

Dear Editor/Reviewers:

Thank you very much for the valuable comments, and we appreciate the opportunity to revise our manuscript. We have prepared an attached a point-by-point response to these comments herewith.

**Editor:**

1. Please provide language certificate letter by professional English language editing companies (Classification of manuscript language quality evaluation is B).

For manuscripts submitted by non-native speakers of English, please provided language certificate by professional English language editing companies mentioned in **'The Revision Policies of BPG for Article'**.

**Answer:**

We do have polished the article again after revision. However, after polishing was done, we noticed that the editing company we chose is not mentioned in **'The Revision Policies of BPG for Article'**. Here, we submitted the certification of the company we chose. We are willing to let the manuscript be polished again by editing companies mentioned in **'The Revision Policies of BPG for Article'**, if the language is still considered as unqualified by editors.

2. Please revise and perfect your manuscript according to peer-reviewers' comments.

**Answer:**

We appreciate this suggestion. Based on reviews' comment, we have revised the manuscript.

3. Add postcode

**Answer:**

We appreciate this suggestion. We have added the postcode, and the changes are highlighted in red.

4. AIM: No more than 20 words, and start with "To..."

**Answer:**

We appreciate this suggestion. We have revised the sentence, and the changes are highlighted in red.

5. Please provide all authors abbreviation names and manuscript title here. World J \*\*  
2019; In press

**Answer:**

We have added the authors abbreviation names and manuscript title, and the changes are highlighted in red.

6. Please provide the decomposable figure of all the figures, whose parts are all movable and editable, organize them into a PowerPoint file, and submit as "Manuscript No. - image files.ppt" on the system. Make sure that the layers in the PPT file are fully editable.

**Answer:**

We appreciate this suggestion. The PowerPoint file was provided.

**Reviewer #1:**

1. This is a retrospective analysis on predictive factors of SSI in patients undergone hepatectomy for HCC. Title should be revised. The results of this study should not be generalized on liver surgery.

**Answer:**

We appreciate this suggestion. Based on this comment, we have revised the title, and the changes are highlighted in red.

2.The study population is very stringent. Exclusion of additional surgery and biliary reconstruction is diminishing the power of study. Liver surgery or hepatectomy is not used only to treat HCC patients.

**Answer:**

We appreciate this comment, and agree with your opinion.

3.Regarding to inclusion criteria, how did authors diagnose HCC preoperatively? Did you used liver bx or not?

**Answer:**

This is an important question. In our center, we routinely diagnose patients with HCC using imaging studies and tumor bio-marker tests. Although we perform liver biopsies in some cases where the diagnosis is unclear, these cases are relatively rare.

4.Did authors use any classification system regarding to HCC? I would like to see distribution of staging of disease in study group. The role of malignant process in the development of SSI should be investigated.

**Answer:**

Thank you for highlighting this issue. We have added staging information from the 2 cohorts in Tables 1 and 2, and the changes are highlighted in red.

5. How many patients are faced with preoperative treatment other than surgery (TACE/RF/sorafenib treatment)? Did authors investigate the role of preoperative treatment (TACE/RF/sorafenib) in the development of SSI? In discussion part, authors mentioned about preoperative treatments, however, I have not seen any data regarding to this issue in the manuscript.

**Answer:**

We appreciate the comment. We have information on preoperative treatment in the 2 cohorts in Tables 1 and 2, and the changes are highlighted in red.

6. As very well known in the surgical infection study groups, the diagnosis of infection after surgical procedures done as 20 to 30 days after operation. The absence of analysis of postoperative factors on the development of SSI in the manuscript is a major faulty.

**Answer:**

In our center, we routinely perform enhanced recovery after surgery (ERAS) for patients undergoing hepatectomy. Patients are discharged soon after surgery once they met the recovery criteria and were willing to go home[1]. Hence, we primarily focused on the preoperative and intra-operative predictors because we aimed to develop a prediction model to identify suitable patients for ERAS at a relatively early time point. However, the lack of analysis of postoperative factors could affect the performance of the model. We believe this is a valid concern, and will aim to address this in next study.

7. I can't see the postoperative complications regarding to Dindo's classification in a table. Authors assured to classify their complications regarding to this classification, however, no data including the manuscript. This is another essential problem.

**Answer:**

We apologize for this error, and have added Clavien-Dindo's classification of SSI severity in Tables 1; these changes are highlighted in red.

8. The rate of major hepatectomy is very low. The low SSI rate and mortality may be related to this factor. This bias should be accepted by the authors and this issue should be mentioned in discussion part of manuscript.

**Answer:**

We appreciate the comment. We have mentioned this limitation in the discussion portion of the manuscript, and the changes are highlighted in red.

