

# VETERINARIAN'S PERCEPTION OF ANTIMICROBIAL USE AND RESISTANCE IN EGG PRODUCTION IN RIO GRANDE DO SUL STATE, BRAZIL

4º Encontro Nacional de Epidemiologia Veterinária, 4ª edição, de 19/07/2022 a 21/07/2022  
ISBN dos Anais: 978-65-81152-81-9

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## RESUMO

Antimicrobial resistance can be the next pandemic episode lived in human history. The increase in resistant bacteria, the exchange of resistant genes among them, and the scarcity of new antibiotics produced are some issues involved. In addition, bacteria present in some domesticated animals can be transmitted to humans and their surrounding environment. Therefore, a descriptive epidemiological study was carried out to describe the perception of veterinarians, who work with commercial laying hens in Rio Grande do Sul State - Brazil, regarding the use of antibiotics and its impact on animal, human, and environmental health. The study population's list was obtained from the Poultry Production Association of Rio Grande do Sul State (ASGAV) from which a conventional sample scheme was designed, followed by a snowball technique. Thus, from March 2020 to June 2021, sixteen veterinarians were willing to be interviewed, in a face-to-face or a virtual format, when a structured and standardized questionnaire, composed of one opened and forty closed questions, was applied. The typical interviewee was a male veterinarian, between 30 and 50 years old, working for 10 years or more, and in charge of up to 20 egg farms. The majority of the respondents agreed or strongly agreed that the presence of clinical signs (14/16) and the veterinarian experience (13/16) are key factors in the choice of the antibiotic to be used. In addition, according to the veterinarians, farmers of commercial laying hens can acquire antibiotics without a veterinarian prescription (11/16) and administer them on their farm (11/16). Moreover, it was reported both farm storage and administration of lower doses of antibiotics than the recommended, what could be contributing factors to resistant bacteria selection. Furthermore, controversially, the professionals believed that resistant bacteria can be transmitted to humans from eggs (10/16), but they said that there are no bacteria in eggs (11/16). In addition, respondents did not reach consent on the involvement of the environment in the spread of antimicrobial resistance bacteria (8/16). Finally, it is expected that the present results might contribute to a critical discussion about antimicrobial resistance and possible public policies related to the egg production industry.

**PALAVRAS-CHAVE:** veterinarians, laying hens, antibiotics, knowledge/awareness, One Health

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