Author's response to reviews

Title: Clinical outcome of pneumococcal meningitis during the emergence of penicillin-resistant Streptococcus pneumoniae: an observational study

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Author's response to reviews: see over
Dear Editors,

Thank you for the opportunity to publish in *BMC Infectious Diseases*, and to respond to additional comments from the first reviewer.

Below are responses to the reviewer’s questions and explanations for revisions included in the manuscript.

Additional questions from Referee 1:

The revised version suggests that the increased mortality associated with penicillin-resistance is not due to discordant penicillin therapy - indeed the authors suggest it may be due to prolonged time before therapy is commenced - if this is the explanation (as it may be) then there may be a differential in time to commencement of appropriate therapy between pen-resistant and susceptible strains - was this looked for? Also it may be that previous oral betalactam antibiotics may mitigate somewhat the poor outcome for susceptible strains but have no such impact on resistant strains - was information collected on previous betalactam therapy?

**Response:** We looked at time from reported onset of symptoms to date of hospitalization, which was not associated with case-fatality. Children with penicillin-resistant infections tended to have longer delays from onset to hospitalization (median, 3 days) compared to children with penicillin-susceptible infections (median, 2 days), although the difference was not significant. We have added two sentences to the Results, page 12, to provide the available data for readers.

Case patients and caregivers were asked about antibiotic use in the previous six months (as a potential risk factor for infection with penicillin-resistant pneumococci), but data were not collected on antibiotic therapy for the present illness prior to hospital admission, nor did we ask about class of antibiotic received in the past six months. Because data on antibiotic use in the previous six months were not included in the analyses, we have removed this from the Methods, on page 7.

We have highlighted the above changes in red font, and have submitted both mark-up and clean copies of the revised manuscript.

I will serve as the corresponding author during the submission process—please note that my address has changed. Dr. Albert Ko will serve as corresponding author should the manuscript be accepted for publication.
Thank you on behalf of all the authors,

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