

Dear Company Editor-in-Chief Lian-Sheng Ma,

My co-author and I are grateful for the reviewer' comment and your continued consideration of our manuscript for publication in *World Journal of Clinical Cases*. Below are our point-to-point response. Also, please find the corresponding revised text in the article.

Reviewer #1:

Specific Comments to Authors: It is an interesting review article exploring miscellaneous prediction models for the development of hepatocellular carcinoma (HCC) in chronic hepatitis B (CHB) patients, including untreated and treated patients at baseline or during therapy. Although all risk scores utilize clinical variables and appear readily apply to most patients, inclusion of dynamic changes in variables could further improve the accuracy of predicting HCC after antiviral treatment. Finally, the authors concluded that patients at high risk of HCC should undergo increased surveillance, and those in the low-risk profile need minimal surveillance due to their negligible risk. The manuscript is well written in English and directly relevant to the clinical application. There is only one minor suggestion as follows. Indeed, most HCC prediction models from Asian CHB patients have not been elucidated in Caucasian victims yet, and further investigations are needed to validate and compare the risk scores in different populations, especially the Caucasian race. Since the PAGE-B model is the first HCC risk score produced in Caucasian patients, there have been a lot of studies examining both Western and Eastern populations by using this model, raising a possibility that other scores developed from Asia might not bring the research interests to compare Asian patients with Western victims yet. Nevertheless, in conclusion section, the authors concluded that PAGE-B is the “only” score that demonstrates good predictability for HCC development in treated Asian and Caucasian CHB patients.

Response: We agree with the reviewer' comment. We revised this in the conclusion section of page 18.

## CONCLUSION

A number of HCC risk scores have been developed for the prediction of HCC risk in CHB patients. All these risk scores use clinical variables and appear readily generalizable to most CHB patients. Inclusion of dynamic changes in variables, especially the results of noninvasive tests of fibrosis, could further improve the accuracy of predicting HCC in CHB patients after antiviral treatment. The direct comparison of the predictability of different risk scores is not reliable due to the different races, ages and proportions of liver cirrhosis, courses of disease and HBV DNA levels in the development cohorts. Although different HCC risk scores present variable performance in different populations, they all display high negative predictive values for excluding HCC development in CHB patients. Patients at high risk of HCC should undergo increased HCC surveillance. Patients in the low-risk profile need HCC minimal surveillance due to their negligible HCC risk. Different levels of intensities of HCC surveillance should be offered according to the risk category of patients. The intensity of HCC surveillance needs to be assessed. To date, PAGE-B that demonstrates good predictability for HCC development in treated Asian and Caucasian CHB patients. Most HCC prediction models from Asia have not been confirmed in Caucasian CHB patients. Further studies are needed to directly validate and compare the HCC risk scores in independent patient cohorts of different races.

We hope the above response is satisfactory to you and the reviewer. Thank you once again for your consideration of our manuscript for publication in *World Journal of Clinical cases*.

Sincerely yours,

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