Reviewer's report

Title: Do Pediatric Emergency Departments Pose a Risk of Infection?

Version: 1 Date: 8 November 2010

Reviewer: Monina Klevens

Reviewer's report:

General comments: This was a pilot study conducted in a large pediatric teaching hospital. About 4000 children <5 years of age are seen in this ED each month. A convenience sample of children was selected during Feb-Apr. and divided in 2 groups. The choice of the comparison group is clever, since children visiting an ED are probably more similar to each other than to other children. Trained interviewers conducted brief telephone data collection. Incidence of new infections was compared in children with and without an ED visit in the previous week.

Environmental samples may have been helpful to pilot along with the patient interviews. It is unclear how the authors would hypothesize that transmission of infections would occur in the ED – patient to patient? Indirect? Poor infection control practices?

Specific comments:

Abstract – there is literature about infections transmitted in ambulatory care, need to be more specific here that none from pediatric ED visits. Conclusions are overstated, given that this was a pilot study. Suggest change to reflect generalizability of findings is to children visiting an ED (probably a minority of children) during winter months in this facility.

Methods –

Page 4 – Describe the sample size here, and how n=320 was determined.

Page 5 – Suggest authors develop a timeline graphic to compare timing of interview with history and exclusions by group.

Page 6 – Clarify if age and sex were requested during interview or obtained from ED records.

Results -

Page 7 – Fever was listed among outcomes to classify as infection but is listed here. Sum of these 3 conditions is 63 – specify if some children had >1 outcome.

Page 7 – Suggest authors present the main important stratified results in a table where univariate and multivariate are shown side by side for each of the characteristics evaluated (e.g., intra-familial infectious contact, passive smoking, daycare attendance, etc.).

Page 8 – It’s unclear how useful the statistics on children with a recent ED visit may be, since this pilot study finds no evidence of an infection transmission risk
during ED visits.

Discussion-
Page 9 – No need to include values for OR’s in this area.
A missing component is the background rate of new infections (either GE or RTI) during these months in children this age in the general population. Is 19.7% overall high? In addition - discuss what action should follow this pilot study?
Page 11- Authors are cautioned to avoid speculation since the sample size was very small.

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

**Declaration of competing interests**: I declare that I have no competing interests.