

Reviewer 02687374

I have reviewed the manuscript Testing for hepatitis B virus alone does not increase vaccine coverage in non-immunized persons: a prospective study. This study showed a current status of HBV vaccination in France and its aim was to screen and vaccinate non-immunized individuals using HBV-testing. However, the result was that French seemed no interest to vaccinate it and increased vaccination coverage might be achieved by emphasizing its need at the organizational level. It was a nice research about HBV vaccination, and the author did a lot of work and investigated a larger number of people. Although HBV testing alone cannot encourage non-immunized individuals towards vaccination, the author summarizes many reasons. In summary, this is a nice subject with a large of work and a high credibility.

Response: We kindly thank the reviewer for their assessment of our manuscript.

Reviewer 01548565

HBV vaccination has been shown to be effective in reducing the incidence of infection in most of countries. The result of this study indicated that HBV-vaccination after HBV screening was very low in people more than 18 years old, which appeared largely attributed to physician-patient motivation towards vaccination. Increased vaccination coverage might be achieved by emphasizing its need at the organizational level. Above results has been previously discussed in depth and are mainly based on questionnaire.

Response: We thank the reviewer for highlighting the overall message of our manuscript.

We do agree with the limitation that serological based confirmation of vaccination status was not obtained, hence why we relied on questionnaire data. Previous evaluations have demonstrated poor reliability of declared vaccination and serological results (Topp L et al, Drug Alcohol Rev, 2009; Brouard C et al, Epidemiol Infect, 2017; Nielsen US et al, Infect Dis, 2015). However, since these reports were based in populations when vaccination preceded serological tests by more than several decades, we have no idea whether questionnaire data accurately reflect true vaccination status in the context of this study (*i.e.* 3-6 months after HBV testing). In addition, we would expect a large proportion of lost to follow-up in the tested study population (particularly evidenced by the large number of participants who were unable to be contacted by telephone). This would make any confirmatory test difficult to achieve. We have described these limitations in the discussion section (page 16, paragraph 1).

The manuscript by Boyd et al. analysed data about HBV vaccination in Paris' area. The vaccination programs are not similar worldwide and the problem of HBV infection in industrialized countries is important, particularly in population at high risk of infection.

Response: We kindly thank the reviewer for their assessment and highlighting the importance of this study.

Some notes: Because of telephonic enquiry, risk of false declaration by patients about their vaccination should be taken into account; in consequence a lower rate of real vaccination coverage could be possible.

Response: We fully agree with the reviewer regarding this limitation. Previous evaluations have demonstrated poor reliability of declared vaccination and serological results (Topp L et al, Drug Alcohol Rev, 2009; Brouard C et al, Epidemiol Infect, 2017; Nielsen US et al, Infect Dis, 2015). However, since these reports were based in populations when vaccination preceded serological tests by more than several decades, we have no idea whether questionnaire data accurately reflect true vaccination status in the context of this study (*i.e.* 3-6 months after HBV testing). In addition, we would expect a large proportion of lost to follow-up in the tested study population (particularly evidenced by the large number of participants who were unable to be contacted by telephone). This would make any confirmatory test difficult to achieve. We have described these limitations, including the possibility of lower vaccination rates, in the discussion section (page 16, paragraph 1).

It could be interesting to know the origin continents of patients; if possible, please specify.

Response: We have now added the participants' continent of origin to the text (page 11, paragraph 2).

Most of the people included in the study had social and/or economical problems. These situations need more general approach of social inclusion, in which vaccination is only one aspect. This should be stressed and discussed.

Response: This is indeed an important discussion point. We have now added a short paragraph concerning the need for general social inclusion in participants with more prevalent socio-economic difficulties (page 15, paragraph 1).

Primary care services have a fundamental role in the education of patients. Their involvement in the information of people about the need of HBV screening and vaccination should be underlined.

Response: We concur that this important issue is relevant to our study population. We have now included some discussion on the role of primary care services for vaccination (page 15, paragraph 1).

Although the limits, also recognized by authors, the study is interesting and underlines the importance of implement vaccination program, particularly in population at higher risk. On the bases of the results of the present study, the authors should suggest new approaches useful in increase the number of vaccinated against HBV infection.

Response: We thank the reviewer for their comments. We have now included a paragraph in the discussion devoted to useful approaches to increase vaccination rates (page 15, paragraph 1). However, more concrete evidence would be needed before we can suggest which proposals would be more useful.

Reviewer 03020633

Dear Authors, 1. This study is of somewhat significance in HBV low-epidemic area. I think that it will be more meaningful if the study was carried out in high risk population.

Response: We kindly thank the reviewer for their comments. We do agree that by conducting this study in high risk populations, we would obtain a more complete understanding of testing and vaccination strategies in these target groups. However, we stress that a wide range of high risk groups were included in our study and were considered in the risk-factor analysis (Table 3), thus we do have some notion on the impact of this strategy in these subgroups.

2. The titer of serum HBsAb was not clearly indicated in the subjects. This made it hard to confirm the people who insufficient response to vaccine (0-10 mIU/ml), while these subjects need strengthen immunization.

Response: We unfortunately did not collect data on anti-HBsAb titers and as the reviewer pointed out, we could not evaluate whether booster vaccinations were necessary in tested patients. Nevertheless, the target population for this research question was strictly non-immunized persons. We now give mention as to whether

the test and vaccinated strategy could work for those with weak anti-HBsAb vaccine response (0-10 mIU/mL) (page 16, paragraph 2).