Reviewer's report

Title: Health care workers in southern China are not vaccinated adequately against hepatitis B: a retrospective cohort study.

Version: 4 Date: 12 May 2015

Reviewer: Maria Ganczak

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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.

Major compulsory revisions:

Abstract
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.

Introduction

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).

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.

Methods

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

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

2. I would not say it was “a large cohort”.

3. 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.

4. 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.

5. Why the presence of anti-HBs without anti-HBc positivity was interpreted as indicating history of HBV infection?

6. How the presence of anti-HBs and anti-HBc in vaccinated individuals was interpreted?

7. 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.

Results

The CIs for vaccination and HBs carrier rates would be of value.

Numbers of tables should be corrected.

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.

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

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

Quality of written English: Acceptable

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