

## Response to the reviewers

The reviewers' comments and their suggestions for improvement of the manuscript have been addressed in the revised manuscript. Below we provide a point-by-point response to the comments.

### ***Reviewer #1:***

1. The study deals with an important topic, namely the predictive models for pancreatic fistula after pancreatic resections.

**Response:** We would like to thank the reviewer for acknowledging the importance of our study on predictive models for pancreatic fistula after pancreatic resection.

2. The authors made a thorough analysis and description of the predictive models, however it is a little bit diffuse, due to the huge number of data. It should be systematized, moreover the author should take a commitment, which model they recommend based on the literature data.

**Response:** We appreciate the feedback and understanding the concern regarding the sheer volume of data included in the analysis. We acknowledge the need for a more systematic presentation and the importance of providing a clear recommendation based on the literature data. First, we conducted a comprehensive search of the literature in the PubMed database to identify relevant studies on prediction models for pancreatic fistula after pancreatectomy. Second, we organized the analyses in order of surgery type and year of model release (Tables 4-9) to improve the clarity and focus of this paper. Finally, we recommended specific predictive models for clinical application based on the literature data. For pancreaticoduodenectomy, the current literature indicates that a-FRS and ua-FRS have been validated by numerous external studies with acceptable accuracy and are two recommended models. For distal pancreatectomy, the preoperative D-FRS is the most recommended model due to its practicality and ease of use, as it relies on easily measurable radiographic images to assess pancreatic thickness and MPD diameter for preoperative risk stratification. For

central pancreatectomy, due to its ease of use and accurate preoperative prediction, the Preop-D-Roberts-FRS is recommended for clinical practice.

3. Moreover what kind of clinical significance and benefits of these models are there, concerning the prevention and the management of the pancreatic fistula (anastomotic methods, octreotide, stenting of the Wirsung's duct, etc.)?

**Response:** We greatly appreciate this comment. Predictive models serve as useful tools for risk stratification and resource allocation, with a focus on patients who stand to benefit the most. By efficiently identifying patients at a higher risk of POPF, these models allow healthcare providers to tailor their management approach based on an individual patient's risk profile. With the ability to pinpoint high-risk patients, predictive models empower providers to proactively implement preventive strategies, including appropriate anastomotic technique, octreotide administration, prophylactic drains, and Wirsung's duct stenting, while also initiating closer postoperative monitoring. Furthermore, predictive models offer valuable information for shared decision-making between healthcare providers and patients. This ensures that patients are well-informed about their risk of developing POPF, along with the potential benefits and risks associated with various prevention and management strategies. As a result, patients can actively participate in decisions regarding their treatment and care.