Infection and Drug Resistance

Dovepress
open access to scientific and medical research

Open Access Full Text Article

LETTER

Quality Assurance with Reference Quality Control Strains in Antimicrobial Susceptibility Testing: Need for Quality Antimicrobial-Resistant Research [Letter]

Kalpana M Angadi[1], Vivekanand B Jadhav[2], Savita V Jadhav[1]

[1]Symbiosis Medical College for Women (SMCW) & Symbiosis University Hospital and Research Centre (SUHRC), Symbiosis International (Deemed University), Pune, India; [2]Dr. Naidu Infectious Diseases Hospital, Pune Municipal Corporation Pune Maharashtra, Pune, India

Correspondence: Savita V Jadhav, Email savita.jadhav@smcw.siu.edu.in

Dear editor

Alelign et al reported interesting data on "Bacteriological Profiles, Antimicrobial Susceptibility Patterns, and Associated Factors in Patients Undergoing Orthopaedic Surgery with Suspicion of Surgical Site Infection at Arba Minch General Hospital in Southern Ethiopia."[1] We appreciate the efforts taken to investigate thoroughly the Multidrug-resistant [MDR] bacterial profile in orthopedic surgical site infections (OSSIs). Globally infections caused by MDR organisms are a significant cause of treatment failure and dissemination in hospitals and community settings. The author has reported a diversity of bacterial isolates, which would be helpful for the surgeons for their empirical therapy. It is a need of time to have OSSIs data in all local hospitals.

Herewith we would like to improve the study by giving a few comments on the study. In the present study, reference number 24 is given as referred to define MDR but in the references list its CLSI guidelines where the same definitions have not been given. Instead of information in the given link [https://www.cdc.gov/infectioncontrol/pdf/guidelines/mdroguidelines.pdf] could be useful. Magiorakos et al have defined many different definitions for multidrug-resistant (MDR), extensively drug-resistant (XDR), and pan drug-resistant (PDR) bacteria are being used in the medical literature to characterize the different patterns of resistance found in healthcare-associated, antimicrobial-resistant bacteria.[2] In the Antimicrobial Susceptibility Testing section, the author has given References 25 and 27 as CLSI guidelines wherein bibliometric numbers these references are book references while reference number 24 is CLSI guidelines.

Additionally, zone diameter and MIC breakpoints for all tested organisms should be mentioned in the manuscript. MIC QC ranges for non-fastidious organisms and antimicrobial agents excluding β-lactam combination agents and β-lactam combination agents have not been given by the author.[3] Though the author has mentioned this as a limitation to performing antimicrobial MIC. It is mandatory to follow CLSI guidelines in Disk diffusion methods. The principal role of routine microbiology laboratories is to deliver precise and well-timed antimicrobial susceptibility test results for the administrative treatment of infectious diseases.

The author should mention Quality Control used in Antibiotic susceptibility testing as the manuscript study is mainly based on bacteriological profiles and antimicrobial susceptibility patterns whereas the author reported major findings regarding multidrug resistance. Consequently, we hope that future studies will be evaluated by Quality Assurance.

Disclosure

The authors report no conflicts of interest in this communication.

Received: 31 May 2022
Accepted: 10 June 2022
Published: 16 June 2022

References

1. Alelign D, Tena T, Tadesse D, et al. Bacteriological profiles, antimicrobial susceptibility patterns, and associated factors in patients undergoing orthopedic surgery with suspicion of surgical site infection at Arba Minch General Hospital in Southern Ethiopia. *Infect Drug Resist*. 2022;15:2427–2443. doi:10.2147/IDR.S367510
2. Magiorakos AP, Srinivasan A, Carey RB, et al. Multidrug-resistant, extensively drug-resistant and pandrug-resistant bacteria: an international expert proposal for interim standard definitions for acquired resistance. *Clin Microbiol Infect*. 2012;18(3):268–281. doi:10.1111/j.1469-0691.2011.03570.x
3. Wayne PA; Clinical and Laboratory Standards Institute. *Performance Standards for Antimicrobial Susceptibility Testing CLSI Supplements M100*. Clinical and Laboratory Standards Institute; 2020.

https://doi.org/10.2147/IDR.S376887