Reviewer's report

Title: Early warning detection of heat wave morbidity using syndromic surveillance in emergency departments.

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Reviewer: Sari Kovats

Reviewer's report:

This is an interesting paper that addresses the emerging public health problem of heatwaves and health protection. However, it does not adequately address several key questions regarding health surveillance for heat waves.

The data for analyses is limited (less than one year) and so it is difficult to interpret the results based on a single heatwave event.

The introduction could describe in more detail how syndromic/health surveillance is used in the current France NHWP (national heatwave plan) – and how this paper adds to current practice. It would be very useful to discuss how ED data compare as surveillance tool to mortality data, or to temperature alone?

Some attention to language is needed here – the statement at the end of page 4 needs to be clarified. It is important to note that there is very little evaluation of the effectiveness of heat wave plans or heat wave alert systems. Ref 8 is about meteorology and so it is not clear how the system “proved itself to be truly effective”.

In the methods- it is not clear how the on alert periods were defined – using the single national series or the city-specific thresholds (which were based on mortality ?), if the latter, then were the on alert periods also city specific?

Results – It is not clear why renal failure or renal colic are recommended as indicators when there is not a big effect of the heatwave on admissions.

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'