

**Title: ANTIMICROBIAL SUSCEPTIBILITY PROFILE OF *Enterococcus* spp. ISOLATED FROM FECAL SAMPLES OF MARINE ANIMALS RECOVERED ON THE NORTH COAST OF RIO GRANDE DO SUL, BRAZIL**

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**Abstract:**

Enterococci are Gram-positive coccus, facultative anaerobic which survive the most diverse environmental conditions. These microorganisms are commonly found in the gastrointestinal microbiota of humans, animals, and the environment. Studies involving isolated enterococci in marine animals are scarce due to the difficulty of obtaining the samples. Therefore, the aim of this study was to evaluate the antimicrobial susceptibility profile of *Enterococcus* spp. isolated from fecal samples of marine animals, such as turtles, dolphin and whales recovered on the North coast of Rio Grande do Sul. From fecal swabs from these animals we isolated 208 enterococci. Antimicrobial susceptibility was determined using the disk diffusion, according to the recommendations of *Clinical and Laboratory Standards Institute*. Eleven antibiotics commonly used in the treatment of clinical infection and agricultural procedures were tested: chloramphenicol (30µg), streptomycin (300µg), rifampicin (5µg), tetracilin (30µg), ciprofloxacin (5µg), erythromycin (15µg), vancomycin (30µg), gentamicin (120µg), nitrofurantoin (300µg), norfloxacin (10µg) and ampicillin (10µg). At this time, 158 from a total of 208 were tested. The majority of the isolates tested were susceptible to antibiotics, but resistance phenotypes were observed for rifampin, erythromycin, tetracycline and vancomycin. Of the 158, 32.3% (51/158) showed resistance to rifampin, 33.5% (53/158) to erythromycin, 0.6% (1/158) to tetracycline and vancomycin. The *Enterococcus faecium* were less sensible to antimicrobial than other species evaluated. The presence of antibiotic resistant strains in these animals could be related to contamination to the marine environment or linked to environmental resistome. However, it is important to evaluate the resistance genetics mechanisms to understand how these resistant strains are spreading in the marine environment.

**Keywords:** Enterococci, profile of susceptibility, marine animals.

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