Reviewer's report

Title: Decreased Streptococcus pneumoniae susceptibility to oral antibiotics among children in rural Vietnam - A community study.

Version: 1 Date: 2 January 2010

Reviewer: Christopher Parry

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Antimicrobial resistance in Streptococcus pneumoniae is an important global public health problem. This study has demonstrated very high levels of antimicrobial resistance to common antimicrobials in the nasopharyngeal pneumococcal isolates of a representative sample of children in a rural population in Vietnam. This is of note because previous studies have documented high levels of antibiotic resistance in urban children in Vietnam but usually lower levels in the rural population. Resistance to co-trimoxazole, erythromycin and tetracycline was the commonest pattern seen and higher levels of cotrimoxazole and erythromycin resistance and multidrug resistance were observed in mountainous areas. Of considerable concern was the limited options available for therapy of pneumococcal disease and the small number of isolates with an MIC > 32 mg/L for benzyl penicillin and cefotaxime.

Minor essential revisions

Methods

1. Page 8. MDR was defined as resistance to 3 of 6 antibiotics – but nine antibiotics were tested. I assume PenG/PenV/Amp/Amox were grouped together as a single class. If so it would be worth noting this.

2. Page 8. In the analysis were the ARI symptoms considered at the time of the sampling or any time in the preceding three weeks?

Results

1. Page 11. Was a relation demonstrable between specific antimicrobials used in the preceding three weeks and susceptibility of the isolated organism?

Discussion

1. Page 12. Why were the resistance rates higher in mountainous areas? Is antimicrobial usage higher in those areas?

2. Page 12. What are the reasons that the vaccine is not effective in many countries? Does it depend on serotype distribution or other reasons? I think it would be helpful to briefly expand this comment.

Discretionary Revisions

Discussion

1. It might be worth mentioning that the increasing pattern of resistance in pneumococci isolated from rural locations in Vietnam has also been noted in

2. Although not specifically addressed in this study, do the authors consider that the spread of specific resistant pandemic clones (e.g. Spanish 23F) may have a role in contributing to the increase in resistance seen in this area?

**Level of interest:** An article of importance in its field

**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