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## Letter to the Editor

# Clinical implications of vancomycin susceptibility testing in *Staphylococcus aureus*

Dear Editor,

I read the very interesting report by Zriouil et al.<sup>1</sup> Although I understand it was not the aim of the study to evaluate specifically the vancomycin susceptibility of the isolates, I would like to make a comment regarding the laboratory methods of choice for this evaluation.

The authors state that all isolates “were still susceptible to vancomycin” and that vancomycin was “100% active against the two groups of *Staphylococcus aureus*”. It is important to remember that vancomycin disk-diffusion test is not sufficient to rule out vancomycin intermediate resistance in *S. aureus*, and a minimum inhibitory concentration (MIC) test should be performed routinely in clinical isolates.<sup>2</sup> One important obstacle is the heterogeneity of the results of different vancomycin MIC methods, including microdilution and Etest.<sup>3</sup> Nevertheless, these tests provide results with critical clinical implications.

There is also discussion in the literature about the possible association between increased MICs within the susceptible range and mortality in *S. aureus* infections.<sup>4</sup> In this case MIC results should be used only as an additional parameter for therapeutic decisions, being the clinical response the primary one.

Of note, elevated vancomycin MIC has been also associated with mortality in patients with methicillin-susceptible *S. aureus* infections treated with oxacillin. Phenotypic alterations that usually occur in vancomycin-intermediate *Staphylococcus aureus*, including but not limited to cell wall thickening, may prevent other antimicrobial agents, as beta-lactams and daptomycin, to fully exert their mechanism of action.<sup>5</sup>

## Conflict of interest

The author declares to have no conflict of interest.

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