Author’s response to reviews

Title: Self-motivated medical care-seeking behaviors and disease progression in a community-based cohort of chronic hepatitis B virus-infected patients in China

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Reviewer reports:
Gautam Ray (Reviewer 1): Though there is improvement in the manuscript yet the drawbacks are still many

[1] English language is still much below par and needs far more polishing for proper understanding
Response: We have polished the English by using a professional editing service.

[2] It is improper to use "convenience" sampling for community study of a disease as important as hepatitis B as the population may not be correctly represented and there may be improper projection of results. Even though it is done for ease of sample collection, the most important thing that it should ensure is that everybody is willing to participate but there was excessive patient loss to follow up in this study.
Response: Yes, we completely agree with the reviewer’s comments. In fact, we recruited the study subjects based on the national hepatitis B sero-survey in 2006 in China. In this national survey, the HBsAg-positive rate in China was obtained through multiple stages of random sampling (details of the process can be found in reference 9). In 2009, we followed-up with these HBsAg-positive individuals and recruited the target population based on our inclusion criteria. A willingness to participate was one of the recruitment criteria. However, as this study lasted for 5 years, due to population changing locations for reasons such as work and study, 638 (26%) of the participants could not be followed-up with, and this issue has been addressed in our acknowledgement of limitations.

For clarity, we have modified the corresponding content of the text (line 95-101) and added references, as follows:

In 2009, we revisited the chronic HBV-infected persons who were shown to be HBsAg-positive in a 2006 national sero-survey that employed a multistage random sampling method [9], and then we recruited target subjects with the following inclusion criteria: 1) reliable HBsAg-positive test results; 2) local resident for at least 6 months; 3) no other chronic liver diseases, such as coinfection with HCV or HDV, alcoholic or nonalcoholic fatty liver disease or steatohepatitis; 4) willingness to participate in the investigation.

[3] Format of bibliography is still improper [Remove commas in between name of journal and the year of publication.]

Response: We have modified the reference format of this article with reference to the publication format of this journal in 2018.

[4] Definition of HBV carrier and chronic hepatitis B, detection of cirrhosis and HCC only by USG is improper [as also mentioned by Reviewer 2] so also the method of estimation of disease progression. This being a public health paper, the only positive fact may be that at least the projected results should be equal or more than the true results and not less.

Response: We carefully checked the original questionnaire and found that most of the HBV patients’ medical imaging was performed using USG, and some patients underwent computerized tomography (CT) or magnetic resonance imaging (MRI). Most HCC patients underwent alpha fetoprotein (AFP) testing. Therefore, in the manuscript text, we updated the diagnostic standards for patients with cirrhosis and liver cancer in the methodology section (line 105-117), as follows:
According to the national guidelines, hepatitis B patients should be classified as follows: (1) carrier: HBsAg-positive cases with no symptoms of liver diseases (e.g., nausea, vomiting, diarrhea, anorexia, abdominal pain, and jaundice) and normal ALT levels (≤40 IU/mL); (2) CHB: HBsAg-positive cases with abnormal ALT levels (>80 IU/mL) and at least one of the following: HBV infection ≥6 months prior, chronic inflammatory changes reported on abdominal ultrasound, or anti-HBc IgM negative; (3) liver cirrhosis (LC): HBsAg-positive cases with liver cirrhosis as reported via abdominal ultrasound, computerized tomography (CT) or Magnetic Resonance Imaging (MRI); (4) HCC: cases with liver lesion(s) suggestive of hepatocellular carcinoma reported via abdominal ultrasound, CT or MRI together with alpha fetoprotein (AFP) >400μg/mL; and (5) HBsAg sero-clearance: cases with HBsAg changing from positive to negative, positive or negative for anti-HBs.

[5] Names of nucleotide analogues and type of interferon used is not yet mentioned. Interferon is given subcutaneous and not intramuscular.

Response: We added the names of antivirals in the Methods section (line 122-125), as follows:

The data included personal information, the clinical diagnosis at the last visit, which was provided by the hospital, the antiviral treatment history (including Tenofovir, Entecavir, Adefovir, Lamivudine, and PEG-IFN), and the insurance status.

Kwenti Emmanuel Tebit, Ph.D (Reviewer 3): The authors have successfully addressed the points I raised from the first review. There has been a substantial improvement in the quality of the manuscript, but there are still a lot of grammatical errors littered throughout especially in the results section, which makes it very difficult to follow through. The authors should seek assistance from a native English speaker.

Response: We have addressed this issue.