Author’s response to reviews

Title: Health care workers in Pearl River Delta Area of China are not vaccinated adequately against hepatitis B: a retrospective cohort study.

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Author’s response to reviews:

Dear Editor,

We are very pleased to learn from your letter about revision for my manuscript R1 entitled “Status of HBV infection and vaccination among health care workers in a Public General Hospital: a retrospective cohort study (Ms. No. 2011913633145142)”.

First of all, we wish to thank you and reviewers for your attention and the constructive comments and advice. We have revised again the manuscript according to the comments from you and the reviewers.

Editorial request:
1) Please place the "Funding" section before the References.
2) Please change the title of the "Introduction" to "Background".

Answer to Editorial request: we have placed the "Funding" section before the References. And I have changed the title of the "Introduction" to "Background".

Point-by-point reply to Reviewers and Editor as following:
Reviewer 1: bahador sarkari

Reviewer 1’s report:

Authors have revised their manuscript based on the comments that raised about their manuscript. Their answers to the original criticisms and questions are convincing.

Answer 1 to reviewer 1’s report: We thank the reviewer#1 for the helpful comments and positive comments.

Comment 2: Level of interest: An article of limited interest.

Answer 2 to Level of interest: We wish to thank the reviewer#1 for helpful comments...
comments. I found that little is known currently about Chinese health care workers (HCWs) knowledge of HBV risk. Therefore, the aim of the present study was to assess HCWs’ HBV infection, vaccination, and seroprotection rates. And HCWs should be vaccinated not only early, but also regularly. HCWs with undetectable or low anti-HBs levels in particular should receive booster vaccinations.

Comment3: Quality of written English: Needs some language corrections before being published

Answer3: We wish to thank again the reviewer#1 for the advice which definitely help improve our manuscript. As recommended by the reviewer#1, we have revised again the manuscript, and our manuscript was edited and proofread by Medjaden Bioscience Limited(done highlight).

Reviewer 2: Maria Ganczak
Reviewer2's report:
The paper would benefit from thorough editing. The authors have to decide if to insert full stops before or after references in the brackets in the end of the sentence. The same refers to references, in some volume numbers are in bold, in some they are not.

Answer to reviewer2’s report: We thank the reviewer#2 for the helpful comments and positive comments. As recommended by the reviewer#2, we have revised the references of our manuscript. And the corresponding reference has been incorporated in revised version of the manuscript.(done highlight section).

Major compulsory revisions:

Abstract:
Comment1: The CIs for vaccination and HBs carrier rates would be of value.
Conclusion: “the rate of vaccination is disappointing low” should be written with the use of proper grammar. I would rather say “a concerted effort is needed to bring vaccination rates up among Chinese HCWs” as the paper refers exclusively to this group.

Answer1: We thank the reviewer#2 for helpful comments and advices. As recommended by the reviewer#2, we have revised Conclusion of Abstract of our manuscript. Modified sections has been incorporated in Conclusion of Abstract section of revised version of the manuscript.(done highlight section).

Introduction
Comment2: Although HBV vaccination rates are not satisfactory among HCWs in many countries, there are some good examples which should be also cited (e.g. A complete HBV vaccination among surgical nurses: a cross sectional sero-prevalence study. Vaccine 2010;28:3972-3976).

Answer2: I wish to thank the reviewer#2 for helpful comments and advices. As recommended by the reviewer#2, we have revised Introduction of our manuscript and added sentence: “Although HBV vaccination rates are not satisfactory among HCWs in many countries, there were some good examples should be
also cited in this section.” And modified sections has been incorporated in introduction of revised version of the manuscript. And the corresponding reference has been also incorporated in Introduction and References section of revised version of the manuscript.(done highlight section).

Comment3: Objectives: I would not say “…the vaccination status..of HCWs in China”. The study was conducted in 1 hospital which was not randomly selected. The same refers to l. 204, 222, 267.

Answer3: I wish to thank the reviewer#2 for good advice. As recommended by the reviewer#2, we have revised the Expression “…the vaccination status..of HCWs in China” of the Introduction of our manuscript. And modified sections has been incorporated in introduction of revised version of the manuscript(done highlight section).

