Author's response to reviews

Title: Epidemiology of rotavirus infection among young children with acute diarrhoea in Burkina Faso

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Version: 2 Date: 2 October 2010

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Title: Epidemiology and burden of rotavirus infection among young children with acute diarrhoea in Burkina Faso

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Editors, BMC Pediatrics

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Re: Epidemiology and burden of rotavirus infection among young children with acute diarrhoea in Burkina Faso

Dear Editor,

We sincerely appreciate the favorable review of our work and your helpful comments from both reviewers. Please, read below a point by point reply to each observation from editorial and reviewers. The changes in the revised manuscript are in red.

We hope that the revised version of the manuscript meets all requirements for publication,

Yours faithfully,

Bonkoungou Juste Isidore
Reviewer's 1 observations:

The title can be unsuitable if the calculation of the rotavirus disease burden in the whole population of Burkina Faso does not appear in the results. If no, title could be changed, e.g. “Epidemiology of rotavirus infection among young children with acute diarrhoea in Burkina Faso” (minor essential revisions).

We accept this revision of manuscript title and accordingly the title “Epidemiology of rotavirus infection among young children with acute diarrhoea in Burkina Faso” has been taken into account in the revised form of the manuscript.

Reviewer's 2 observations:

The authors presume that their study will help to implement the currently available rotavirus vaccine. It is not clear from the study which vaccine will be suitable for Burkina Faso like monovalent or pentavalent rotavirus vaccine?

The objective of this study was to assess epidemiology of rotavirus disease among children in Burkina-Faso before rotavirus vaccine introduction, whatever the particular vaccine. The pertinence of a particular vaccine will be discussed in a further publication including information about the genotypes of rotavirus strains circulating in Burkina-Faso.

It will be easier to understand if they provide the sensitivity and specificity of the kit that they used in the study by referring other papers. We didn’t find other papers to compare the sensitivity and specificity of the kit.

Antigen detection of the kit used was evaluated with the control group in our case.

Some vaccine trials for rotavirus infection study recruited 6, 8 and 10 weeks old infants. But in the current study the median age of the children were 8 months. Were the authors biased to recruit the participants?

As stated by the reviewer, some vaccine trials recruited infants considering their age following the indications of age groups for these vaccines. In our case we used rotavirus surveillance criteria as recommended WHO standard form survey that select all children less than 5 years of age with acute diarrhea to include a larger population with the aim to study the distribution of the rotavirus gastroenteritis during the childhood.

Inpatients children was more infected with the rotavirus than the outpatients. Is there any outbreak of rotavirus infection during the study period?

As reported in the manuscript, data collection was 16 months period and the seasonality variability is well represented. We could not strictly exclude the inclusion of outbreak cases during the peak season for rotavirus diarrhea because of the difficulty to distinguish these cases during context of high circulation of rotavirus. To our knowledge, no particular rotavirus outbreaks were reported during the study period.
The authors concluded that the breastfeeding children were less infected with rotavirus than the bottle-feeding children. Still there are many controversies regarding this statement.

We agree that the breastfeeding effect on rotavirus infection remains an elusive question but our epidemiological data goes with those of many research publications stating the lower incidence on rotavirus infection in breastfeeding children as well as others pathogens responsible of childhood diarrhea.

There is no limitation regarding the study.

Editorial points

Ethics - Experimental research that is reported in the manuscript must have been performed with the approval of an appropriate ethics committee.

The study protocol was approved by the Ethics Committee of Burkina Faso and has been included in the methods section.

Consent - Informed consent must also be documented. Please elaborate on this, and specify whether patient consent was oral or written.

Parents of all the paediatric patients were informed on the study details and their oral consent was obtained before stool specimen and epidemiological data collection during the course of treatment. Written consent was obtained from parents of the control group and has been included the methods section.