

Title: ANTIMICROBIAL SUSCEPTIBILITY BY *Salmonella* spp. ISOLATES FROM POULTRY CARCASSES SOLD IN PUBLIC MARKETS IN THE CITY OF RECIFE, PERNAMBUCO - BRAZIL

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Abstract:

Salmonella spp. is one of the most important bacteria involved in food illness outbreaks. Different food products are recognized to be the route of the dissemination of this microorganism, such as poultry meat. Thousands of people get infected with *Salmonella* serovars every year, and different types of antibiotics is needed to a proper treatment. However, the number of successful drugs available for the treatment of *Salmonella* infection is reduced. It is associated with the microorganism resistance, which is an enormous public health problem. Therefore, the purpose of this research was to evaluate the antimicrobial susceptibility of *Salmonella* spp. isolates from poultry carcass sold in public markets in the city of Recife, Pernambuco - Brazil. A total of 21 *Salmonella* spp. The antimicrobial susceptibility test was performed according to the disk diffusion test, and the drugs tested were, ampicillin (10 µg), chloramphenicol, ceftriaxone (30 µg), ciprofloxacin (5µg) and sulfamethoxazole + trimethoprim (23,75/1,25 µg). According to the CLSI standard, 76% (16/21), 76% (16/21), 67% (14/21), 95% (20/21) of the samples were susceptible to ampiciline (10 µg), sulfamethoxazole + trimethoprim (23,75/1,25 µg), ceftriaxone (30 µg) and chloramphenicol, respectively. However, none of the samples (0/21) analyzed were susceptible for ciprofloxacin (5µg). Additionally, the samples tested for ceftriaxone and ciprofloxacin also expressed intermediary susceptibility, which were 14% (3/21) and 86% (18/21), respectively. In conclusion, the results presented in the present study suggest that the majority of the antimicrobial agents used to treat *Salmonella* infection had satisfactory results, however, none of the samples tested were sensitive for ciprofloxacin. For this reason, it pointed out that actions have to be taken to avoid the increase of drug resistance from microorganisms, as well as, studies to develop new antimicrobial agents, as none of the antimicrobial drugs tested were 100% effective on the samples of *Salmonella* spp. tested.

Keywords: antimicrobial drugs, microorganism resistance, public health, food illness

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