Reviewer’s report

Title: Effect of the 2015 earthquake on pediatric inpatient pattern in a tertiary care hospital in Nepal.

Version: 0 Date: 29 Jun 2017

Reviewer: Matthew Ellis

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Effect of 2015 earthquake on pediatric inpatient pattern in a tertiary care hospital in Nepal

General comments

The authors compare two samples of their inpatient population (n approx. 1000) in the 15 weeks following the earthquake. They analyse patient demographics and presenting complaint according to district of residence (classified as earthquake affected or not) and separately as to whether their home was actually affected. They demonstrate a modest excess in pneumonia, acute gastroenteritis and glomerulonephritis cases amongst those living in earthquake affected districts, however when focussing on the 50% of the population from earthquake affected districts who reported home damage (n=327) only gastroenteritis met their predefined significance cut off (p<0.05). If there is a causal associations with the earthquake then this might be expected to be a marker of greater impact which rather goes against the authors' hypothesis.

The authors looked for a change in their admission pattern following the earthquake and actually detected very little change. As a specialist children's hospital serving in large part the neighbouring conurbations of the Kathmandu Valley their admission pattern may be expected to pick up significant spikes in disease occurrence in the Valley. Their observation of little difference in disease patterns amongst admissions from affected and unaffected areas is perhaps testament to the primary care efforts immediately following the earthquake.

It would be interesting to combine this data with community based data from the effected districts to get a fuller picture of the post earthquake epidemiology.
Specific comments
It is hard to judge the degree of geographical selection amongst the admitted population without fuller data on district of residence. As always attempts to infer epidemiological findings from in patient data are difficult due to problems of bias. Those children admitted from outside the valley are more likely to be a selected population. It would have made interpretation more transparent to have an idea of the population from the Valley compared to the more outlying population.

The glomeronephritis case series is intriguing - the statistical test applied for trend isn't specified in the methods.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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