Reviewer’s report

Title: Nasal Carriage of a Common Clone of Community-Acquired Methicillin-Resistant Staphylococcus aureus among Kindergarten Attendees in Northern Taiwan

Version: 1 Date: 17 March 2007

Reviewer: Kevin Purcell

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Title

The title was appropriate and reflected the content of the article.

Abstract

The last sentence of the results is missing some words. It should probably read: PVL genes were found in 100% and 0% of the CA-MRSA and the CA-MSSA colonization isolates, respectively. The first sentence of the conclusion should be reworded “featuring high clindamycin resistance” instead of “featuring high macrolide resistance”. The high clindamycin resistance is the unusual finding, not the high macrolide resistance.

Background and Objective

The background laid the foundation for why the study was conducted. The study objective was clear – to determine the prevalence of CA-MRSA colonization of the anterior nares among healthy attendees of a kindergarten.

Methods

In the first sentence of the study subjects section of the methods the word “prospective” can be struck. It is simply a point prevalence study.

There is mention of study approval by an IRB, but no statement of whether informed consent was required. This should be stated.

The age classification is a little confusing due to the overlapping numbers. For example, does the toddler group (2-4 years) include children that are 2, 3, and 4 years old or just those that are 2 or 3 years old? If a child is 4 years old, is he/she a toddler or an older toddler (4-5 years). My assumption is that the toddler range is 2 years 0 months to 3 years 11 months and the older toddler range is 4 years 0 months to 4 years 11 months.

In the last paragraph of the study subjects section of the methods it mentions that subjects were eligible if they didn’t suffer from any acute medical problem. This needs to be more clearly defined or eliminated.

In the first paragraph of the cultures and questionnaires section of the methods it delineates the MRSA risk factors assessed. Some of them need to be more clearly defined. Is the history of a surgical procedure and the history of endotracheal intubation within 12 months before the date of MRSA isolation? If so, state it. The presence of what types of underlying chronic disorders was assessed? I think it helps to more clearly define this (e.g. were allergies and asthma considered or just things like heart disease, neurological...
disease, etc). When referring to a household contact with an identified risk factor, were only the preceding risk factors in the article considered or were others also evaluated (e.g. IV drug abuse, recurrent skin infections)?

Results

In the prevalence of S. aureus and CA-MRSA nasal carriage section of the results, the number of subjects in each age group is too small to try to make meaningful comparisons.

Tables and Figure

I'm not sure that Table 1 is useful. The number of subjects in each age group is too small to try to make meaningful comparisons. Table 2 and Figure 1 are easy to read and understand.

Discussion and Conclusion

Although the rate of MRSA nasal carriage was higher than most pediatric studies, it is not nearly as high as the rate recently reported by Alfaro et al of 22% in South Texas children (see reference section below). So, a rate of 12% is not really that unexpected or noteworthy. However, the exceedingly high rate of clindamycin resistance in the CA-MRSA isolates is unexpected and noteworthy.

References

The reference below would be useful to include since it reports the highest rate of MRSA nasal carriage in children to date. It also occurred in one of the first areas to experience the emergence and epidemic of CA-MRSA infections in children.


Overall

This is a good study and provides new information on the continuing growth of the worldwide epidemic of CA-MRSA colonization and infections.

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions
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.