Reviewer's report

Title: Nasal Carriage and Antimicrobial Susceptibility of Staphylococcus aureus in healthy preschool children in Ujjain, India

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Reviewer: Jan L Nouwen

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GENERAL

This is a nice straightforward cross-sectional study on S. aureus nasal carriage and antibiotic resistance in a large cohort of young children under-5 in India. The main finding is the rather low prevalence of SA nasal carriage in this cohort, which is not really explained by the authors.

MAJOR COMPULSORY REVISIONS

There are several major comments I have on this article:

1] for the message of their study, this article could easily be condensed into a 'brief report'. Mainly is the discussion, the authors spend to much effort into the antimicrobial resistances found, without having typed the respective SA isolates (for instance SCC MEC typing, or PFGE).

2] Furthermore, the authors conclude that 'targeted screening based on risk factors, isolation and decolonization could be effective in preventing further spread of resistance in the community' (page 13). However, using their 'risk factors' the identification of a child carrying MRSA will only go up from 1% (6%*16%) up to 4%(6%*16%*4), while (as can be read from table 1) 26.8% of children had been prescribed antibiotics in the last 2 weeks, which in my opinion is a 'massive' percentage. In my opinion, to prevent spread of resistance in the community, focus should be on 'prudent antibiotic use' and 'simple hygienic measures' much more than on trying to identify children carrying resistance SA strains. This should be discussed by the authors.

3] Another issue, is the antibiotics tested. I cannot understand why the SA isolates were tested for 6 different quinolones, 3 3rd generation cephalosporines, 2 aminoglycosides and 2 glycopeptides. Also, I do not understand why MRSA isolates are tested for amoxicilline, amoxicilline-clavulanic acid, cefixime, ceftriaxone and cefoperaxone. I imagine that in a resource-contrained setting, resources could be used more effectively.

4] in the whole article, no clear distinction is made between carriage and infection. For a clear discussion, this distinction should be made very clear.

MINOR ESSENTIAL REVISIONS

1] page 4, 3rd paragraph: also MSSA can cause complicated infections; in that respect MRSA is not different from MSSA.
2] page 6, 1st paragraph: This was a cross-sectional study, with data-collection from nov 2007- feb 2009!

3] page 11, paragraph 2: there are data that in resource-limited settings, children and adults are more prone to be colonised with gram-negative bacteria (E. coli, Klebsiella etc.) instead of SA, which could contribute to the low SA carriage rate found. Please discuss.

4] page 12, paragraph 2: the relation between hygiene and day-care absence and SA carriage is not explained. please remove.

5] table 2: 'Child attends' numbers are mixed up between Positive and Negative!

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

**Quality of written English:** Acceptable

**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.