Prevalence of Multi-Drug Resistant Salmonella typhi among Clinically Diagnosed Typhoid Fever Patients in Lagos, Nigeria

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A total of 635 clinically diagnosed typhoid fever patients were bled from three different health institutions in the metropolis of Lagos, Nigeria over a period of 15 months, May 1997 to July 1998.

Out of the total blood cultured, 101 (15.9%) isolates of Salmonella species were isolated of which 68 (67.3%) were S. typhi, 17 (16.8%) and 16 (15.8%) were S. paratyphi A and S. arizonae respectively. The overall isolation rate of S. typhi among patients is 10.7%, with most isolates 45.9% found among the severely-ill young adults, age group 16-30 years. All isolates were subjected to anti-microbial susceptibility testing using 12 different antibiotics: chloramphenicol, ampicillin, cotrimoxazole, gentamicin, colistin sulfate, nalidixic acid, nitrofurantoin, cefotaxime, tetracycline, streptomycin, ofloxacin and ciprofloxacin. All the S. typhi and S. paratyphi A isolates showed resistance to two or more of the 10 of 12 antibiotics tested particularly the 3-first-line antibiotics commonly used (chloramphenicol, ampicillin and cotrimoxazole) in the treatment of typhoid fever in Nigeria. No isolate showed resistance to ofloxacin and ciprofloxacin, however, nalidixic acid and gentamicin showed a moderate and appreciable inhibition to most of our isolates.