**Letter to Editor:**

**Antibiotic susceptibility testing of Staphylococcus aureus**

**Dr. Gopal N. Agrawal, Dr. Sarfaraz Ahmed**

Department of Microbiology, Indira Gandhi Government Medical College, Nagpur, India

Department of Microbiology, Indira Gandhi Government Medical College, Nagpur, India

Corresponding author : Dr. Gopal N. Agrawal ; Email : [gnagrawal\_1@yahoo.co.in](mailto:gnagrawal_1@yahoo.co.in)

Sir,

We congratulate Dr. D. K. Sharma and Dr. P. C. Sharma, for sharing an interesting data of methicillin sensitive Staphylococcus aureus (MS-SA) from Himachal Pradesh.[1] Although the work is carefully and critically done, some clarifications are needed.

Having carefully gone through the article, it has been observed that of the 37 MSSA strains tested, as many as 19 (51.35 %) strains were vancomycin resistant. It has been not mentioned by which method this susceptibility testing has been carried out. Clinical and Laboratory Standards Institute (CLSI) 2013 clearly mentions that MIC test should be performed to determine the susceptibility of isolates of staphylococci to vancomycin as the disc test does not differentiate vancomycin-susceptible isolates of *S. aureus* from vancomycin-intermediate isolates.[2]  It further advocates to send any *S. aureus* strain for which the vancomycin is > 8 μg/ml to a reference laboratory as it is rarely encountered. It is alarming to isolate 19 vanco-mycin resistant MSSA strains.

Authors have tested MSSA strains for antibiotic sensitivity to methicillin and oxacillin. CLSI 2013 recommends the use of cefoxitin as a surrogate for oxacillin. Results of cefoxitin can be applied to the other penicillinase-stable penicillins including methicillin.[2] Use of methicillin for testing of methicillin resistance has long been abolished.Further, authors have tested MSSA strains for penicillin, ampicillin, amoxyclav and CEP (? cefazoline). CLSI 2013 advocates the use of penicillin and cefoxitin for all the β-lactam agents except those with anti-MRSA activity. [2]

Authors have tested all the three macrolides i.e. erythromycin, azithromycin and clarithromycin for susceptibility testing of MSSA. CLSI 2013 places all these antibiotics in the same box with a word ‘or’ in between the agents indicating nearly complete cross resistance and cross susceptibility for the agents.[2]

Therefore sensitivity to other two agents can be inferred from erythromycin sensitivity. In the article, there are many grammatical and other mistakes. In the second table there is neither numbering of the table nor full forms of abbreviations. At some places name of the bacteria is not in italics. In references standard abbreviations are not used at some places (reference no. 13 quotes JAMA) and there is lack of uniformity as well as few mistakes in citing the page numbers. Reference no. 2 quotes page no. as 332-9 whereas reference no. 7 quotes it as 52-57; reference no. 13 quotes the page no. as 7362-38 that is difficult to understand.

Through this letter, we would like to emphasize strict adherence to CLSI guidelines for antibiotic susceptibility testing. This will also avoid misleading the clinicians for the choice of drug for effective patient management.

**References:**

1. Sharma DK, Sharma PC. Bacteriophage typing of methicillin sensitive Staphylococcus aureus (MSSA) strains recovered from human clinical cases in Himachal Pradesh and their in vitro susceptibility to different antibiotics. Indian Journal of Basic and Applied Medical Research 2013; 3(1): 296-302.
2. Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing. 23rd Informational Supplement. Wayne, Pennsylvania: Clinical and Laboratory Standards Institute Document M100-S23. 2013.