



**PEER-REVIEW REPORT**

**Name of journal:** *World Journal of Critical Care Medicine*

**Manuscript NO:** 72354

**Title:** Retrospective analysis of aspirin's role in the severity of COVID-19 pneumonia

**Provenance and peer review:** Unsolicited manuscript; externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 02885211

**Position:** Peer Reviewer

**Academic degree:** DO

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** United States

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-11-18

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-11-19 06:13

**Reviewer performed review:** 2021-12-01 01:07

**Review time:** 11 Days and 18 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** bpgoffice@wjgnet.com  
**https://**www.wjgnet.com

statements

Conflicts-of-Interest: [ ] Yes [Y] No

## SPECIFIC COMMENTS TO AUTHORS

See attached General Comments This retrospective study to determine if use of ASA impacts clinical outcome in patients admitted to Covid-19 disease. Outcomes measured were icu admission, mechanical ventilation and mortality. Overall despite small number the paper would provide important evidence to current Covid -19 literature. The paper needs revisions. I applaud the investigators performing this difficult analysis with patients receiving multiple agents which may impact the results The investigators employed univariate analysis and multinomial logistic regression analysis. Their results suggest that ASA does not improve clinical outcomes. However this study suffers due to its small size and the environmental fallacy inherent in all retrospective studies. Furthermore many patients were on more than 1 anticoagulant or antiplatelet agents. In order to make a stronger case for their results the authors should consider: I major revisions: When was ASA started were patients admitted on ASA? Or was it initiated on admission. If so this should be stated. If so consideration for a cox proportional hazards analysis with asa use as a time dependent covariate. Why were not routine labs analyzed or at least markers of inflammation pao2/FIO2 ratio neutrophils/ lymphocyte ratio DDIMER Fibrinogen CRP Ferritin measured can investigators provide? Was heparin either for dvt prophylaxis or systemic anticoagulation used used this should be documented and analyzed? Please consider propensity adjusted or consider propensity matched analysis. How many patients received corticosteroids this clearly should be analyzed Minor many issues with tables The tables need work for univariate categorical variables odds ratio and 95% CI Also in the logistic regression beta should be expressed as odds ratio and lower upper as 95% CI Table 2 needs p values and odds ratios. In all the tables it would make the results



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](http://www.wjgnet.com)

understood better if Only the group with the risk factor present should be displayed as an N and percentage and the percentage should be expressed as a percentage of the exposure group in way of example (N present/N exposure  $\times 100$ ) ASA (n=38) No ASA (n=87) HTN 32 (86%) 50 (57%) This should be the same for figures for age distribution percentages as it makes data more meaningful and understandable



**PEER-REVIEW REPORT**

**Name of journal:** *World Journal of Critical Care Medicine*

**Manuscript NO:** 72354

**Title:** Retrospective analysis of aspirin's role in the severity of COVID-19 pneumonia

**Provenance and peer review:** Unsolicited manuscript; externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 06006212

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** Japan

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-11-18

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-12-02 04:34

**Reviewer performed review:** 2021-12-02 06:58

**Review time:** 2 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** bpgoffice@wjgnet.com  
**https://**www.wjgnet.com

statements

Conflicts-of-Interest: [ ] Yes [Y] No

### **SPECIFIC COMMENTS TO AUTHORS**

Thank you very much for letting me contribute to this scientific study. Many studies showed the association between worse outcomes of COVID-19 and comorbidities, such as hypertension, diabetes, chronic kidney diseases. Patients with those background factors often take daily aspirin. Therefore, evaluating the benefit of aspirin in COVID-19 patients is meaningful. However, this study has several concerns, mainly in the design. My comments are below. 1) In the results section of the abstract, the authors showed the reduced ICU admission of the aspirin intake group without statistically significant difference. However, the sentence states otherwise. 2) HTN, DM, and HLD should be spelled out. 3) Introduction and Methods are not consistent. If the purpose of the study was to elucidate the relationship between the daily aspirin intake and COVID-19 outcomes, the study should be designed more specifically, rather than putting lots of possible variables into SPSS. 4) Over-explanation of meanings of basic statistical values is not necessary. 5) Table 1 and Figure 1, and Table 2 and Figure 2 are redundant. Overall, I understand that the study aims to evaluate the effect of daily aspirin use on COVID-19 outcomes. In that sense, a direct comparison between the aspirin and non-aspirin groups will be more applicable to clinical practice than multivariate logistic regression. Propensity score matching or inverse propensity weighting will be helpful to add some more value to what the authors are doing.



## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Critical Care Medicine*

**Manuscript NO:** 72354

**Title:** Retrospective analysis of aspirin's role in the severity of COVID-19 pneumonia

**Provenance and peer review:** Unsolicited manuscript; externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 06006212

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** Japan

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-11-18

**Reviewer chosen by:** Ji-Hong Liu

**Reviewer accepted review:** 2022-01-12 06:38

**Reviewer performed review:** 2022-01-12 07:23

**Review time:** 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](https://www.wjgnet.com)

#### **SPECIFIC COMMENTS TO AUTHORS**

Thank you very much for letting me contribute to this study. The authors investigated the preventive effect of daily aspirin intake against COVID-19 progression to ICU. The revised manuscript is clearly more sophisticated and impactful. I still have some questions for the authors. 1) In the manuscript, 38 patients were taking daily aspirin before hospitalization. However, according to the propensity analysis they performed following several suggestions from reviewers and editors, there were 47 patients on the aspirin-taking arm. Did the authors allow duplication when they performed propensity analysis? 2) Propensity matching is not quite suitable in a study with small sample size, as the authors replied. However, did they try the inverse weighting technique as well? That could be the solution to assimilate the baseline characteristics in the two groups and enhance the generalizability of this study. I still do not understand why the variables the authors included in the logistic regression are supposed to improve the prediction performance of the statistical model.



## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** *World Journal of Critical Care Medicine*

**Manuscript NO:** 72354

**Title:** Retrospective analysis of aspirin's role in the severity of COVID-19 pneumonia

**Provenance and peer review:** Unsolicited manuscript; externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 02885211

**Position:** Peer Reviewer

**Academic degree:** DO

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Reviewer\_Country

**Author's Country/Territory:** United States

**Manuscript submission date:** 2021-11-18

**Reviewer chosen by:** Ji-Hong Liu

**Reviewer accepted review:** 2022-01-13 03:14

**Reviewer performed review:** 2022-01-13 03:22

**Review time:** 1 Hour

<b>Scientific quality</b>	<input checked="" type="checkbox"/> Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
<b>Conclusion</b>	<input checked="" type="checkbox"/> Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes <input checked="" type="checkbox"/> No



**Baishideng  
Publishing  
Group**

7041 Koll Center Parkway, Suite  
160, Pleasanton, CA 94566, USA  
**Telephone:** +1-925-399-1568  
**E-mail:** [bpgoffice@wjgnet.com](mailto:bpgoffice@wjgnet.com)  
**https://**[www.wjgnet.com](https://www.wjgnet.com)

#### **SPECIFIC COMMENTS TO AUTHORS**

It is acceptable for publication in my opinion propensity score matching or adjustment can be added as a supplementary file however i will leave to discretion of science editor  
Cheers!