Reviewer’s report

Title: Potential drug-drug interactions among pneumonia patients: Do these matter in clinical perspectives?

Version: 0 Date: 22 May 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are minor issues

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The present research has explored the risk of potential drug-drug interactions (pDDIs) among the pneumonia patients, who are generally prescribed with large number of medicines simultaneously to tackle the complexity of the disease and comorbid illnesses, and to manage the associated symptoms. Hence, this study has highlighted the need for the attention to the negative consequences of pDDIs.

The authors have focused the research on detecting and reporting the prevalence, levels, predictors, and clinical relevance of pDDIs in pneumonia patients. They have analyzed their data with logistic regression and have shown the adjusted odds ratio and p values of both the univariate and multivariate analyses. They have also presented the clinical relevance, dose considerations, and monitoring guidelines of top pDDIs to make the message clear.

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The authors have not mentioned sampling technique and basis of sample size calculation, in the absence of which generalization of the interpretation becomes difficult. When they are using logistic regression, it will be better to show the Nagelkerke's RN2 or Hosmer-Lemeshow RL2 as the measure of the effect size (along with the popular one i.e., odds ratio). Also, it will be better to show the models exactly. Also, it is imperative that they cite the reference of polypharmacy clearly. Other comments have been provided with this peer review.
ADDITIONAL REQUESTS/SUGGESTIONS: General comment: Use 'one of the contributing factors …'

Specific comments:

Background: Rewrite the sentence "Consequently, causing alteration in the pharmacokinetic parameters or pharmacodynamics profile of drugs [7, 8]" clearly.

Methods: Mention sampling technique and basis of sample size calculation.

Discussion:

* The authors have mentioned "Up to our knowledge prevalence based pDDIs studies, which are related to drugs prescribed to such patients remains unaddressed." Clarify whether you are referring to the worldwide scenario or country's scenario. How do you confirm this?

* The authors have mentioned "Polypharmacy refers to prescribing more than five drugs at a time." There are various viewpoints regarding the detection of polypharmacy. So, these viewpoints remain conflicting as well. Even more than one medicine (if it was prescribed for non-indicated condition) has also been defined as polypharmacy by Benetos et al. (2015), Shah et al. (2012), and Viktil et al. (2016). Merely mentioning more than 5 medicines does not represent all viewpoints. So, cite reference to support the definition.

* The authors have mentioned "The method initiated by this recent study is helpful for health care professionals to monitor and manage the adverse outcomes related to interactions." Clarify whether this method you are referring to was unique or already adopted by other.

References: Rewrite references 2, and 17 clearly.

Table 5: It's better to keep Table 5 as the appendix.

Figures 1 and 2: These can be better presented in tabular form with the associated frequencies, and percentage.

Note: This reviewer report can be downloaded - see attached pdf file.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

No

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

No

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

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

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