Reviewer's report

Title: Improved survival with initial methicillin-resistant Staphylococcus aureus therapy in high-risk community-onset pneumonia patients: application of a new risk score

Version: 2 Date: 20 April 2015

Reviewer: Marya Zilberberg

Reviewer’s report:

I thank the authors for their careful review of my concerns and attention to addressing them. However, I am still bothered by several items.

1. I am well aware that administrative data are a useful tool in studying disease populations efficiently. Yet there is much better rationale for using ICD-9 codes to identify pneumonia patients than to identify the specific pathogens. The fact that only 10% of the population had any organism identified is a clue to the amount of under coding. Other reasons to be skeptical is that you cannot directly relate the MRSA V code to pneumonia. In other words at least some of these cases may represent MRSA from other sources. MRSA aside, though, the more important issue is whether the low-risk MRSA score patients were likely to harbor another pathogen not susceptible to anti-MRSA therapy, and could this in turn account for their worsened mortality. You have not answered that concern adequately, and your findings seem to hinge on this.

2. You need to be a lot more explicit in your discussion of the organism identification limitations. Also, the fact that you cannot account for other relevant treatments is a big issue.

3. As for the timing of the data, while I understand the limitations of timed data collection, the datas of these data make your guideline-concordant analysis potentially irrelevant, as some of the guidelines were brand new and other had not yet come out. You need to reframe your discussion of these results in this context.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have received research and/or consulting funding from Cubist, Pfizer, Astellas, Theravance and Tetraphase.