Reviewer's report

Title: Sero-prevalence and risk factors for Hepatitis B infection among health care workers in a tertiary Hospital in Uganda

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Reviewer: Elisabeth BOUVET

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Report concerning a manuscript on
« sero prevalence and risk factors for hepatitis B infection among health care workers in a tertiary hospital in Uganda”
The question is well defined and pertinent.
Nevertheless, study design and presentation of results are not satisfactory.
There is little information on hepatitis B status among health care workers in Africa.
When you read international recommendations on HCW’s protection in Africa, all of them recommend generalized vaccination against hepatitis B. Nevertheless strategy for vaccination should be determined by prevalence of hepatitis B serological markers in the population.
Moreover, the risk of infection is high in community and the part of transmission related to health care is unknown and probably quite low. The situation is highly different from western countries where prevalence among general population is low.
The study presented here was conducted in Mulago hospital in Uganda in 2003. A cross sectional study was done on health care workers only.
Several comments:
We don’t know what was the rate of random.
We don’t know how many people accept or refuse the survey. So finally we don’t know what is the proportion in each category of personnel who participates.
The questionnaire is built as exposure to blood in hospital was the single risk factor for hepatitis B infection.
In fact, a very surprising result is shown without explanation: individuals who have been longer in service had lower prevalence … for AgHBS which is a marker of infection acquired during childhood. Does it means that the risk in young generations has changed? or that people AgHbS positive are no more working in hospital because of death or complications of chronic hepatitis?
Authors should have separate prevalence of AgHBS which is more likely to be the consequence of infection acquired at birth or during childhood from infection characterized by anti Hbc +/- anti HbS more likely to be secondary to infection
acquired in adult age.

I don’t agree with the introduction of religion status in risk exposure and serological analysis.

Tables are not easy to read and need more work to do analyses more accurate. It would have been interesting to look at serological status in a control population, for instance people working in hospital administration to get an idea of what is the part of occupational infection among all hepatitis B infections.

In summary this works brings a lot of information but the manuscript doesn’t fulfil criteria for publication. It needs to be shortened and synthesized, we need a control population, to compare Ag HBS + / Hbc + etc…

A discussion on different vaccination strategies is necessary to conclude the paper.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.