Methods

The terminology and the methods used should be clarified, e.g.

Comment 4: I would not say it is a “retrospective cohort study”. Was the cohort followed retrospectively?

Answer 4: We wish to thank the reviewer#2 for helpful comments and advices which definitely help improve our manuscript. We have revised the Expression “retrospective cohort study” of METHODS section according to the advices raised by the reviewer#2. And modified sections has been incorporated in METHODS section of revised version of the manuscript(done highlight section).

Comment 5: I would not say it was “a large cohort”.

Answer 5: Thank the reviewer#2 for the advices. We have revised the Expression “retrospective cohort study” of METHODS section according to the advices raised by the reviewer#2. And modified sections has been incorporated in METHODS section of revised version of the manuscript(done highlight section).

Comment 6: . I would not state “the population is most closely representative of southern China in particular”. The study was conducted in 1 hospital which was not randomly selected.

Answer 6: Thank the reviewer#2 for the advices. And we are sorry that our descriptions on study population were not sufficiently clear. We have revised the Expression “the population is most closely representative of southern China in particular” of METHODS section according to the advices raised by the reviewer#2. Our study was conducted in a public teaching general hospital (Liver Disease Center of Pearl River Delta Area) of China. And the Pearl River Delta region is a densely populated and economically developed region in the south of China to some extent. So our modified sections “the population is most closely representative of Pearl River Delta Area of China in particular” has been incorporated in METHODS section of revised version of the manuscript(done highlight section).

Comment 7-1: The question still remains as to why that very hospital was selected for the study.

Answer 7-1: We wish to thank the reviewer#2 for pertinent comment and advice...
which definitely help improve our manuscript. And we are sorry that our descriptions on study population were not sufficiently clear. Our study was conducted in the Public General Liver Disease Hospital of Pearl River Delta Area of China. And our hospital is a Liver Disease Center of Pearl River Delta Area of Southern China. So there were many Medical workers of most Health care unit in Pearl River Delta Area of south of China who have selected our Liver Disease Center(hospital ) for routine physical examination including hepatitis B inspection and vaccination.

Comment7-2: One of how many? The authors still have not explained how many different hospitals/which types are there in the region in which the study was conducted? The reader still does not know how many HCWs live in the country/region? How many of them work at hospitals?

Answer7-2: We wish to thank the reviewer#2 for pertinent comment which definitely help improve our manuscript. And we are sorry that our descriptions on the number of study population were not sufficiently clear. And our study was based on a retrospective cohort that included 1420 HCWs were recruited from the Liver Disease Center in Pearl River Delta Area of China (820 HCWs), the People's Hospital of Tianhe District, GuangZhou (390 HCWs) and the TianHe Maternal and Child Health Hospital (210 HCWs), respectively. And 2338 HCWs were recruited initially from our Liver Disease Center, between 1988 and 2008. And 918 HCWs were excluded, and there were the remaining 1420 HCWs in our study. We collected information of vaccination status of subjects by the routine medical examination every year. The exclusion criteria were: those HCWs had no precise material on vaccination, declined the questionnaire and declined written informed consent (as figure).

So our modified sections “And our study was based on a retrospective cohort that included 1420 HCWs were recruited from the Liver Disease Center in Pearl River Delta Area of China (820 HCWs), the People’s Hospital of Tianhe District, GuangZhou (390 HCWs) and the TianHe Maternal and Child Health Hospital (210 HCWs), respectively” has been incorporated in Study population of Method section of revised version of the manuscript (done highlight section).

Figure . A flow diagram of study participants.

Comment7-3: In other words, to which extent the study population is representative of the region, of the country? There might be a large generalizability problem. Since the study was conducted among HCWs from 1 university hospital, the results may not be generalizable to all HCWs in the region/in China.
We wish to thank the reviewer #2 for pertinent comment and advice which definitely help improve our manuscript. And we are sorry that our descriptions on study population were not sufficiently concise. And our study was based on a retrospective cohort that included 1420 HCWs were recruited from the Liver Disease Center in Pearl River Delta Area of China (820 HCWs), the People’s Hospital of Tianhe District, Guangzhou (390 HCWs) and the TianHe Maternal and Child Health Hospital (210 HCWs), respectively. So the HCWs enrolled in the present study can represent Local area of the HCWs in the Pearl River Delta Area of China to a certain extent. Even so, the results of the research can not be completely generalizable to all HCWs in China or the south of China. Hence, HCWs vaccination should be further assessed by future large-scale retrospective studies. So this elaboration have been put into the “Limitations” section in Discussion of the revised version of the manuscript.

