Reviewer's report

Title: Prevalence and risk factors of hepatitis B and C virus infections in an urban community in Dhaka, Bangladesh

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Reviewer: Guangwen Cao

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Ashraf et al. investigated the prevalence of HBV (HBsAg, anti-HBc) and HCV (anti-HCV antibody) in the highly populated area in Dhaka, Bangladesh. A total of 1997 participants were sampled by a cluster sampling methods and serologically surveyed. Also, epidemiological risk factors of hepatitis were also investigated. It was found that the prevalence was 0.7% for HBsAg alone, 22.6% for anti-HBc, and 5.8% for both HBsAg and anti-HBs. Logistic regression analyses were also used to determine the risk factors of HBV infection. In general, this study provides important epidemiological data for evaluating future diseases burden caused by HBV and HCV infection for this community. However, there are several aspects remains to be addressed and manuscript writing should be improved before be considered for publication.

Major concerns:

1. The study population is community-based, mostly asymptomatic chronic HBV or HCV-infected population. There was no any discrimination between new/recent infection and chronic infection. Some of the adult participants might have been infected perinatally or during childhood. In this case, the risk factors elucidated in this study may not actual risk factors of HBV infection in the past. Authors should present their own idea about this point in Discussion section, not just mentioned that it is a kind of the shortcomings of this study.

2. In Abstract section, “the use of disposable needles and syringes” was not presented in the result, why did it appear in the conclusion? In addition, this data were not presented in the main text just discussed a little in Discussion section. I suggest delete it.

3. There are some confusing data presented in this paper. In Discussion section, it was mentioned that the seropositivity for both HBsAg and anti-HBc in school children had been reported to be less than 0.8%. However, in this study, the seropositivity for both HBsAg and anti-HBc in “children under 5” were around 10%. Pls clarify this point.

4. The idea discussed in Discussion section (page 12 lines 13-16) is not correct. HBsAg is the most reliable biological biomarker of HBV infection. Anti-HBc
antibody only indicates that the subjects have ever been infected, it may be either recovered or persistent infection. Pls check.

5. Serological test (page 7 lines 1-2 from the bottom and page 8 lines 1-12) should be moved to Discussion section. It should not appear there.

Minor changes

1. “eventually guide” should be “guide eventually”. Pls check split-infinitives throughout the text.

2. Pls explain “ICDDR,B” at its first appearance.

3. ...14 patients (0.7%) were seropositive for HBsAg alone. The same is true for anti-HBc... (page 9 lines 13.14) and Abstract section. Pls correct grammatical errors and unsuitable English expression throughout the text.

4. It is not an actual prospective study. Pls clarify this in Discussion.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.