Reviewer's report

Title: Sequelae after bacterial meningitis in Niger: a cohort study

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Reviewer: Andrew Vyse

Reviewer's report:

This is an interesting paper and addresses a topic for which there are only limited published data available. It therefore makes a useful contribution to a knowledge gap that currently exists in the field of bacterial meningitis.

Minor essential revisions

• Since this study took place in a region of the African Meningitis belt which is affected by regular epidemics of meningococcal disease a summary of the epidemiology of meningococcal disease in the region could be useful to include in the Introduction.

• MenAfriVac (a MenA conjugate vaccine) was recently introduced into the African Meningitis Belt. This vaccine is mentioned in the Discussion but a background sentence referring to this in conjunction with any relevant epidemiology might be useful to include in the Introduction.

• For completeness it may be useful to also refer to and include K Edmond et al (Global and regional risk of disabling sequelae from bacterial meningitis: a systematic review and meta-analysis. Lancet Infect Dis 2010; 10: 317-28)

• Improved appropriate patient management and rehabilitation measures are highlighted in the Conclusions. However, I feel some mention of the role of vaccination as a preventative measure in addition to improved medical care should be included in the Discussion. A vaccine protecting against serogroup A disease is now being routinely used in the region as historically this has often caused the majority disease. However, W-135 has emerged in the region and is currently now an important cause of disease, with the majority of bacterial meningitis studied in the paper caused by meningococcal serogroup W-135. What are the implications for now considering a vaccine for the region that also includes W-135, particularly since several are available…?

Discretionary revisions

Whilst there is some published material available describing the sequelae following bacterial meningitis in general, studies describing sequelae following meningococcal disease specifically currently represent a major gap. The majority (94%) of the cases included in this study are due to Neisseria meningitidis with only 5 cases due to other bacteria that can cause meningitis. There is therefore an opportunity to change the focus of this article from bacterial meningitis in general to meningococcal disease specifically. This would reflect the study more accurately, address an important knowledge gap and also make the paper more
unique, and may be something the authors might want to consider.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.

However, please note that I am employed by a pharmaceutical company that has an interest in meningococcal vaccines.