Reviewer's report

Title: Nasal and perirectal colonization of vancomycin sensitive and resistant enterococci in patients of paediatrics ICU (PICU) of tertiary health care facilities

Version: 2 Date: 27 September 2012

Reviewer: Maja Weisser

Reviewer's report:

Dear authors

In this prospective observational single-center study you report data of rectal and nasal swabs examined for the presence of enterococci in 110 children from a pediatric Intensive Care unit (PICU) in Pakistan.

Major compulsory revisions

1. The study aim should be better defined: was the aim to describe local epidemiology?
2. Parameters of inclusion are lacking:
   - time period of inclusion of patients ? (year, month ?)
   - were patients included consequetively?
   - were patients admitted from home, from other units or from other hospitals?
   - when was the exact time point of sampling (at admission)?
3. English spelling is poor with many orthographic mistakes. Please consider sending the manuscript for language review
4. From the BAA plate : how were colonies selected, at random ? Knowing that patients are usually colonized with different enterococcal strains this is a relevant point and should be adressed.
5. Unclarities in the result section should be adressed :
   - What stands the p-value for in the first 2 paragraphs oft he result section
   - Results for resistance should be shown separately for E. faecium and E. faecalis, as these are two quite different species.
   - The authors write in the result section, that resistance patterns were similar in rectal and nasal Swabs. In the abstract they note that there were differences. I suggest, that a statistical analysis only in patients who had a detection of the same enterococcus species in nasal and rectal swab should be done, if numbers allow to do so.
6. In the last paragraph of the result section entitled ‘Association between clinical diagnosis and enterococcal colonization’ pneumonia is presented as a factor associated with enterococcal colonization, which is an interesting finding. Nevertheless, authors should show baseline characteristics in a table and declare, which factors they analysed for a potential association with enterococcal colonization. Also here, a separate analysis for E. faecium and E. faecalis would be useful.

7. In the discussion, the findings should not be repeated but discussed with respect to published literature and novelties found in this study.

Minor compulsory revisions

Abstract
1. Separate Methods and Results paragraph
2. Many spelling errors, please correct (e.g. ‘pathogen’ instead of ‘pathogne’; ‘Rawalpindi’, PCR instead of PRC….)

Introduction
3. Spelling errors: e.g. ‘isolation’, ‘persistantly’, ‘methicillin resistant’

Methods
4. Microbiological workup is described very detailed for an epidemiological paper and could be shortened with citation of the literature. In particular no new laboratory methods are presented.

Results
5. Refer to Table 2 in the first paragraph
6. Statistical analysis. I suggest to delete the title of this paragraph and to show clinical patient data here. Is the indicated duration of patient stay during the whole hospitalization or before swab?

Discussion
7. Please comment on possible explanations of the discrepancy of resistance testing between rectal swab and nasal swab, are these due to small numbers or is the hypothesis, that patients are colonized with different E. faecium and E. faecalis strains in the nose/gut? Do different enterococci colonize preferentially different sites?
8. Please discuss potential bias due to low sensitivity of rectal/nose swab cultures
9. If you postulate that simultaneous colonization with enterococci and staph aureus might be a reason for emergence of VISA, please show data (own or from literature) and discuss, what your study adds in this respect.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited
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