# PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastrointestinal Oncology  

**Manuscript NO:** 85511  

**Title:** Development and validation of a postoperative pulmonary infection prediction model for patients with primary hepatic carcinoma  

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed  

**Peer-review model:** Single blind  

**Reviewer’s code:** 06241790  

**Position:** Peer Reviewer  

**Academic degree:** MD  

**Professional title:** Doctor  

**Reviewer’s Country/Territory:** China  

**Author’s Country/Territory:** China  

**Manuscript submission date:** 2023-05-01  

**Reviewer chosen by:** AI Technique  

**Reviewer accepted review:** 2023-05-06 02:53  

**Reviewer performed review:** 2023-05-06 15:47  

**Review time:** 12 Hours

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<tr>
<th>Scientific quality</th>
<th>Grade A: Excellent</th>
<th>Grade B: Very good</th>
<th>Grade C: Good</th>
<th>Grade D: Fair</th>
<th>Grade E: Do not publish</th>
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<tr>
<td>Novelty of this manuscript</td>
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<td>Grade C: Fair</td>
<td>Grade D: No novelty</td>
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<tr>
<td>Creativity or innovation of this manuscript</td>
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<td>Grade C: Fair</td>
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### Scientific significance of the conclusion in this manuscript

- [ ] Grade A: Excellent
- [ ] Grade B: Good
- [ Y] Grade C: Fair
- [ ] Grade D: No scientific significance

### Language quality

- [ ] Grade A: Priority publishing
- [ ] Grade B: Minor language polishing
- [ Y] Grade C: A great deal of language polishing
- [ ] Grade D: Rejection

### Conclusion

- [ ] Accept (High priority)
- [ ] Accept (General priority)
- [ ] Minor revision
- [ Y] Major revision
- [ ] Rejection

### Re-review

- [ Y] Yes
- [ ] No

### Peer-reviewer statements

- Peer-Review: [ Y] Anonymous
- [ ] Onymous

### Conflicts-of-Interest

- [ ] Yes
- [ Y] No

**SPECIFIC COMMENTS TO AUTHORS**

see the attached microsoft office WORD file.
**Name of journal:** World Journal of Gastrointestinal Oncology  
**Manuscript NO:** 85511  
**Title:** Development and validation of a postoperative pulmonary infection prediction model for patients with primary hepatic carcinoma  
**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed  
**Peer-review model:** Single blind  
**Reviewer’s code:** 05126185  
**Position:** Editorial Board  
**Academic degree:** PhD  
**Professional title:** Associate Professor  
**Reviewer’s Country/Territory:** South Korea  
**Author’s Country/Territory:** China  
**Manuscript submission date:** 2023-05-01  
**Reviewer chosen by:** AI Technique  
**Reviewer accepted review:** 2023-05-01 12:37  
**Reviewer performed review:** 2023-05-09 04:39  
**Review time:** 7 Days and 16 Hours

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SPECIFIC COMMENTS TO AUTHORS
I am really grateful to review this manuscript. In my opinion, this manuscript can be published once some revision is done successfully. This study used three machine learning models and radiomic data of 505 patients for the prediction of postoperative pulmonary infection with primary hepatic carcinoma. The random forest achieved the area under the curve of 90.1% and inverse difference, the sum of squares, mean sum and sum entropy were most important predictors. I would argue that this is a great achievement. But Shapley Additive Explanations (SHAP) is gaining immense popularity given that it provides the direction of association between the dependent variable and its major predictor. In this context, I would like to suggest the authors to derive the SHAP summary plot of the random forest.
**PEER-REVIEW REPORT**

**Name of journal:** World Journal of Gastrointestinal Oncology

**Manuscript NO:** 85511

**Title:** Development and validation of a postoperative pulmonary infection prediction model for patients with primary hepatic carcinoma

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer’s code:** 05872085

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

**Author’s Country/Territory:** China

**Manuscript submission date:** 2023-05-01

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-05-01 12:29

**Reviewer performed review:** 2023-05-10 21:27

**Review time:** 9 Days and 8 Hours

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<td>Conflicts-of-Interest:</td>
<td>[ ] Yes  [ Y] No</td>
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**SPECIFIC COMMENTS TO AUTHORS**

Methods: Line 131 - define ROI Results: Table 1 in the manuscript should be replaced by the supplementary table 1. Supplementary table 4: include a footnote describing what the variables with layhid are and how to interpret them. This applies to all other places in the manuscript these variables are presented or discussed. Discussion: Is the incidence rate of pulmonary infection in the study 17.03%? If yes, what is 11.23% mentioned on line 258. Discussion: a potential limitation of the study is that it does not tell us how the features found to be important to predict pulmonary infection are clinically valuable although the authors do go on to conclude that their results are useful as such. Without a clear numerical cutoff or other guidance on how various features based on the MRI data can be used by clinicians to predict the risk of pulmonary infection, all this study can show is that the identified features are important. Further research is needed to identify specifically which features can inform clinicians. It is also not clear if the features identified in the study increase or decrease the risk of pulmonary infection.
RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 85511

Title: Development and validation of a postoperative pulmonary infection prediction model for patients with primary hepatic carcinoma

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05126185

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer’s Country/Territory: South Korea

Author’s Country/Territory: China

Manuscript submission date: 2023-05-01

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-05-15 08:05

Reviewer performed review: 2023-05-15 08:17

Review time: 1 Hour

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<td>[ ] Major revision</td>
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| Peer-reviewer      | Peer-Review: [ Y] Anonymous | [ ] Onymous |


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

SPECIFIC COMMENTS TO AUTHORS
In my opinion, this manuscript can be published in current form.