Reviewer’s report

Title: Prediction of Methcillin-resistant Staphylococcus aureus in patients with non-nosocomial pneumonia

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Reviewer: B.D. Lidewij Broekhuizen

Reviewer’s report:

This is an interesting article on risk prediction of MRSA. My major concern is that for me as a reader the benefits and clinical implications of such a risk score remain unclear. The authors state in their introduction and discussion that patients assigned a high risk of MRSA could be treated empirically for MRSA. My questions are what this treatment would be (which antibiotic) and which the downsides are of this treatment, especially when the high risk patients turns out not to have MRSA (side effects and increasing microbial resistance I guess?) Moreover, could the authors address how long the delay is before culture results are available (how many days) and how this delay would affect patient outcomes, as compared to starting empirical treatment immediately? This information would help to assess the applicability of the prediction model.

Regarding the analysis, the model development is well described. I think however that some internal validation of the model for example by bootstrapping would help to reduce overestimation of diagnostic accuracy.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests