

**MULTIPLE ANTIMICROBIAL RESISTANCE INDEX IN WOUND SAMPLES OF  
ANIMALS TREATED IN THE VETERINARY HOSPITAL OF UMUARAMA FROM THE  
UNIVERSIDADE ESTADUAL DE MARINGÁ, PR**

*(ÍNDICE DE RESISTÊNCIA MULTIPLA A ANTIMICROBIANOS EM AMOSTRAS DE FERIDAS  
DE ANIMAIS ATENDIDOS NO HOSPITAL VETERINÁRIO DA UNIVERSIDADE ESTADUAL DE  
MARINGÁ – CAMPUS DE UMUARAMA-PR)*

**J. T BORDIN<sup>1\*</sup>, R.A.P SFACIOTTE<sup>2</sup>, L.G. CORONEL<sup>3</sup>, V.K.C VIGNOTTO<sup>4</sup>, R. R MARTINS<sup>5</sup>,  
S.R WOSIACKI<sup>6</sup>**

Wound healing progresses rapidly when handled correctly, but factors such as age, concomitant diseases and immunosuppression may influence recovery. The use of antibiotics is important in controlling the microbiota of the skin and prevents secondary infections and sepsis. The choice of antimicrobial has become a difficult task due to the complexity of antibiotics resistance mechanisms, leading to increased morbidity and mortality of patients treated inappropriately (ARIAS et al., 2008). This study aimed to verify the level of multiple antimicrobial resistance (MAR) of 28 samples of wounds from animals treated at HV- UEM. We identified the following groups of bacteria: cocci (15 *Staphylococcus* spp.; 2 *Streptococcus* spp.; 5 cocci gram-negative) and bacillus (3 *Escherichia coli*; 1 *Providencia* spp.; 2 *Proteus* spp.). The resistance profile was performed according to the standards recommended by the Animal CLSI (2008) for disk diffusion with 30 antimicrobials, divided among 10 classes, which were chosen according to its spectrum. The MAR index is given by the ratio between the number of antibiotic resistant by total tested, considering values equal to or greater than 0.2 as indicative of multidrug resistance. Of the 28 bacterial samples, 25 had  $MAR \geq 0.2$ , with an average of 0.43, minimum 0.03, maximum 0.8 and mode 0.35. Among the identified samples, cocci showed multiple resistance of 90.9%, and among them *Staphylococcus* spp. had 93.3 %, *Streptococcus* spp. 100% resistance, of the Gram-negative cocci 80% were resistant. Among the bacilli, 80% of the total displayed resistance to antimicrobials while *Escherichia coli* showed 66.7% and *Providencia* spp and *Proteus* spp were 100% resistant. The results show the importance of controlling the use of antibiotics to treat wounds since the multiple resistance levels found in the samples evaluated were considered high.

1\* Médica Veterinária residente em doenças infecto-contagiosas e Parasitárias da Universidade Estadual de Maringá (UEM) e-mail: [jessica\\_bordin@hotmail.com](mailto:jessica_bordin@hotmail.com)

2 Médico Veterinário mestrando em ciência animal da Universidade Federal do Paraná(UFPR)

3 Discente em Medicina Veterinária da Universidade Estadual de Maringá (UEM)

4 Técnica do laboratório de Microbiologia Veterinária da Universidade Estadual de Maringá(UEM)

5 Prof. da Universidade Estadual de Maringá (UEM)