Reviewer’s report

Title: Hospitalizations for varicella in children and adolescents in a referral hospital in Hong Kong, 2004 to 2008: A time series study.

Version: 1 Date: 27 September 2010

Reviewer: Luan-Yin Y Chang

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Overall comment:
This article reported the epidemiology of varicella in paediatric patients hospitalized at a tertiary referral hospital in Hong Kong from 2004 to 2008, and to explore the possible association between the occurrence of varicella infection and various climatic factors. The author found that lower relative humidity is associated with higher number of paediatric varicella hospital admissions.

Major Compulsory Revisions
1. Result on Page 8 (lines 3-4) described that “However, monthly mean air temperatures and monthly rainfall, at lags of zero to two months, were not associated with the monthly number of varicella cases” but Table 1 shows that rainfall at lags of zero was significantly associated with the monthly number of varicella cases ($r= -0.294, p<0.05$). Which is correct?
2. If Table 1 is correct, that is, both humidity and rainfall were inversely correlated with varicella cases at lag of zero, why not reported the best fitting model with GEE analysis, ARIMA Model between rainfall and varicella cases?
3. Was there any confounding, interaction or correlation between rainfall and humidity? If there was, it should be taken into consideration and be adjusted during analysis.

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

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:
'I declare that I have no competing interests'