

TITLE: PREVALENCE AND ANTIMICROBIAL RESISTANCE IN *SALMONELLA* SPP. ISOLATED FROM RETAIL CHICKEN MEAT IN FEDERAL DISTRICT, BRAZIL

AUTHORS: PAVELQUESI, S. L. S.; FERREIRA, A. C. A. O.; RODRIGUES, L. F. S.; ORSI, D. C.; SILVA, I. C. R.

INSTITUTION: UNIVERSIDADE DE BRASÍLIA, FACULDADE DE CEILÂNDIA (UNB/FCE), PROGRAMA DE PÓS-GRADUAÇÃO EM CIÊNCIAS E TECNOLOGIAS EM SAÚDE, CENTRO METROPOLITANO, CEILÂNDIA SUL, BRASÍLIA, DF, CEP: 72220-275

ABSTRACT: *Salmonella* bacterium has great public health importance due to the high number of diseases transmitted to humans. Poultry represents an important *Salmonella* reservoir and, as Brazil is the largest exporter and one of the main producers of chicken meat, there is a need for greater sanitary control of these products. The increase in the number of antibiotic-resistant strains of *Salmonella* has been associated with the indiscriminate use of antibiotics in poultry production. The aim of this study was to determine the prevalence of *Salmonella* spp. in samples of retail chicken meat sold in the Federal District and to determine the antimicrobial resistance of isolated *Salmonella* spp. strains. Twenty samples of chilled chicken meat of different cuts (breast, thigh, drumstick, wing drumstick, wing) were collected in supermarkets in the Federal District, Brazil. Microbiological and biochemical tests were carried out to screen for *Salmonella* spp. in chicken meat samples, and isolated strains were identified as *Salmonella* using the PCR technique due to the presence of the *invA* gene. The susceptibility of the strains to antimicrobials was assessed using the disk-diffusion technique (Kirby-Bauer method). The prevalence of *Salmonella* spp. in chicken meat samples was 50% (10 samples were contaminated with *Salmonella* from the total of 20 samples analyzed). The antimicrobial resistance of the 15 strains of *Salmonella* isolated, showed that 12 strains (80%) showed resistance to at least one of the tested antibiotics and 5 strains (26.6%) were multidrug-resistant. The results of this study showed a high prevalence of *Salmonella* spp. in chicken meat and 50% of the samples were unacceptable for consumption according to Brazilian legislation which currently does not allow the presence of these bacteria in meats. Another public health concern is the possibility of transmitting antibiotic resistance to humans due to the existence of multiresistant strains of *Salmonella* in chicken meat. Therefore, there is a need for greater inspection in the Brazilian poultry sector, in order to reduce this pathogen in the production chain.

Keywords: *Salmonella*, multidrug-resistant strains, chicken meat.

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Correspondence author: Sabrina Lunara Santos Pavelquesi (e-mail: sabrialunara@gmail.com)