

**ANTIBIOTICS RESISTANCE PATTERN OF *Staphylococcus aureus* ISOLATES
FROM ORTHOPAEDIC PATIENTS IN AHMADU BELLO UNIVERSITY
TEACHING HOSPITAL, ZARIA, NIGERIA**

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ABSTRACT

As *Staphylococcus aureus* remain the predominant microbial flora of the human respiratory tract and skin; it also account for the most human integumental infections and life-threatening systemic diseases especially in orthopaedic surgical site infections (SSIs). This study evaluates the antibiotics resistance pattern of *Staphylococcus aureus* isolates from orthopaedic patients to various antimicrobial agents used in the treatment of surgical sites infection in Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Nigeria. A total of 100 clinical swab samples of surgical sites were collected from orthopaedic patients in ABUTH, Zaria, Nigeria out of which 39 were identified as *Staphylococcus aureus* using API STAPH identification kit. Disc agar diffusion method was used for the antibiotics susceptibility test while nitrocefin microplate assay was used to test for beta lactamase production. Our findings showed that the isolates were highly resistant to ampicillin (94.9%), ceftriaxone (79.5%), cefoxitin (64.1%) and amoxicillin-clavulanic acid (59%) which are beta-lactam antibiotics. Further evaluation showed that 64% of the isolates produced beta-lactamase, while 36% do not. We conclude that the *Staphylococcus aureus* isolates from orthopaedic patients in ABUTH, Zaria were highly resistant to beta lactam antibiotics used in this study.

Keywords: *Staphylococcus aureus*, orthopaedic patients, antibiotic susceptibility, ABUTH, Zaria.