

## ***In Vitro* Antimicrobial Sensitivity Testing of *Nocardia Africana* Strains Recently Isolated from Patients with Pulmonary Infections in Sudan**

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**Objective:** The aim of the present study was to determine the *in vitro* susceptibility of *Nocardia africana* to various antimicrobial agents. *Nocardia africana* is a Gram-positive aerobic actinomycete and a notable pulmonary pathogen.

**Methods:** *N. africana* strains were tested for their *in vitro* sensitivity against 34 different antimicrobial agents. The antimicrobial susceptibility was determined by the disk diffusion method using Mueller-Hinton agar medium. The zone of inhibition was read after 36-48 h of incubation at 37 degrees C.

**Results:** The results indicated that all *N. africana* isolates were sensitive to ciprofloxacin (5µg/ml), clindamycin (10µg/ml), fusidic acid (10µg/ml), gentamycin (10µg/ml), imipenem (10µg/ml), tobramycin (10µg/ml), amikacin (20µg/ml), doxycycline (30 µg/ml), minocycline (30µg/ml), and vancomycine (30µg/ml). They were resistant to compound sulfonamides (300µg/ml), sulphafurazole (100µg/ml), metronidazole (50µg/ml), aztereonam (30µg/ml), cefotetan (30µg/ml) nalidixic acid (30µg/ml) and penicillin G (10 units).

**Conclusions:** *N. africana* revealed distinct susceptibility and resistance profiles to antimicrobial agents testes. The study underline the importance of antimicrobial susceptibility testing for clinical isolates of *Nocardia* spp. Individual species show considerable differences in their susceptibility patterns which necessitate therapeutic adjustments and early prompt medical intervention.