Author’s response to reviews

Title: VALUE OF PARENTAL CONCERN AND CLINICIAN’S GUT FEELING IN RECOGNITION OF SERIOUS BACTERIAL INFECTIONS: A PROSPECTIVE OBSERVATIONAL STUDY

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Editorial board
BMC Pediatrics

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Dear Editors,
On behalf of the group of authors, I thank you for your consideration of our original research article entitled “Value of parental concern and clinician’s gut feeling in recognition of serious bacterial infections: a prospective observational study” by Urzula Nora Urbane, Dita Gaidule-Logina, Dace Gardovska, and Jana Pavare, for consideration for publication in BMC Pediatrics.

We have carefully read the suggestions and comments made by the editor. The technical corrections have all been addressed. We also have thoroughly examined the medical records of the hospital to identify the visits by febrile patients to the Emergency department and provide the information requested by the editor. The following letter provides our answers to the editor comments.

We would also like to note that we have used “track changes” to display the corrections we have made to the manuscript, and the line and page references stated in the responses to reviewers are in
accordance to the version where these changes can be viewed.

Thank you again for your consideration!

Sincerely,

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Response to Editor Comments

Editor comment No. 1: Abstract - line 44: "Fourty" should be changed to "Forty"

Response to EC No.1:  
Thank you for the correction. The change has been made and can be viewed in line 43 on page 2 in the revised version.

Editor comment No.2 Lines 106-108 and Lines 119-121 are repetitive. Please reword the paragraphs and/or consolidate the information to avoid repetition

Response to EC No.2:  
Thank you for the suggestion.  
To avoid repetition between (former) lines 106-108 and 119-121, the lines 116-118 on pages 5 to 6 of the edited version of the manuscript now read as follows: “Patients aged 0 to 18 years who presented to the ED between October 2017 and July 2018 with fever (body temperature above 38°C) or history of fever during the day of admission to the ED were enrolled in a prospective observational study.”

Editor Comment No. 3: Line 135 - "fill" should be changed to "complete"

Response to EC No.3:  
Thank you for the correction. The change has been made and can be viewed in Line 129 on page 6 of the revised version of the manuscript.

Editor comment No 4: Line 193 - remove "of participants", and change "was filled by" to "was filled in by"

Response to EC No. 4:  
Thank you for the correction. The change has been made and can be viewed in Line 194 on page 9 of the revised version of the manuscript.

Editor comment No.5: Line 208 - please change "hospitalized in intensive care unit" to "hospitalized in the intensive care unit"

Response to EC No. 5:  
Thank you for the correction. The change has been made and can be viewed in Line 209 on page 10 of the revised version of the manuscript.

Editor comment No.6: Table 2 is somewhat confusing as the sensitivities and specificities are referring to different conditions (presence of SBI and absence of SBI). Please change this to two separate tables.
Table 2 should provide information on the diagnostic value for the presence of SBI, and include data on "Gut feeling" and "Parental concern"

Table 3 should provide information on the diagnostic value for the absence of SBI, and include "sense of reassurance" data

Response to EC No.6:
Thank you for the suggestions. As requested, the table has been split in two, Table 2. in the edited version of the manuscript now provides information on diagnostic value of “gut feeling” and parental concern for the presence of SBI, whereas Table 3 provides information on the diagnostic value of sense of reassurance for the absence of SBI. These changes can be viewed in lines 225-234 on page 11 of the revised version.

Editor comment No. 7: A major outstanding concern for this paper is selection bias. Although the authors describe some difficulties in identifying the exact numbers of febrile patients presenting to the ED during the study period, it would be very useful to have this information. Is it possible to determine how many ED presentations occurred with fever during the time the study was ongoing (either during the hours the investigators were conducting the research and/or the days that the research was being conducted)? Or is it possible to determine how many children were seen by the "direct access paediatrician" during the study period (and would have presumably been excluded from participating in the study)? Is it possible to identify the number of children who presented with fever between the study dates? E.g. XXXX patients with fever were evaluated in the ED during the study period. Of these, XXXX were seen by a direct access paediatrician, while the remainder were seen in the main part of the ED and eligible to participate in the research project. The study included 162/XXXX patients (XX% of eligible presentations) aged 2 months to 17.8 years.

Response to EC No.7:
Thank you for the comment.

We have invested significant effort in identifying the presentations of febrile children to the Emergency Department of the hospital during the study period. According to the information available in the electronic medical records, between October 2017 and July 2018 there were 6451 children with fever seen in total, of whom 1869 were triaged to be seen by the direct-access paediatrician.

According to this information, 4582 children were eligible for the study between the study dates. On the days of recruitment (24 hours between the start and end of the date), which were 8 to 10 days in each month, 2007 children presented to the emergency department, 529 of whom were referred to the direct-access paediatrician. Therefore, 1478 patients were eligible, of which 266 were approached, and 162 were enrolled.

Unfortunately, the data on how many children with fever were present at the emergency department during the exact recruitment hours are not readily available. However, as the methodology states, all children who were considered eligible during these hours (which implies that not only they were present at the ED at the moment, but also that their investigation results had not been seen by their doctor) were approached.

We have changed the text of the manuscript to include this information (lines 173 to 188 on page 8):
“Participants

Between October 2017 and July 2018, 6451 children were evaluated in the ED. Out of these patients, 1869 were triaged to be evaluated by the direct-access paediatrician, and the remaining 4582 children were seen at the main part of the ED and were considered eligible to participate in the study.

The recruitment occurred over 88 days during the study period. During the selected study dates, 2007 children with fever presented to the ED, 1478 of whom were seen at the main part of the ED and were eligible for the study. All patients who were present during the recruitment hours and satisfied the conditions described in Methods were approached, and each day one to six patients were enrolled.

Overall, 266 patients were approached. Twenty-four patients were excluded as the clinicians did not manage to fill the clinician questionnaire before viewing the investigation results. Forty-six parents refused participation in the questionnaire, and 33 failed to submit the completed questionnaire within the specified time period. One patient was excluded as the evidence on the parental questionnaire suggested it was filled by the child and not the parent. In total, the study included 162/4582 patients (3.5% of eligible presentations) (162/1478 or 11% of eligible presentations on the recruitment dates)."