

TITLE: ANTIBIOTIC RESISTANCE OF *Enterococcus* GENUS ISOLATED FROM RIVERS IN THE CITY OF TERESINA-PIAUI.

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ABSTRACT:

Water quality became important to public health mainly in the late 19th and early 20th century. Prior to this period the water quality was based only on its aesthetics and only analyzed its odor and coloration. Microbiological analysis was still not taken into account for the reason of numerous diseases in the people who used this resource. The aim of this work is to perform the monitoring of bacteria resistance of the *Enterococcus* genus present in the rivers of Teresina, Piauí. The material collection was carried out in three cycles during one year in the rivers Parnaíba and Poti at different spots. For the sample analyses were used means: Cetrimide Agar, Sabouraud Agar, Salmonella Shiguella Agar, Enterococcosel Agar and Mannitol Agar. After incubation the samples were picked up to obtain pure culture and performed Gram staining to confirm the isolated results in the media. The analysis procedures were performed in all collections, following the same parameters. Among the samples examined, the presence of *Enterococcus* bacteria was identified. Total of 11 strains, among them, two were resistant to all 12 types of antibiotics tested. The bacterial presence of this genus is of great importance as a bioindicator of environmental contamination, mainly by residues of faecal origin. The monitoring of the susceptibility of *Enterococcus* resistance is fundamental, because it has great ease of acquiring resistance to antibiotics, which makes it a pathogen of great public health concern.

keywords: *Enterococcus*, environmental pollution. bioindicators

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