TITLE: SEROVARS OF *Salmonella* spp. CIRCULATING IN BRAZIL ISOLATED FROM PRODUCTS OF AVIAN ORIGIN IN 2017 AND 2018

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ABSTRACT:
The genus Salmonella spp. is part of the normal microbiota of poultry and its occurrence in poultry products varies according to management in breeding and slaughter technology, representing risks to the final consumer and difficulties in exports. The present work aimed to identify the serovars of *Salmonella* spp. isolated from poultry samples received from different regions of the country from January 2017 to December 2018 as part of the surveillance routine carried out by the National Reference Laboratory of Bacterial Enteroinfections (NRLBE / IOC-FIOCRUZ). All strains had their phenotypic profile confirmed by biochemical tests and their antigenic classification performed by the technique of rapid serum agglutination in slide using somatic and flagellar polyvalent and monovalent antisera and being classified based on the kauffman-White scheme. A total of 1397 strains of *Salmonella* spp. were analyzed, with the most prevalent serovars being S. Saintpaul (297), S. Heidelberg (160), S. Agona (85), S. Mbandaka (57), S. Infantis 55), S. Cerro (54), S. Gafsa (53). S.Gallinarum (37). As for the isolation region, the most prevalent serovars were identified mainly in the Southeast region, with 99% of the isolates of S. Saintpaul, 52.5% of S. Heidelberg, 70.6% of S. Agona, 96.5% S. Mbandaka , 74.5% S. Infantis, 92.6% S. Cerro and 100% S. Gafsa. Only the serovar S. Gallinarum was more prevalent in the Midwest with 59.35%, and only 5.4% in the Southeast. This is due to the fact that this serovar is a specific species of poultry with no risk of contagion to the final consumer, being found in the main animal production regions. The South region was the second most prevalent with 1.1% of 36.9% S. Heidelberg, 27.1% S. Agona, 1.7% S. Mbandaka, 5.6% in S. Cerro and 35.1% % in serovar S. Gallinarum isolates. In the Midwest, were identified 0.34% isolates from S. Saintpaul, 10.6% from S. Heidelberg, 2.35% from S. Agona, 1.7% from S. Mbandaka, 21.8% from S Children and 1.85% of S. Cerro. No isolates of *Salmonella* spp. of poultry source were identified in the North and Northeast regions. The data highlight the importance of constant monitoring of the poultry sector, both in production and in the final product, aiming to control the most prevalent serovars, in order to increase the quality of the domestic product and competitiveness in the international market.

Keywords: *Salmonella* spp., poultry products, antigenic classification, serovars