Reviewer's report

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

Version: 5 Date: 7 September 2015

Reviewer: Maria Ganczak

Reviewer's report:

Comment 1: 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.

The Authors claim in the Cover Letter they revised the references, however they did not:
- Ref. 1, 2, 4, 5, 7, 9, 12, 14, 15, 17, 19, 21, 22, 26 use the abbreviations of journals’ titles, the rest do not
- Some references use commas after the year of references, some semicolons,
- In some references all pages are cited, e.g. 944-937, some use the last page abbreviation, e.g. 1315-41
- Some use spaces between year of publication and the volume number, some do not

There is a terrible mess and chaos in the Reference section.

Comment 2: Abstract
The CIs for vaccination and HBs carrier rates would be of value.
The Authors did not refer to this comment.

Comment 3. Conclusion: “the rate of vaccination is disappointing low” should be written with the use of proper grammar.
The Authors did not refer to this comment.

Comment 4. The terminology and the methods used should be clarified, e.g.
The question still remains as to why that very hospital was selected for the study. 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? 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.
The authors still have not explained how many different hospitals/which types are there in the region in which the study was conducted – i.e. are the 3 hospitals they studied, the only three 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 and how many in other health care facilities?

Comment 5. The authors still have problems with interpreting anti-HBs and anti-HBc results.

They claim that: “the presence of anti-HBs (with anti-HBc positivity) was interpreted as indicating history of vaccinated successfully individuals”.

What about individuals who were vaccinated for HBV and did not gain immunity? They could have been infected after vaccination and present anti-HBs with anti-HBc positivity).

Comment 6. Fifty percent (13 out of 26) of references used in the paper were published 10 and more years ago. It could be a result of the fact that the study was completed 7 years ago.

While publishing in such a prestigious medical journal as BMC Infectious Diseases the authors should cite much more up to date references.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.