Baishideng Publishing Group

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# PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 90033

**Title:** leveraging machine learning for early recurrence prediction in hepatocellular carcinoma: a step towards precision medicine

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

**Peer-review model:** Single blind

**Reviewer's code:** 05327699
**Position:** Editorial Board
**Academic degree:** MBBS, MNAMS, MS
**Professional title:** Additional Professor
**Reviewer's Country/Territory:** India
**Author's Country/Territory:** New Zealand

**Manuscript submission date:** 2023-11-21

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-11-22 05:22

**Reviewer performed review:** 2023-11-22 05:35

**Review time:** 1 Hour

| | |
|---|---|
| **Scientific quality** | [ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good<br>[ ] Grade D: Fair [ ] Grade E: Do not publish |
| **Novelty of this manuscript** | [ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair<br>[ ] Grade D: No novelty |
| **Creativity or innovation of this manuscript** | [ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair<br>[ ] Grade D: No creativity or innovation |

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|---|---|
| **Scientific significance of the conclusion in this manuscript** | [ ] Grade A: Excellent [ Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance |
| **Language quality** | [ ] Grade A: Priority publishing [ Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection |
| **Conclusion** | [ ] Accept (High priority) [ Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection |
| **Re-review** | [ ] Yes [ Y] No |
| **Peer-reviewer statements** | Peer-Review: [ Y] Anonymous [ ] Onymous |
| | Conflicts-of-Interest: [ ] Yes [ Y] No |

**SPECIFIC COMMENTS TO AUTHORS**

Dear Authors, Excellent editorial, kindly improve on these points : 1. How the Machine learning model was trained and how it's sensitivity, specificity and predictive value was objectively measured? 2. Make a tabulated format of difference between Random Survival Forest vs Cox Proportional Hazard mode for Hepatocellular Carcinoma. 3. Add few lines on the future role of AI in evaluating hepatic diseases. Thanks

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**Reviewer's code:** 03721089
**Position:** Peer Reviewer
**Academic degree:** MD
**Professional title:** Attending Doctor
**Reviewer's Country/Territory:** China
**Author's Country/Territory:** New Zealand

**Manuscript submission date:** 2023-11-21

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-11-21 08:24

**Reviewer performed review:** 2023-11-29 15:34

**Review time:** 8 Days and 7 Hours

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|---|---|
| **Scientific quality** | [ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good<br>[ ] Grade D: Fair [ ] Grade E: Do not publish |
| **Novelty of this manuscript** | [ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair<br>[ ] Grade D: No novelty |
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| **Peer-reviewer statements** | Peer-Review: [ Y] Anonymous [ ] Onymous |
| | Conflicts-of-Interest: [ ] Yes [ Y] No |

## SPECIFIC COMMENTS TO AUTHORS

This research is on the leveraging machine learning for early recurrence prediction in hepatocellular carcinoma: a step towards precision medicine. This study is innovative, and may have certain value in the early recurrence of hepatocellular carcinoma after surgery. The model's ability to stratify risk facilitates targeted postoperative strategies, showcasing its potential as a guide for personalized patient care. The limitations to this study include selection bias as the cohort of patients largely had liver disease secondary to hepatitis B, which leaves a large space to question the applicability of these outcomes to other aetiologies of liver disease. In the follow-up study, whether there is a better method to reduce this selection bias and predict the recurrence factors of hepatocellular carcinoma of different etiologies? For this study, are there any relevant diagrams to help clarify the construction of the model? Could you clarify the inclusion and exclusion criteria and clinical application conditions of this study in more detail?