

**TITLE:** MOLECULAR SUBTYPING OF PLASMID-MEDIATED QUINOLONE RESISTANCE IN *SALMONELLA* STRAINS.

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*Salmonella* spp are the most frequent causative agents of foodborne disease. Clinical manifestations of human infections with *Salmonella* spp. cause from mild to severe gastroenteritis intestinal and extra-intestinal infections such as bacteremia, sepsis and meningitis, including typhoid fever. Antimicrobial therapy is essential for immunocompromised patients, the elderly or children, or in severe and invasive cases caused by *Salmonella*, and ciprofloxacin (fluorquinolone) is recommended as the drug of first choice for treatment. The resistance to fluorquinolones is still rare in *Salmonella* spp. However, in recent decades the emergence and spread of resistance to nalidixic acid associated with reduced susceptibility to ciprofloxacin among *Salmonella* serotypes, have become of great interest public health. The multidrug resistance in *Salmonella* has been increased due to the indiscriminate use of antimicrobial agents in the treatment and prophylaxis human and veterinary medicine. In this study, 43 *Salmonella* strains harboring plasmid-mediated quinolone resistance genes (*oqxA/B*, *qnrB19* and *aac(6') Ib-cr*) from human infections cases and non-human origin (mostly food) were evaluated. We verified that 20 transconjugants/transformants strains had from 1 to 3 plasmids of low and high molecular weight (up to approximately 98kb), using the technique S1-PFGE. PCR-based replicon typing detected the presence of six IncF, two IncL/M, and five IncI1 replicons in *Salmonella* transconjugants strains. Some transconjugants strains were non typeable. These results suggest the presence of recurrent and common plasmids in epidemiological unrelated *Salmonella* isolates of different serotypes and PMQR genes isolated, suggesting the successful spread of these genetic determinants.

**Keywords:** *Salmonella*, PCR-based replicon typing, quinolone resistance.

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