

Implementing the Updated Guidelines in Routine Clinical Microbiology Reporting [Letter]

Ketaki Niranjana Pathak , Sourav Sen

Department of Microbiology, Symbiosis Medical College for Women (SMCW), Symbiosis International (Deemed University) (SIU), Pune, Maharashtra, India

Correspondence: Ketaki Niranjana Pathak, Department of Microbiology, Symbiosis Medical College for Women (SMCW), Symbiosis International (Deemed University) (SIU), Lavale, Pune, Maharashtra, India, Tel +91-87888332521, Email drketaki205@gmail.com

Dear editor

Bacterial isolation and elaboration of their antimicrobial susceptibility pattern in various types of external eye infections is of paramount importance so as to initiate the early and targeted antimicrobial therapy. This study by Woreta et al has emphasized the same by characterizing various bacterial isolates from such infections and performing their antimicrobial susceptibility pattern in patients from Menelik II Referral Hospital in Addis Ababa, Ethiopia.¹

The study has mentioned about the different types of eye samples collected, their laboratory processing methods including the quality control checks in the laboratory and bacterial isolates identified from them and their antimicrobial susceptibility testing results as per CLSI guidelines.^{2–4}

We would like to add a few comments related to the antimicrobial agents tested and the guidelines used for reporting the results of these antimicrobial susceptibility tests.

In the present study, the authors have mentioned about the CLSI guidelines 2017 for performing and interpreting the results of susceptibility testing of Vancomycin for *Staphylococcus aureus* by disk diffusion method whereas the current CLSI guidelines do not recommend the same.^{5,6} The authors have further reported high susceptibility to Vancomycin (92.9%) among the gram positive isolates tested. However as per current CLSI guidelines, the reported susceptibility pattern of Vancomycin in gram positive isolates in the present study may lead to incorrect interpretation as the susceptibility reporting of Vancomycin in *Staphylococcus aureus* by disk diffusion method has been discontinued. Further to that, there is an evidence of Vancomycin susceptible *Staphylococcus aureus* isolates becoming Vancomycin intermediate susceptible during the course of prolonged therapy which may further result in treatment nonresponsiveness.^{5,6}

Additionally, the routine testing and reporting of Tobramycin susceptibility results for the *Staphylococcus species* including *CONS* is not mentioned in current CLSI guidelines which is mentioned in the present study. However, the aminoglycosides have shown the clinical utility for treating infections caused by *Staphylococci* including *Methicillin Resistant Staphylococcus aureus* (MRSA) and Vancomycin resistant *Staphylococcal* isolates (VRSA).^{5–7}

The CLSI guidelines have not given any comment on the reporting of Vancomycin resistance in *Streptococcus spp. viridans* group though the same has been highlighted in this study in table 3.^{5,6}

Lastly, computing the 100% susceptibility from a single *P. stuartii* isolate to Gentamicin in Table 4 is not in lines with the current CLSI as well as EUCAST guidelines which clearly mention that *P. stuartii* should be considered resistant to Gentamicin, Netilmicin and Tobramycin and though appear as susceptible in vitro; they should be reported as resistant.^{5,6,8}

Nonetheless, we appreciate the authors for their sincere efforts for conducting the study on bacterial pathogens from various external eye infections along with inclusion of all the essential laboratory quality control parameters and studying the association of different variables involved.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Woreta AN, Kebede HB, Tilahun Y, Teklegiorgis SG, Abegaz WE. Antibiotic susceptibility pattern and bacterial spectrum among patients with external eye infections at Menelik II Referral Hospital in Addis Ababa, Ethiopia. *Infect Drug Resist.* 2022;15:765–779. doi:10.2147/IDR.S352098
2. Sharma S. Diagnosis of infectious diseases of the eye. *Eye.* 2012;26(2):177–184. doi:10.1038/eye.2011.275
3. Bitew A, Siraj M, Teklebirhan G. Clinical and microbiological profile of keratitis in Menelik II Memorial Hospital, Addis Ababa, Ethiopia. *EC Microbiol.* 2018;14(4):173–180. 22.
4. Clinical Laboratory Standard Institute. *Performance Standards for Antimicrobial Disk Susceptibility Testing.* 27th ed. Vol. 37. Pennsylvania, USA: CLSI supplement M100; 2017:M02–A12.
5. Clinical Laboratory Standard Institute. *Performance Standards for Antimicrobial Disk Susceptibility Testing.* 31st ed. Vol. 41. Pennsylvania, USA: CLSI supplement M100; 2021:M100–Ed 31.
6. Clinical Laboratory Standard Institute. *Performance Standards for Antimicrobial Disk Susceptibility Testing.* 32nd ed. Vol. 42. Pennsylvania, USA: CLSI supplement M100; 2022:M100–Ed 32.
7. Krause KM, Serio AW, Kane TR, Connolly LE. Aminoglycosides: an overview. *Cold Spring Harb Perspect Med.* 2016;6:a027029. doi:10.1101/cshperspect.a027029
8. Leclercq R, Canto'n R, Brown DFJ, et al. EUCAST expert rules in antimicrobial susceptibility testing. *Clin Microbiol Infect.* 2013;19(2):141–160. doi:10.1111/j.1469-0691.2011.03703.x

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Infection and Drug Resistance 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Infection and Drug Resistance editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Infection and Drug Resistance

Dovepress

Publish your work in this journal

Infection and Drug Resistance is an international, peer-reviewed open-access journal that focuses on the optimal treatment of infection (bacterial, fungal and viral) and the development and institution of preventive strategies to minimize the development and spread of resistance. The journal is specifically concerned with the epidemiology of antibiotic resistance and the mechanisms of resistance development and diffusion in both hospitals and the community. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/infection-and-drug-resistance-journal>

<https://doi.org/10.2147/IDR.S367337>