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Molecular characterization of antibiotic resistant-*Salmonella* species from diarrheal patients' stool samples in Ile-Ife, Nigeria

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The study reported the isolation and characterization of antibiotic resistant-*Salmonella* species from stool samples of diarrhoeal patients in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, Osun state, Nigeria. A total of 69 isolates were obtained from 187 stool samples of diarrhoeal patients (ages 3 to 72) cultured on *Salmonella-Shigella* agar plates. All the 69 isolates were confirmed and identified as *Salmonella* sp. based on cultural, morphological and standard biochemical tests. The susceptibility of the isolates to fluoroquinole and cephalosporin antibiotics was done on Mueller-Hinton agar plates. Molecular characterization of resistance plasmid factor and resistance genes in 20 selected multiple antibiotic resistant isolates were done using PCR amplification techniques.

All the *Salmonella* isolates were resistant to nitrofurantoin, followed by ceftriazone (97.2%), gentamycin (94.2%), cotrimozazole (91.3%), amoxicillin (88.4%) and tetracycline (66.7%), ciprofloxacin (42%) pefloxacin (39%) and ofloxacin (37.6%) being the least. About 53.6% of the *Salmonella* isolates exhibited multiple antibiotic resistance (MAR) to at least four antibiotics with 23 different antibiotypes. All the 20 selected MAR- isolates haboured multiple plasmids ranging from 1.46 kbp to 23.13 kbp and had blaCTX gene targeted between 120 to 550 bp fragment and *gyrase* A gene at the Quinolone Resistant-Determining Region with fragment ranging between 282 to 311bp. All the selected MAR-Isolates did not have *inv* A gene.

Biography

Oluduro A. O. is a Lecturer and researcher from 17 years, and currently a senior Lecturer at the Department of Microbiology, Obafemi Awolowo University, Ile-Ife, Nigeria. She completed her Ph.D. (Microbiology) from the University of Ado-Ekiti, Ado-Ekiti, Nigeria, in 2006. She has published more than 28 papers mostly in the field of bacteriology in reputed journals and serving as a reviewer to many international journals. She is actively involved in teaching and research supervision at undergraduate and post graduate levels, and has successfully supervised well above 60 undergraduates' research projects and 15 postgraduates' research including M.Sc. and Ph.D. She has participated in many international conferences.

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