Reviewer's report

Title: Booster Vaccination of Adolescents Does Not Prevent Hepatitis B Infection: A Cross-sectional School-based Study

Version: Date: 18 June 2014

Reviewer: Noele Nelson

Reviewer's report:

Major Compulsory Revisions

Table 2, school year 2008/2009 (15 years old), (+) HBsAg, chi-square is not the appropriate test since at least 20% of the expected frequencies are less than 5. Please clarify if the Yates correction was employed for this analysis. If not, the analysis should be repeated using the appropriate statistics.

In addition to the overall results for Table 1 (age), include a subanalysis (chi-square test results) for 6-12 years old and 15-18 years old separately. Update the results section accordingly (line 38-43).

Minor Essential Revisions

Methods, paragraph 2, line 101, it is stated, “Therefore, we excluded 906 individuals born before January 1st, 1987 from our study due to no vaccination record being available to confirm their vaccination status.” Line 277-278, “Although we did not have vaccination records for all individuals, we are confident that most of them had completed their vaccination schedule due to the high vaccine coverage rate in Taiwan.” Please clarify how it was determined if an individual was excluded, and what percent of subjects had available vaccination records and how the results might have been effected by lack of vaccination confirmation in some individuals.

Methods, paragraph 2, line 101-10, State that recombinant vaccine administration (3 dose series) was not confirmed for all subjects.

Methods, paragraph 3, line 116: Clarify what is meant by “unlinked study”

Methods, paragraph 3, line 116-117, “Due to our retrospective study…” should be moved to the paragraph above or clarify that “these study subjects” refers to the pooled subjects who enrolled twice.

Methods, paragraph 3, lines 117-125, Add a description of the longitudinal subgroup analysis

Results, Part II: Longitudinal Subgroup Assessment, line 167, “Taiwan” should be inserted before ACIP to distinguish the Taiwan ACIP recommendations from the United States ACIP recommendations.
Discretionary Revisions

Consider breaking the methods into “epidemiological study” and “longitudinal subgroup” for better clarity and consistency with the results.

Consider adding a sub-title for the sections describing the subjects who entered into the study more than once for better clarity.


Table 1 and 2: Consider adding the frequency (percent) of (-)anti-HBs and (-)HBsAg for ease of reader calculation of the Chi-square test.

Minor issues not for publication

Abstract, Results, lines 46-47: change wording to “a marked increase” instead of “markedly increase”, and insert words in this phrase, “among the subjects who received a booster dose”, and “HBV booster contributed to a marked increase in seropositive rates of anti-HBs among the subjects who received a booster dose either at 12 years of age or 15 years of age.”

Table 2: Remove “or” from caption

Level of interest: An article of importance in its field

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

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

Declaration of competing interests:

I declare that I have no competing interests.