

PEER-REVIEW REPORT

Name of journal: World Journal of Critical Care Medicine

Manuscript NO: 36062

Title: Respiratory mechanics, ventilator-associated pneumonia and outcomes in ICU

Reviewer's code: 02454185

Reviewer's country: China

Science editor: Li-Jun Cui

Date sent for review: 2017-08-29

Date reviewed: 2017-08-29

Review time: 15 Hours

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

It is interesting that that authors use lung mechanics to predict VAP. although there may be many confounders and the authors have tried to adjust for them. I have several comments to improve the manuscript. 1. "The aim of this study was to assess the risk of changes in respiratory mechanics in the development of ventilator-associated pneumonia"---this sentence is confusing, the authors need to define that changes in respiratory mechanics is the risk factor (independent variable) for determination of outcomes (dependent variable). 2. in defining sample size, the primary outcome should be defined. the term "unfavorable outcomes" is confusing. Since it was a cohort study (not an explanatory trial), the sample size should have been determined by the number of risk factors in the model, usually the event of interest is ten times the number of risk factors. You need to cite reference if you felt your current calculation is valid, by explicitly stating each calculating factors. 3. inclusion/exclusion criteria were missing.

did you exclude patients who had re-intubation due to weaning failure? 4. insert a reference (Ann Transl Med. 2016 Mar;4(5):91. doi: 10.21037/atm.2016.02.11.) after the sentence "The results with normal distribution were compared using Student's t-test, and the non-normal distribution results by using the Mann-Whitney test." 5. When you present the table 5 for relative risk, did you use the univariate analysis or multivariate analysis? This is important that you should describe it in the Statistical method section (currently this section is missing). This multivariate analysis could be supported with a reference (Ann Transl Med. 2016 Mar;4(6):111. doi: 10.21037/atm.2016.02.15.). If the authors had used multivariable analysis, important issues such how covariates were selected, the model fitting diagnostics were important and should be reported. 6. for a cohort study, a patient selection FLOW diagram can help to identify potential bias arising from patient selection.

PEER-REVIEW REPORT

Name of journal: World Journal of Critical Care Medicine

Manuscript NO: 36062

Title: Respiratory mechanics, ventilator-associated pneumonia and outcomes in ICU

Reviewer's code: 03478911

Reviewer's country: South Korea

Science editor: Li-Jun Cui

Date sent for review: 2017-09-06

Date reviewed: 2017-09-15

Review time: 8 Days

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input checked="" type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

The authors assessed the risk of changes in respiratory mechanics in the development of ventilator-associated pneumonia. This clinical analysis is a very valuable study. Nonetheless, it needs supplement description to support the readers understand. 1. Introduction * It would be better to describe the information on the process of pulmonary disease via changes in respiratory mechanics. * Please describe the process that is being implemented to prevent the invasion of the disease and the problems associated with it. 2. Discussion * On the downside, relationship between pulmonary disease and mortality is a well recognized subject. Therefore, the contents must include a description of the clear differentiation of values comparing to existing studies. * Please describe what are the problems and difficulties in carrying out this study. 3. Please describes the full name before using the abbreviation.