# PEER-REVIEW REPORT

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[  ] Grade D: Fair   [  ] Grade E: Do not publish |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

| 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    [ Y] Grade B: Minor language polishing    [ ] 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

The paper aims to develop and validate a scoring system for predicting the individualized risk of venous thromboembolism (VTE) within the first 30 days after Roux-en-Y gastric bypass (RYGB) surgery. Using data from 6526 patients, the authors identified four preoperative variables (history of chronic obstructive pulmonary disease, prior venous thrombosis, chronic kidney disease, and HbA1C > 7%) and created a risk model with an area under the curve (AUC) of 0.75, demonstrating good discriminatory power, with a sensitivity of 0.51 and specificity of 0.71. While the paper addresses a crucial aspect of postoperative care in RYGB patients, the AUROC of 0.75, sensitivity of 0.51, and specificity of 0.71 might limit its clinical utility. The sensitivity is relatively low, potentially leading to underestimation of actual VTE cases, while the specificity might result in false positives. It is encouraging that the authors employed machine learning for risk prediction, but optimizing the model to achieve higher AUROC, sensitivity, and specificity is crucial for its clinical applicability. The study is promising, but refining the model could enhance its accuracy and impact on improving patient outcomes in RYGB surgery. I would like to review a revised paper, featuring an optimized AI model that

yields improved results. Additionally, I suggets the authors include a TRIPOD checklist. TRIPOD, which stands for Transparent Reporting of a Multivariable Prediction Model for Individual Prognosis or Diagnosis, is a set of guidelines aimed at ensuring transparency and completeness in reporting studies related to the development, validation, or updating of prediction models.

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| **Peer-reviewer** | Peer-Review: [ Y] Anonymous   [ ] Onymous |

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

## SPECIFIC COMMENTS TO AUTHORS

My concerns have been addressed.