Units. Pharmaceutical interventions are classified according to the type of adjustment made, which may be: dose adjustment, dilution, concentration, dosage, infusion time, administration schedule, inclusion request, and withdrawal request. This work is part of a research project approved by the Research Ethics Committee under opinion number 2.650.235.

**Results:** In total, medical prescriptions from 476 patients were analyzed, of which 411 contained prescribed antibiotics, and among these, 227 required pharmaceutical interventions in antibiotic therapy. The antimicrobials most involved in pharmaceutical interventions were Meropenem, Vancomycin, and Piperacillin + Tazobactam, and the most common interventions were adjustments in administration schedule, infusion time, and also dose and concentration adjustments.

**Conclusion:** The analysis of medical prescriptions carried out by the clinical pharmacist contributes to the rational use of antimicrobials, since this professional has knowledge of the particularities of each medication as well as its correct use, thus contributing to the execution of the antimicrobial stewardship program.

**Keywords:** Antibiotic therapy, Pharmaceutical intervention, Intensive care unit, Clinical pharmacy.

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## *KLEBSIELLA PNEUMONIAE* IN MARINE ECOSYSTEM: ESBL AND CARBAPENEMASE ON THE COAST OF RIO DE JANEIRO

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**Introduction/Objective:** *Klebsiella pneumoniae* stands out as an opportunistic pathogen frequently associated with healthcare-related infections. It is classified as a critical priority by the WHO regarding antimicrobial resistance due to the production of extended-spectrum $\beta$-lactamases (ESBLs) and carbapenemases, which contribute to its dissemination and clinical impact. Considering its ubiquitous distribution and potential circulation among humans, animals, and natural environments, the objective of this study was to investigate *K. pneumoniae* strains producing ESBL and/or carbapenemases isolated from marine ecosystems in the municipality of Niterói/RJ, Brazil.

**Methods:** Seawater samples were collected from three beaches in Niterói. The isolated colonies were identified through mass spectrometry (MALDI-TOF MS). After screening *K. pneumoniae* strains under selective pressure, the disk diffusion test was performed to evaluate susceptibility to 12 $\beta$-lactam antibiotics. The production of ESBL and carbapenemases was confirmed through the double-disk synergy test (DDST) and the modified carbapenem inactivation method (mCIM), respectively. Subsequently, the detection of the genes blaCTX-m-1, blaCTX-m-2, blaCTX-m-8, and blaKPC was performed by Polymerase Chain Reaction (PCR).

**Results:** Of the 298 *K. pneumoniae* strains identified, 34 (11.4%) were selected through screening for susceptibility testing. Non-susceptibility to ertapenem was observed in four (11.7%) strains, and to meropenem and imipenem in three (8.8%) strains each. Ceftriaxone showed the highest resistance rate (50.0%), followed by cefazolin (47.0%), cefepime (41.2%), and cefoxitin (38.2%). Resistance to ceftazidime and cefotaxime was 35.2% and 29.4%, respectively. The DDST was positive in 55% of the tested strains, with six strains positive for the blaCTX-m-1 gene and four for blaCTX-m-8. The mCIM was positive in 13% of the evaluated strains, with detection of the blaKPC gene in two of them.

**Conclusion:** The detection of ESBL- and carbapenemase-producing *K. pneumoniae* in the coastal region of Niterói/RJ, with the presence of clinically relevant resistance genes, suggests that these areas may be acting as reservoirs and potential sources for the dissemination of these genetic determinants, representing an emerging public health risk.

**Keywords:** *Klebsiella pneumoniae*, Carbapenemase, ESBL, KPC, Beta-lactamase.

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## LINEZOLID IN PEDIATRICS: ANALYSIS OF INDICATIONS AND HEPATOTOXICITY IN A UNIVERSITY HOSPITAL IN SOUTHERN BRAZIL

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**Introduction/Objectives:** Linezolid, an antimicrobial widely used for infections caused by resistant Gram-positive bacteria, has been increasingly used in pediatrics and is considered an alternative to vancomycin, especially in cases of previous nephrotoxicity and therapeutic failure, in addition to the advantage of not requiring serum level monitoring. However, it is known for its hepatotoxicity, particularly with prolonged use. In our hospital, its use increased from February 2022 due to cost reduction and the consequent easing of prescribing restrictions. This preliminary observational study aimed to characterize the use of linezolid in pediatric patients at a university hospital in southern Brazil, evaluating indications and potential hepatotoxicity in this population.

**Methods:** We analyzed electronic medical records of 44 pediatric patients (0 to under 18 years old) who received linezolid between July 2024 and July 2025. We collected data on