**Reviewer #2:**

This is a retrospective review of 640 patients who underwent hepatectomy for hepatocellular cancer at 2 centers in China. Using these cohorts the authors were able to devise a nomogram to predict the risk of surgical site infections in patients undergoing hepatectomy for HCC.

1.It is a well-written article, with only a few minor grammatical issues, which I have addressed below.

**Answer:**

Thank you for your comment, and we have attempted to address the grammatical issues in the revised manuscript.

2. I also have 1 question in the design of the study. The authors describe the difference

in the 2 centers used. Training and a Validation cohorts. I do not appreciate a significant difference in the results from the 2 groups and do not understand why the 2 hospital are divided into these 2 cohorts, but then in the discussion they seem to be combined into 1 cohort of 640 patients. Could this be elaborated on in the manuscript? Both centers are high volume. Were the patients from the Training cohort done prior to the Validation cohort? What was done differently in the Validation cohort to justify this distinction?

**Answer:**

We reviewed Tables 1 and 2, and did not find any significant difference between the 2 cohorts. The main reason for dividing the 2 hospital groups into 2 separate cohorts was to ensure the external and independent nature of our validation cohort. We developed this prediction model based on the population from the training cohort from the first hospital, and then used the patients from the second hospital as an independent external validation cohort. In the stratification analysis, we assessed both cohorts together since the validation has been performed.

3. Core Tip This nomogram integrating information of medical history, liver function, performance status and intra-operative risk may have potential for helping surgeon identify the patients with increased risk of SSI in clinical practice. Should read: "This nomogram integrating information of medical history, liver function, performance status and intra-operative risk may have THE potential for helping surgeon'S identify patients with AN increased risk of SSI in clinical practice."

**Answer:**

We appreciate this comment, and have modified this sentence according to your suggestion; the changes are highlighted in red.

4. Introduction In the present study, we aimed to investigate the risk factors for SSI after hepatectomy for HCC, and develop a prediction model for SSI by analyzing clinical data from a consecutive series of patients undergoing hepatectomy at our institution and validate the prediction model in external cohort. Should read: “In the present study, we aimed to investigate the risk factors for SSI after hepatectomy for HCC, and develop a prediction model for SSI by analyzing clinical data from a consecutive series of patients undergoing hepatectomy at our institution and validate the prediction model in AN external cohort.”

**Answer:**

Thank you for the comment. We have revised this sentence based on your suggestion, and the changes are highlighted **in red**.

5. Patient Management The prophylactic antibiotics (a first-generation cephalosporin) was administered 30 minutes before skin incision, every 3-hour during the surgery and twice daily for two days after surgery, according to the CDC guidelines. The drainage tube were routinely placed in the right subphrenic space, Winslow foremen, or the cut surface of the liver, according to the type of hepatectomy and was connected to a closed drainage system. “Prophylactic antibiotics (a first-generation cephalosporin) wERE administered 30 minutes before skin incision, every 3-hour during the surgery and twice daily for two days after surgery, according to CDC guidelines. DRAINS were routinely placed in the right subphrenic space, FORAMEN OF Winslow, or ALONG the cut surface of the liver, according to the type of hepatectomy and was connected to a closed drainage system.

**Answer:**

Thank you for the comment. We have revised this sentence based on your suggestion, and the changes are highlighted **in red**.

6. Development and validation of the predictive nomogram The C-index of the nomogram for SSI prediction were 0.86 for training cohort and 0.84 for validation cohort (Figure 2 A and C). “The C-index of the nomogram for SSI prediction wAS 0.86 for the training cohort and 0.84 for THE validation cohort (Figure 2 A and C).

**Answer:**

Thank you for the comment. We have revised this sentence based on your suggestion, and the changes are highlighted **in red**.

7.We compare the nomogram with NNIS risk index in both traing corhort and validation cohort. “We compareD the nomogram with THE NNIS risk index in both THE TRAINING and validation cohortS.”

**Answer:**

Thank you for the comment. We have revised this sentence based on your suggestion, and the changes are highlighted **in red**.

8. Discussion It is noteworthy that the experience of surgical team played a important role in determining the duration of surgery. “It is noteworthy that the experience of THE surgical team played aN important role in determining the duration of surgery.”

**Answer:**

Thank you for the comment. We have revised this sentence based on your suggestion, and the changes are highlighted **in red**.

1. Bai X, Zhang X, Lu F, et al. The implementation of an enhanced recovery after surgery (ERAS) program following pancreatic surgery in an academic medical center of China. *Pancreatology* 2016;**16**(4):665-70 doi: 10.1016/j.pan.2016.03.018[published Online First: Epub Date]].