patients diagnosed with HAIs before and after the onset of the COVID-19 pandemic.

Methods: A retrospective study conducted through analysis of data from a tertiary hospital, collected between 2016 and 2023, including information on HAI diagnoses and antimicrobial susceptibility profiles.

Results: A total of 185 patients with HAIs caused by *P. aeruginosa* were reported during the study period, 42 before the onset of the pandemic and 143 after. There was a higher occurrence of respiratory tract HAIs caused by *P. aeruginosa* compared with other sites after the onset of the pandemic, with statistically significant difference (38.1% vs. 59.4%, $p = 0.015$). The most relevant antibiotics for the treatment of *P. aeruginosa* infections were selected and susceptibility profiles were analyzed, classified as resistant and non-resistant: meropenem, amikacin, piperacillin–tazobactam, cefepime, and ceftazidime. When analyzing strains resistant to meropenem with a minimum inhibitory concentration (MIC) ≥ 32, a value indicating high resistance to the antibiotic, a statistically significant difference was observed between the two periods, with an increase in the number of strains with MIC ≥ 32 in the post-pandemic period (10.5% vs. 43.7%, $p = 0.01$). Regarding resistance to cefepime, comparison between the two periods also showed a statistically significant difference, with an increase in resistant strains in the post-pandemic period (16.6% vs. 37.6%, $p = 0.02$).

Conclusion: Changes in the HAI profile of the service were observed after the onset of the COVID-19 pandemic, with an increase in respiratory infections caused by *P. aeruginosa*, as well as an increase in strains resistant to cefepime and strains with high resistance to meropenem.

Keywords: *Pseudomonas aeruginosa*, HAIs, COVID-19, Bacterial Resistance.

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IMPACT OF EMERGENCY ACTIONS ON REDUCING THE INCIDENCE DENSITY OF PRIMARY BLOODSTREAM INFECTION ASSOCIATED WITH CENTRAL VENOUS CATHETER IN AN ONCOLOGICAL INTENSIVE CARE UNIT

Débora de Oliveira Lopes *,
Adriana S. G. Kono Magri,
Valdirene Santos Folli Cabral,
Marina Balbino Braga,
Tânia Magalhães dos Santos,
Luiz Dalfior Júnior, João Manoel Silva Júnior,
Michely Fernandes Vieira,
Vítor Falcão de Oliveira, Edson Abdala,
Odeli Nicole Encinas Sejas

Instituto do Câncer do Estado de São Paulo (ICESP), São Paulo, SP, Brazil

Introduction/Objectives: Primary bloodstream infections associated with central venous catheters (CLABSI) represent serious adverse events in oncology patients hospitalized in intensive care units (ICUs), contributing to increased morbidity, length of stay, and hospital costs. In June 2024, a marked increase in the incidence density (ID) of CLABSI was identified in a 34-bed oncological ICU. The objective of this study was to describe the extraordinary actions adopted and to evaluate their impact on reducing the infection rate.

Methods: A quasi-experimental study with retrospective analysis, conducted in a public quaternary oncology hospital. The intervention occurred between July and September 2024. Initially, a root cause analysis was conducted using the Ishikawa diagram. Subsequently, corrective measures were defined using the 5W2H tool and included: in-person training on catheter insertion and maintenance, daily bedside audits using checklists, intensified active surveillance, implementation of the central venous catheter maintenance bundle in the electronic medical record, technovigilance of vascular access devices, and feedback of indicators with a shared action plan. Intervention effectiveness was assessed by comparing the CLABSI incidence density (number of infections per 1,000 catheter-days) before and after the intervention, using a chi-square test for two Poisson rates. Statistical significance was considered at $p < 0.05$.

Results: The CLABSI ID in June 2024 reached 10.8, a value well above the 2023 annual average (3.8). After the intervention, a progressive decline in incidence density was observed: July (5.8), August (5.5), and September (0.0) infections per 1,000 catheter-days ($p = 0.005$). Care audits demonstrated greater adherence to recommended practices, with immediate correction of nonconformities. The multidisciplinary approach fostered team engagement and contributed to the sustainability of the implemented actions.

Conclusion: The adoption of structured interventions based on root cause analysis and multidisciplinary strategies significantly reduced the ID of CLABSI in an oncological ICU. The sustained decline, together with improved adherence to safe practices, demonstrates the positive impact of educational actions, systematic audits, and proactive risk management. The results reinforce the importance of continuous surveillance and engagement of healthcare teams in infection prevention.

Keywords: Catheter-Related Infections, Bloodstream Infection, Infection Control, Intensive Care Unit, Oncology.

