

Microbial Nomenclature and Laboratory Standards: Two Key Aspects to Consider [Letter]

Narinder Kaur¹, Nitin Kumar², Harit Kumar¹

¹Department of Microbiology, Maharishi Markandeshwar Institute of Medical Sciences & Research, Maharishi Markandeshwar (Deemed to be) University Mullana, Ambala, Haryana, India; ²Department of Microbiology, Symbiosis Medical College for Women, Symbiosis International (Deemed University) (SIU), Pune, Maharashtra, India

Correspondence: Harit Kumar, Email kumarharit4@gmail.com

Dear editor

Bloodstream infections (BSI) are always life threatening and cause high mortality, if left untreated.¹ We read a recently published study titled “Distribution and Drug Resistance of Pathogenic Bacteria and Prognosis in Patients with Septicemia Bloodstream Infection with Renal Insufficiency” with keen interest to know if there is any significant association between bacteria and septicemia with renal insufficiency.²

Although the authors have worked substantially, there are several points which need to be reviewed urgently:

1. The authors, in Table 2, have written two microorganisms; *Glucococcus aureus* and *Pseudomonas albicans*, which are misnomers and should never be inserted into the scientific literature.
2. The authors failed to mention the correct procedure of blood culture. Moreover, serum separation from blood sample and later inoculating bacterial drop on culture plate, somewhere confirms that the accurate procedure for blood culture was not followed in this study.³
3. The authors, in this study, evaluated antibiotic susceptibility pattern of various bacterial strains by using Kirby-Bauer disc diffusion method as per CLSI guidelines, 2015.⁴ However, following antibiotic-bacteria combinations are not recommended as per CLSI (Table 1).
4. The Authors reported that 66.67% isolates of *Streptococcus pneumoniae* were resistant to penicillin. However, CLSI does not recommend to report penicillin-resistant *S. pneumoniae* on the basis of the disk diffusion method.⁵

Table 1 Antibiotic-Bacteria Combinations are Not Recommended as per CLSI

Sr. No.	Antibiotic	Tested Against	Reason for Not to Be Tested
a.	Tigecycline	<i>Klebsiella pneumoniae</i> , <i>Escherichia coli</i> and <i>Pseudomonas aeruginosa</i>	Not as per CLSI (2015) guidelines
b.	Cefoperazone	<i>Klebsiella pneumoniae</i> , <i>Escherichia coli</i> , <i>Acinetobacter baumannii</i> and <i>Pseudomonas aeruginosa</i>	Not recommended for <i>Acinetobacter baumannii</i> and <i>Pseudomonas aeruginosa</i> as per CLSI (2015) guidelines
c.	Cefazoline	<i>Streptococcus pneumoniae</i> , <i>Staphylococcus aureus</i> and <i>Enterococcus spp.</i>	Not recommended as per CLSI (2015)
d.	Gentamicin	<i>Enterococcus spp.</i>	Not recommended as per CLSI (2015)
e.	Clindamycin	<i>Enterococcus spp.</i>	Not recommended as per CLSI (2015)
f.	Azithromycin	<i>Enterococcus spp.</i>	Not recommended as per CLSI (2015)

Disclosure

The authors declare no conflicts of interest in this communication.

References

1. Kaur N, Kumar H, Bala R, et al. Prevalence of extended spectrum beta-lactamase and carbapenemase producers in gram negative bacteria causing blood stream infection in intensive care unit patients. *J Clin Diagn Res.* 2021;15(11):DC04–DC07.
2. Pan D, Peng P, Fang Y, Lu J, Fang M. Distribution and drug resistance of pathogenic bacteria and prognosis in patients with septicemia bloodstream infection with renal insufficiency. *Infect Drug Resist.* 2022;15:4109–4116. doi:10.2147/IDR.S373665
3. Ransom EM, Alipour Z, Wallace MA, Burnham CA, Simner PJ. Evaluation of optimal blood culture incubation time to maximize clinically relevant results from a contemporary blood culture instrument and media system. *J Clin Microbiol.* 2021;59(3):e02459–20. doi:10.1128/JCM.02459-20
4. CLSI. *Performance Standards for Antimicrobial Susceptibility Testing; Twenty-Fifth Informational Supplement.* CLSI Document M100-S25. Wayne, PA: Clinical and Laboratory Standards Institute; 2015.
5. Kumar N, Kumar H. Intrinsic resistance: a significant characteristic in evaluating antibiotic sensitivity pattern [Letter]. *Infect Drug Resist.* 2022;15:1515–1516. doi:10.2147/IDR.S364959

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.S386137>