

the considerable proportion of IPC resources dedicated to daily education and feedback in clinical areas, the IPC teams reported that improvement was often difficult to achieve. **Conclusion:** Given the high burden of CROs and limited IPC resources, detailed knowledge of IPC opportunities for improvement will help hospitals target novel interventions for CRO prevention and containment. Further investigation of colonization rates and effective performance improvement methods in these settings is needed.

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**Subject Category:** Infection Prevention in Low and Middle-Income Countries

#### Impact of Transitioning to Single-Patient Rooms on Prevention of Multidrug-Resistant Organisms in a Resource-Limited Facility

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**Background:** Healthcare-associated infections (HAI) substantially increase hospital costs and lead to poor patient outcomes, particularly when caused by multidrug-resistant organisms (MDRO). To decrease MDRO transmission, isolation of colonized or infected patients in single rooms is recommended. However, single-patient isolation rooms are expensive to build and often unavailable in resource-limited hospitals. In 2023, an intensive care unit (ICU) at a large Brazilian tertiary hospital relocated from a space with an open floor plan to a newly built location with single-patient rooms. We evaluated the impact of this transition on acquisition of carbapenem-resistant Enterobacterales (CRE) colonization, HAI, and compliance with Hand Hygiene (HH) and Contact Precaution (CP) activities. **Methods:** We compared rates of CRE colonization acquisition, CRE colonization pressure, HAI, and compliance with HH and CP between pre- (March 1, 2022 – Feb 28, 2023) and post-implementation of single-rooms (March 1, 2023 - October 31, 2023) in a 12-bed surgical ICU. All patients were screened for CRE colonization on admission to the unit and weekly until discharge using rectal swab cultures. Colonization pressure was defined as the ratio of CRE-positive patient-days (PDs) to the total number of PDs. Rates of central-line associated blood-stream infections, ventilator-associated pneumonia, and catheter-associated urinary tract infections were monitored. HH and CP compliance were monitored weekly by infection prevention staff outside of the unit. Poisson regression and multiple linear regression were used to compare rates between pre- and post-implementation periods. **Results:** Healthcare acquisition of CRE colonization remained stable between pre- and post-implementation (incidence rate ratio: 0.88 (95%CI, 0.73-1.05; P=0.16) despite an increase in CRE colonization pressure of 8.6% over baseline (from 7.84% pre- to 16.39% post-implementation (95% confidence interval [CI], 4.13-12.96%; P=.001)). The latter was driven by reduced turnover of CRE-colonized patients in the post-implementation period (mean patient-day

reduced by 10.33; 95%CI, 3.06-17.61; P=0.006). Incidence of HAIs also remained stable (global incidence 3.12 vs 3.30, pre- and post-intervention, respectively; P=0.2). HH compliance was high prior to the transition (95.7%) and increased slightly but not significantly post-intervention (97.5%; P=0.3). CP compliance improved by 9.83%, especially in gown and glove changes after each patient interaction, from 90.62% pre- to 100% post-implementation (95%CI, 1.52-17.22; P=.02). Conclusion The move to an ICU with exclusively single-patient rooms was associated with increase in CP compliance. This could help explain why HAI incidence and healthcare acquisition of CRE colonization remained stable despite a significant increase in CRE colonization pressure.

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#### Assessment of 19 Operation Room and Sterile Processing Units in Puerto Rico, 2023: Preliminary Findings using a new ICAR Tool

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**Background:** Infection prevention and control assessments in healthcare settings serve as a primary resource for obtaining data and providing recommendations based on safety, compliance, and quality assurance guidelines. In Puerto Rico (PR), surgical site infections are underreported in the Epi Info platform used by the Puerto Rico Department of Health (PRDOH), mainly due to the complexity of their identification. By focusing on evaluating Operating Rooms/Sterile Processing and Distribution (OR/SPD) units in acute care facilities (ACFs), our goal is to generate new data within the Healthcare-Associated Infection/Antibiotic Resistance (HAI/AR) Program, specifically related to patient management throughout pre-operative, intraoperative, and postoperative phases, as well as reprocessing practices. **Methods:** Nineteen evaluations of ACFs' OR/SPDs were conducted from May through December 2023. Direct observations, file reviews, and personnel assessments were performed using an infection control assessment and response (ICAR) tool developed collaboratively by a team from an acute facility in PR and the HAI/AR Program staff. This ICAR Tool was customized based on guidelines from the certified Board for Sterile Processing and Distribution (CBSPD), the Association of periOperative Registered Nurses (AORN), and the Association for the Advancement of Medical Instrumentation (AAMI), among other regulatory agencies. The Division of Health Quality Promotion (DHQP) reviewed and approved the tool for use in these evaluations. **Results:** Key findings indicate that 32% of Sterile Processing Department (SPD) units restrict access to dedicated personnel with available manufacturer's instructions, yet only 36% of SPD personnel are certified in CBSPD and packaging practices. Only 10% of facilities had a water treatment system for sterilization and Immediate Use Steam Sterilization (IUSS) policies. Notably, 84% of endoscopy areas require additional equipment for cultivating endoscopes, and no facility possessed a borescope for visually inspecting endoscope lumens. Tray inspection occurred in 21%, and only 31% of staff knew the Spaulding Classification and Class V Indicators.