

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 91428

Title: Development and validation of a Bayesian network-based survival prediction model for post-TIPS patients with portal hypertension

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06178412

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: India

Author's Country/Territory: China

Manuscript submission date: 2023-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-12-30 19:01

Reviewer performed review: 2024-01-06 07:26

Review time: 6 Days and 12 Hours

Scientific quality	<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 Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<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
Conclusion	<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
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

1. Original Submission Recommendation to the author and editor: Minor revision Title: Development and validation of a Bayesian network-based survival prediction model for post-TIPS patients with portal hypertension Article Type: Research article 2. Comments to the Corresponding Author: COPE Ethical guidelines followed during the review process, In this manuscript, authors developed Bayesian network based overall survival prediction in the patients with portal hypertension (PHT) comorbid with post-Transjugular intrahepatic portosystemic shunt (TIPS). Authors collected clinical data pertinent to 393 cirrhotic PHT patients who were underwent TIPS surgery. LASSO analysis was performed to assess overall survival in these patients. Authors elucidated that a BN-based 2-year survival prognostic prediction model was constructed, which discerned those factors like age, ascites, indications for TIPS, concurrent hypertension, post-PVP, Child-Pugh grading, and MELD score were directly linked to survival time. This model according to the authors given data, offers valuable insights for treatment strategies and prognostic evaluations in patients post-TIPS procedure for PHT. Comments: Overview and general recommendation: The paper was well written and



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data is satisfactory. Yet, proofreading can enhance the quality of the manuscript. Several sentences need rewriting to make the readers comfortable when reading this. Please enhance the manuscript by eliminating several sentence formatting errors, please correct them. 1. Authors should expand the introduction and discussion part with additional content for comparative implications of with the following published reports. 2. I am satisfied with the model validation by the accuracy, precision, recall, and F1 score were 0.90, 0.92, 0.97, and 0.95 respectively, with the AUC-ROC being 0.72. However, I would expect greater than 0.8 that makes a very good validation but there is novelty in the study. 3. Conclusion should be explained vividly 4. Line by line proof reading is potentially required. **Thank you**