TITLE: PREVALENCE AND ANTIMICROBIAL RESISTANCE OF *Salmonella* Infantis FROM DIFFERENT SOURCES IN BRAZIL.

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ABSTRACT:
Salmonella is a leading cause of food-borne disease being an important health problem in industrialized and developing countries. Among the >2,610 serovars S. Infantis has been one of the 15 most isolated serovars in African, Asian, European, and American countries. S. Infantis has been isolated from outbreaks linked to contaminated foods such as poultry, beef, milk, eggs, fruits, vegetables, and herbs. Anyone can get sick with a *Salmonella* infection, but there are certain groups that are more at risk for serious complications. Infants, children, senior citizens, and people with weakened immune systems or chronic illnesses are at higher risk of serious illness, and can get sick more easily. The selection of effective antibiotics is critical for the treatment of invasive *Salmonella* infections, but has become more difficult as antibiotic resistance has increased. The objective of the present investigation was to determine the prevalence of *S*. Infantis among the different sources from food chain throughout Brazil and evaluate their antimicrobial profile, among the strains received by NRLED between 2014 and 2016. From 21.029 strains of Salmonella identified, 952 strains of *S*. Infantis were identified after antigenic identification. The antimicrobial resistance profile was determined by disk-diffusion according to the Clinical & Laboratory Standards Institute, CLSI (annually updated). Of the 952 strains, 394 were isolated from food (41.3%), 220 from environment (23.1%), 138 animal (14.4%), 122 foodstuff (12.8%) and 78 human (8.19%). Among the total, 351 strains were evaluated and the results revealed that in 2014, from the 152 strains analyzed, 28.9% were multiresistant-MDR, 19% resistance to 1 drug only, 28.9% intermediates to ≥1 drugs and 23% to all drugs. In 2015, from 146 strains analyzed, 37.6% were MDR, 10.2% resistant to 1 drug, 49.3% intermediate to ≥1 drugs and 2.73% sensitive. In 2016, from 53 strains, 24.5% MDR, 13.2% resistant to only 1 drug and, 54.7% intermediate. Our results showed that serotyping of *Salmonella* showed that *S.* Infantis were included within 15 most prevalent serovars in Brazil, and the food source is the main vehicle for dissemination with varied spectrum of antimicrobial resistance, including several MDR phenotypes. These data emphasize the public health importance of continuing efforts to continued surveillance of zoonotic foodborne pathogens, including antimicrobial-resistant variants, throughout the food chain.

Keywords: *Salmonella* Infantis, antimicrobial resistance, food chain