TITLE: EVALUATION OF ANTIMICROBIAL RESISTANCE PROFILE FOR HUMAN AND VETERINARY CLINICAL USE AND PREVALENCE OF MULTIRESISTANCE IN *Proteus mirabilis* ISOLATED FROM BEEF AND PORK SOLD IN BUTCHER SHOPS.

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ABSTRACT:
Brazil currently is on the spotlight in both national and international meat market, and the possibility of these foods presenting antimicrobial resistant bacteria is a serious health threat to consumers. Therefore, this study aims to evaluate the resistance profile for human and veterinary clinical use in *Proteus mirabilis* isolated from pork and beef sold in butcher shops in Londrina-PR and from the bacteriological collection from bacteriology laboratory from UEL – LABAC. In total, 100 isolates were studied, 50 from beef and 50 from pork. These were submitted to disk diffusion method, following the Clinical and Laboratory Standards Institute's – CLSI recommendations, utilizing 20 different antimicrobials. Regarding beef isolates, we found that 1 (2%) was resistant to Amoxicillin-clavulanate 20/10 µg, 12 (24%) to Ampicillin 10 µg, 8 (16%) to Cephalothin 30 µg, 1 (2%) to Ceftriaxone 30 µg, 1 (2%) to Cefepime 30 µg, 12 (24%) to Nalidixic acid 10 µg, 9 (18%) to Enrofloxacin 5 µg, 7 (14%) Ciprofloxacin, 6 (12%) Norfloxacin 10 µg, 17 (34%) to Sulfamethoxazole-Trimethoprim 23.75/1.25 µg, 2 (4%) to Gentamicin 10 µg, 4 (8%) to Tobramycin 10 µg and 11 (22%) to Chloramphenicol 10 µg. Regarding pork meat, we found that 4 (8%) were resistant to Amoxicillin-clavulanate 20/10 µg, 9 (18%) to Ampicillin 10 µg, 7 (14%) to Cephalothin 30 µg, 1 (2%) to Ceftriaxone 30 µg, 1 (2%) Cefepime 30 µg, 24 (48%) Nalidixic Acid 30 µg, 10 (20%) Enrofloxacin 5 µg, 10 (20%) Ciprofloxacin, 9 (18%) Norfloxacin 10 µg, 16 (32%) Sulfamethoxazole - Trimethoprim 23.75/1.25 µg, 1 (2%) Gentamicin 10 µg, 3 (6%) Tobramycin 10 µg and 5 (10%) Chloramphenicol 10 µg. No isolate from either source showed resistance to Piperacillin/tazobactam 100/10 µg, Ampicillin-sulbactam 10/10 µg, Cefoxitin 30 µg, Ceftazidime 30 µg, Amikacin 30 µg, Aztreonam 30 µg and Ertapenem 10 µg. From all strains, nine from beef and fifteen from pork were multiresistant (MDR), as they exhibited resistance to three or more antimicrobials from different classes. The frequency of resistance found in *P. mirabilis* from either meat source is similar, which means these foods can disseminate multiresistant bacteria, even if these are less common.

Keywords: Multidrug-resistance, Zoonotic risk, Bacterial resistance, Public health.

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