

TITLE: PROFILE OF ANTIMICROBIAL SENSITIVITY OF SALMONELLA SP. ISOLATED CHICKEN MEAT IN THE STATE OF PARANÁ - BRAZIL.

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ABSTRACT:

Salmonella sp. with multiresistant phenotypes are a worldwide problem facing about 30 years. Therefore, continuous monitoring of their prevalence and resistance in food is necessary because of the implications for public health and the potential dissemination of resistant microorganisms. 98 *Salmonella* sp. from frozen cuts of chicken, produced in the state of Paraná. Each isolate was tested against antimicrobials: Ampicillin (10µg), Cefepime (30µg), Ceftriaxone (30µg), Meropenem (10µg), Imipenem (10µg), Aztreonam (30µg), Amoxicillin/Clavulanic Acid (20/10µg), Gentamicin (10µg), Amikacin (30µg), Tetracycline (30µg), Doxycycline (30µg), Nalidixic Acid (30µg), Ciprofloxacin (5µg), Sulfamethoxazole/Trimethoprim (23.75/1.2 µg) and Chloramphenicol (3 µg). Only five isolates (5.1%) were sensitive to all antimicrobials tested. The other isolates were resistant to two or more classes of antimicrobials. Eight isolates were resistant to two classes, 68 isolates to three classes and 17 isolates showed resistance to four classes of antimicrobials. Thus, 86.7% (85/98) of the isolates showed to be multiresistant, that is, resistance to three or more classes of antimicrobials. All isolates (100%) were sensitive to Carbapenems, Chloramphenicol and aminoglycoside Amikacin. Resistance of isolates *Salmonella* sp. to Chloramphenicol has been declining since 1998 in Brazil, when this antimicrobial was banned for use in production animals. The sensitivity of all isolates to Carbapenems has great relevance, since these are the antimicrobial agents of choice in the cases of strains producing extended spectrum beta-lactamases. The highest resistance indices were observed for Nalidixic Acid (95%), Tetracycline (94%), Doxycycline (94%), Ampicillin (87%), Amoxicillin with Clavulanic Acid (84%), Ceftriaxone (79%) and Ciprofloxacin 76%). The most prevalent profile among the multiresistant isolates was resistance to Ampicillin (AMP), Amoxicillin with Clavulanic Acid (AMC), Doxycycline (DOX), Tetracycline (TET), Nalidixic Acid (NAL) and Ceftriaxone (CRO) (37.8%). The high occurrence of multiresistants *Salmonella* sp. found in the state reinforces that this is a global problem, since Paraná is the largest exporter of poultry meat in Brazil.

Keywords: aminoglycosides, chloramphenicol, multiresistance