previously identified as contaminated by antimicrobials, such as the Iguaçu and Iraí rivers.

Conclusion: The evaluated urban parks may act as resistomes. Despite their ecological and social importance, human influence in these environments represents a potential risk to One Health, highlighting the need for monitoring and strategies to mitigate the spread of antimicrobial resistance.

Keywords: Antimicrobial Resistance, Beta-lactams, Environmental Health.

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CLINICAL AND MICROBIOLOGICAL PROFILE OF CEFTAZIDIME-AVIBACTAM-RESISTANT ISOLATES IN A TERTIARY HOSPITAL IN PORTO ALEGRE

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Introduction: Ceftazidime-avibactam (CAZ-AVI) is one of the main therapeutic options for infections caused by multidrug-resistant Gram-negative bacilli, especially KPC-producing Enterobacterales. However, the emergence of resistance to this antimicrobial is a growing and concerning phenomenon. The objective of this study is to describe the clinical profile of cases with isolation of CAZ-AVI-resistant microorganisms in a tertiary, private hospital in Porto Alegre, RS.

Methods: Exploratory and retrospective study including all patients with bacterial isolates resistant to CAZ-AVI (only one isolate per patient) identified between January and June 2025. Bacterial identification was performed by MALDI-TOF (bioMérieux), and susceptibility testing followed BrCAST guidelines. Carbapenemase identification was performed with a lateral flow test (NG-Test® CARBA-5 - Biotech). Clinical data and 30-day outcomes were evaluated.

Results: During the period, 97 KPC-producing isolates were identified, 19 of which showed resistance to CAZ-AVI. These isolates came from 16 patients, three of whom had a new positive isolate during hospitalization. Most patients were male (12; 75%), with a median age of 74 years (range: 34–94). Active infections caused by KPC-producing Gram-negative bacilli were identified in 12 patients. Previous KPC-positive cultures were documented in 9 patients (56%), and 4 (25%) had used CAZ-AVI during hospitalization. Microbiologically, most isolates (16; 84%) were *Klebsiella pneumoniae*, followed by *Proteus mirabilis* (1) and *Pseudomonas putida* (1). The co-production of carbapenemases was the main mechanism identified, with NDM detected in 9 isolates (56%) and VIM in 1 isolate. Regarding infection sites: respiratory tract (5; 31%), abdominal (3; 19%), urinary (3; 19%), and blood (2; 13%). In terms of outcomes, 7 patients (44%) died within 30 days after the culture.

Conclusion: The identification of multiple CAZ-AVI-resistant cases in a short time interval reflects a scenario of local emergence of resistance. The high frequency of carbapenemase co-production, especially KPC+NDM, associated with severe infections and high mortality, reinforces the need for active surveillance, infection control measures, and rational antimicrobial use strategies.

Keywords: Carbapenemase, Bacterial resistance, Treatment.

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ANTIMICROBIAL RESISTANCE PROFILES PRIORITIZED BY THE WORLD HEALTH ORGANIZATION AND MORTALITY IN BLOODSTREAM INFECTIONS CAUSED BY *ENTEROBACTER CLOACAE* COMPLEX: A MULTICENTER RETROSPECTIVE COHORT STUDY

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Introduction/Objectives: To evaluate the mortality of bloodstream infections (BSI) caused by *Enterobacter cloacae* complex (ECC) according to the resistance profile prioritized by the World Health Organization (WHO).

Methods: Multicenter, retrospective cohort study. Adults with BSI caused by ECC were included. Duplicates, missing data, and hospital stays ≤ 2 days were excluded. Data were obtained from medical records. The outcome was 30-day mortality. Antimicrobials initiated within 7 days of BSI onset and maintained for ≥ 2 days were evaluated for adequacy (defined according to *in vitro* susceptibility). ECC isolates were divided into three groups according to WHO priority resistance profile: susceptible to third-generation cephalosporins and carbapenems (WHO 1); resistant to third-generation cephalosporins and susceptible to carbapenems (WHO 2); and resistant to carbapenems (WHO 3). Two univariate analyses were performed (#1 between WHO groups and #2 between