

**Título: ANTIBIOTIC RESISTANCE OF *E. coli* STRAINS ISOLATED FROM PRODUCTS OF ANIMAL ORIGIN.**

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**Abstract**

*Escherichia coli* is one of the most common microorganisms involved in outbreaks of diseases transmitted by food in Brazil, while the EHEC group (enterohemorrhagic *E. coli*) is the most important to public health over the world, and one of its main antimicrobial resistance mechanisms is producing extended spectrum  $\beta$ -lactamases (ESBL). The role of the food chain in the transfer of ESBL resistance genes has been little studied in the country. This paper aims to present the partial results of antimicrobial resistance profile analysis of *E. coli* isolated from samples of animal origin products (milk and dairy products, poultry, beef and seafood meat and products) collected in Bahia, between the years 2009 and 2013. Disk diffusion test was applied testing 14 antibiotics. Of the 60 strains analyzed so far, 28 (47%) presented MAR (multiple antibiotic resistance) index equal to or greater than 21%, which means that the strains were resistant to 3 or more antibiotics. On the other hand, 20% of the strains were sensitive to all antibiotics tested. The strains were more resistant to amikacin (96%), imipenem (91%) and gentamicin (85%), and it were more susceptible to tetracycline (50%), ampicillin (40%) and amoxicillin (40%). The strains will undergo confirmatory testing for the ability to produce ESBL yet, but it can be said that 13% of the strains are suspect because they formed ghost zone between amoxicillin disc / clavulanic acid and any of the tested cephalosporins discs (ceftriaxone, ceftazidime, cefotaxime and aztreonam). This work was important to ratify the risk of transferring antimicrobial resistance genes to the resident microbiota through the ingestion of animal origin products contaminated by resistant microorganisms. It was also important to alert health professionals, both animal and human, to the indiscriminate use of antibiotics in their work routine.

**Keywords:** EHEC, antibiogram, multidrug resistance, antibiotic, ESBL

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