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Comment on : 'Distribution, phenotypic characterisation and antibiogram of bacterial species from hospital environment in Nigeria: Public health implications'

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Sir,

I read with interest the article by Onuoha et al. entitled 'Distribution, phenotypic characterization and antibiogram of bacterial species from hospital environment in Nigeria: Public health implications'. The authors performed antimicrobial susceptibility testing for the bacteria that were isolated from various surfaces of a federal teaching hospital. It is clear that the authors made a great effort for the work. However, I have some concerns about the method that used for the determination of vancomycin susceptibility of *Staphylococcus aureus* isolates and some of the antimicrobial agents that were chosen for the antimicrobial susceptibility testing for the isolates of *Salmonella* spp. and *Shigella* spp.

The authors used disk diffusion method for the detection of vancomycin resistance among *S. aureus* isolates. According to current guidelines, the disk diffusion test with vancomycin is unreliable and should not be used for the detection of vancomycin resistance in *S. aureus*. Clinical and Laboratory standards Institute (CLSI) and European Committee on Antimicrobial Susceptibility Testing (EUCAST) recommend vancomycin MIC testing to determine the susceptibility of staphylococci to vancomycin (1, 2). I must indicate that the percentage of *S. aureus* isolates that were found to be resistant to vancomycin is extremely high (87.5%) in the study of Onuoha et al. Isolates of vancomycin-resistant *S. aureus* (VRSA) are rarely described worldwide (3, 4). Vancomycin MIC testing should be performed for all *S. aureus* strains in this study to reliably determine the vancomycin susceptibility profile of the isolates.

The authors also performed antimicrobial susceptibility testing for *Salmonella* spp. and *Shigella* spp. isolates. According to CLSI guidelines, first and second generation cephalosporins, cephamycins and aminoglycosides may appear active in vitro, but these agents are clinically ineffective and shouldn't be reported as susceptible (1).

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The authors included cephalothin (a first-generation cephalosporin), cefuroxime (a second-generation cephalosporin), streptomycin and gentamicin (aminoglycosides) among the antimicrobial agents tested against the isolates of *Salmonella* spp. and *Shigella* spp. They reported various susceptibility rates for cefuroxime, gentamicin and streptomycin for *Salmonella* spp. isolates. Also, 95.2% and 4.8% of *Shigella* spp. isolates were reported to be susceptible to gentamicin and streptomycin, respectively. It would be better not to use first and second generation cephalosporins, cephamycins and aminoglycosides for antimicrobial susceptibility testing of *Salmonella* spp. and *Shigella* spp. in order to prevent misunderstandings.

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