Comment 8: Why the presence of anti-HBs without anti-HBc positivity was interpreted as indicating history of HBV infection?

Answer 8: We are sorry that our descriptions on the presence of anti-HBs with anti-HBc positivity as indicating history of HBV infection was not sufficient concise, and we have modified the descriptions on determining history of HBV infection in MATERIALS AND METHODS of our revised version of the manuscript.

Comment 9: How the presence of anti-HBs and anti-HBc in vaccinated individuals was interpreted?

Answer 9: We wish to thank the reviewer #2 for pertinent comment and advice which definitely help improve our manuscript. The presence of anti-HBs, but not anti-HBc, and a history of vaccination was interpreted as indicating an effective vaccination and never having been infected with HBV. The presence of anti-HBs (without anti-HBc positivity) was interpreted as indicating history of vaccinated successfully individuals. The presence of anti-HBs (with anti-HBc positivity) and prior vaccination was interpreted as indicating history of HBV infection in vaccinated successfully individuals. The presence of anti-HBs (with anti-HBc positivity) and no prior vaccination was interpreted as indicating a history of HBV infection.

And above modified sections has been incorporated in Data collection of Methods of revised version of the manuscript.

Comment 10: Finally, the study was completed 7 years ago. The authors should explain the reasons of the publication delay and should also put it into the “Limitations” section.

Answer 10: We wish to thank the reviewer #2 for pertinent comment and advice which definitely help improve our manuscript. We apologized for the publication delay of our study. The reasons of the publication delay is due to the delay in preparing the manuscript and the submission which resulted from the rotation work in the countryside to support work of basic medical units. Above explanation has been incorporated in the “Limitations” section in Discussion of the revised version of the manuscript.
Results

Comment11: The CIs for vaccination and HBs carrier rates would be of value. Numbers of tables should be corrected.

Answer11: We wish to thank the reviewer#2 for pertinent comment and advice. We have revised the Numbers of tables including added the CIs for vaccination into Table1 and added exact HBs carrier rates into Table1 according to comment raised by the reviewer# 2. Above Modification has been incorporated inTable1,2 section in Result of the revised version of the manuscript. (done highlight).

Comment12: To show how many anti-HBc positive HCWs were in the vaccinated vs non-vaccinated group would be of value. It should be included to the “HBV infection status” sub-section.

Answer12: We wish to thank the reviewer#2 for pertinent comment and advice. We are sorry that our descriptions on the positive rates of anti-HBc in the vaccinated vs non-vaccinated group was not sufficient concise. We have revised the table1 by adding HBV infection status” sub-section of anti-HBc positive according to the reviewer#2’s advice. And above Modification has been incorporated inTable1 section in Result of the revised version of the manuscript. (done highlight).

Comment13: The authors state “HCWs should be vaccinated not only yearly but regularly” Why regular HBV vaccination is needed. On which basis?

Answer13: We wish to thank the reviewer#2 for pertinent comment. Despite the availability of free vaccination ininfancy, a target of 100% coverage has not yet been achieved in HCWs. All health care workers should be motivated and ensured for vaccination. Regular educational campaigns for health care workers are needed to increase vaccination compliance. regular HBV vaccination was a Important way to maintain higher vaccination coverage.

The above view is based on the Reference: Ali NS, Jamal K, Qureshi R. Hepatitis B vaccination status and identification of risk factors for hepatitis B in health care workers. J Coll Physicians Surg Pak. 2005;15(5):257-60. And the corresponding reference has been also incorporated in Conclusion and References section of revised version of the manuscript. (done highlight section).

With many thanks for your email, we are looking forward to your positive response as soon as possible.

Best wishes,

Yours sincerely,

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