed my points raised during first round of review. I find that the authors have addressed the main limitations related to the current study in a sufficient manner. However, I do find the manuscript somewhat hard to follow in places and some attention might be required regarding sentence structure etc. Below are few examples that require attention.

General points:

Page 1, line 20, stating "...urgent social problem...", I think that "social problem" would in general more refer to problems such as crime and poverty etc. I would suggest that the authors would consider revising this statement and frame this somewhere along the lines of high economic and health-related impact or cost.

Page 3, lines 56-57, stating "Although more than 700 bacterial species or phylotypes have been detected in the oral cavity by genetic analysis, 30-60% of them have not been cultured [12,13].". This sentence is a bit confusing, as either 70% or 30% of anaerobes have not been cultured according to this statement. I would suggest that for clarity the authors would omit the numbers and instead say something such as "large number of anaerobic species have yet to be detected by cultured using conventional methodologies".

Page 5, lines 104-105, stating "The tracheal aspirate (B) were culture microaerobically...", would suggest to change this to "...were cultured under microaerophilic conditions..."

Page 6, line 119, "RDP (ribosomal data project)..." should be "database" not "data".

Page 6, line 120, stating "The sequences less than 90% value were deemed unclassified", the authors need to state what this value denotes. Is this "confidence threshold" or "similarity cut-off"?
Page 7, description of PCA plots. The authors need to state which R package (and package version) was used to produce the plot. The cited paper by Morotomi et al. (2011) gives a brief explanation of the justification for doing PCA plots, but does not provide specific information regarding the R package used.

Page 8, line 163, stating "The culture results and phylotypes detected by clone library method in each case were shown in Table 2". Suggest to change "…were shown…” to "are shown".

Page 9, line 175, remove white-space between "PC 1"

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

Yes

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

Unable to assess

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

Yes

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:

Needs some language corrections before being published
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 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