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IMPACT ON ADHERENCE TO THE CONCURRENT CLEANING PROTOCOL IN AN ADULT INTENSIVE CARE UNIT OF A TERTIARY UNIVERSITY HOSPITAL AFTER A MULTIMODAL INTERVENTION

Michelle Oliveira Max *,
Luciana de Oliveira Matias,

Diego Cassola Pronunciato, Felipe Alberto Lei,
Diogo Boldim Ferreira,
Eduardo Alexandrino Medeiros

Serviço de Prevenção e Controle de Infecção Hospitalar, Hospital São Paulo, Hospital Universitário, Universidade Federal de São Paulo (UNIFESP), São Paulo, SP, Brazil

Introduction: Reducing healthcare-associated infections (HAIs) is a challenge in Intensive Care Units (ICUs), where multidrug-resistant bacteria (MDR) are more prevalent. These microorganisms, by forming biofilms, can survive on surfaces for weeks to months. Proper and frequent environmental cleaning of surfaces and equipment near the patient is recommended to control microbial load; however, adherence to cleaning protocols is low. Possible causes include workload overload, lack of appreciation and knowledge regarding the protocol, as well as inadequate supplies and materials for proper execution.

Objective: To evaluate the impact of a multimodal intervention on nursing staff adherence to the concurrent cleaning protocol in an ICU.

Methods: A quasi-experimental study conducted in an Adult ICU of a Tertiary University Hospital in the metropolitan region of São Paulo. The study was carried out in three periods: pre-intervention (08/01/23–10/31/23), multimodal intervention (11/01/23–04/31/24), and post-intervention (05/01/24–10/31/24). During the first period, professionals maintained their usual cleaning routine. During the intervention, training sessions were conducted, supplies were provided for cleaning practices (one disinfectant solution per bed [quaternary ammonium/biguanide] and disposable multi-use wipes), and feedback on cleaning assessments was shared with staff participation. In the post-intervention period, the implemented measures were maintained. Cleaning assessment used a fluorescent marker applied to 10 pre-established high-touch points and evaluated with an ultraviolet light flashlight. The practice was considered "compliant" when all marked points showed no fluorescence under UV light or demonstrated substantial reduction of the fluorescent marker.

Results: A total of 250 concurrent cleaning assessments were performed. The average adherence by study period was, respectively: 3.1%, 11%, and 25%. Average adherence by work shift across study periods was: morning (0%; 6.5%; 24%), afternoon (7.15%; 11.5%; 34.5%), and night (0%; 15.4%; 16%).

Conclusion: Monitoring cleaning using fluorescent markers, combined with a multimodal educational program, contributed to increased adherence to the environmental cleaning protocol of high-touch surfaces by the nursing staff.

Keywords: Intensive Care Unit, Cleaning and Disinfection, HAIs, Nursing.

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IMPLEMENTATION OF A BUNDLE OF MEASURES TO PREVENT THE DISSEMINATION OF RESISTANT MICROORGANISMS IN TWO BRAZILIAN PUBLIC HOSPITALS

Viviane Maria de Carvalho Hessel Dias [a,*],
Ana Cristina Gales [b], Eduardo A. Medeiros [b],
Karina Machado Peron [c],
Magda Machado de Miranda Costa [d],
Mara Rúbia Santos Gonçalves [d],
Luciana Silva da Cruz de Oliveira [d],
Cinthya Ramires Ferraz [e],
Vivian de Pinho Utsch Lima Berlini [f],
Linda Stéphany Bezerra dos Santos [g],
Julival Fagundes Ribeiro [g],
Maria Leticia Barbosa Braga [h],
Aline Baldo Ferreira Bergamini [h]

[a] *Hospital Nossa Senhora das Graças, Brazil*
[b] *Universidade Federal de São Paulo (UNIFESP), São Paulo, SP, Brazil*
[c] *Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo (HC-FMUSP), São Paulo, SP, Brazil*
[d] *Agência Nacional de Vigilância Sanitária (ANVISA), Brazil*
[e] *Coordenação Estadual de Prevenção e Controle de IRAS (CECIRAS) - Distrito Federal, Brazil*
[f] *Coordenação Estadual de Prevenção e Controle de IRAS (CECIRAS) - Minas Gerais, Brazil*
[g] *Hospital de Base do Distrito Federal (HBDF), Brasília, DF, Brazil*
[h] *Hospital das Clínicas da Universidade Federal de Minas Gerais (HC-UFMG), Belo Horizonte, MG, Brazil*

Introduction: Antimicrobial resistance is a public health problem with global impact.

Objective: To implement a bundle of measures for monitoring and preventing the dissemination of multidrug-resistant bacteria in two Brazilian public hospitals and to monitor outcomes during the pre-intervention (Jun/23–Feb/24) and post-intervention (Mar/24–Nov/24) periods.

Methods: Hospital A included an Intensive Care Unit (ICU) with 20 beds and a hematology unit (20 beds). Hospital B included an Emergency ICU (10 beds) and a clinical ward (39 beds). The bundle included surveillance of carbapenem-resistant *Klebsiella pneumoniae* (CR-KP) and carbapenem-resistant *Acinetobacter baumannii* (CR-AB) through admission and weekly rectal swabs; monitoring of hand hygiene adherence; contact precautions; environmental cleaning and disinfection; technical visits by specialists; an educational program via a web platform; and biweekly monitoring of indicators. All data were recorded in specific RedCap forms.