

Figure 2. Preliminary data characterized 75 *P. aeruginosa* isolates using AST and WGS. A) Old BMT ICU had a higher proportion of MDROs than new BMT ICU. B) 34 *P. aeruginosa* isolates were classified as clonal group 1 (squares) in the new BMT ICU. Clonal group 1 was identified before (yellow) and after (blue) patients moved into new ICU. More sequencing is necessary for isolates in grey area.

Fig. 2.

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Oral Presentation

Mitigating Hospital-Onset *Clostridioides difficile*: Evaluation of a Standardized Environmental Hygiene Program in Eight Hospitals

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Background: Despite ongoing efforts over the past 3 decades, hospital-onset *Clostridioides difficile* infection (HO-CDI) continues to challenge interventions aimed at its prevention and control. We describe the impact of a model environmental services (EVS) program on the incidence of HO-CDI across 8 hospitals that are part of a nationwide integrated health system. **Methods:** Eight acute-care hospitals with 44–532 beds (mean, 263 beds) in 6 states with stable endemic HO-CDI incidence densities independently implemented identical sporidical environmental hygiene interventions in 2017. The program combined the use of a hydrogen peroxide/peroxyacetic acid surface disinfectant for all patient-zone hygienic cleaning combined with a structured model EVS cleaning program that included optimized cleaning and disinfection technique, staff training, and auditing with objective performance feedback, which aligned with 2008 HICPAC/CDC categories I and II as well as 2010 CDC Guidance Level II monitoring program recommendations. After a 3-month phase-in, we compared NHSN-reported LabID HO-CDI SIRs for 18 months before and 12 months after implementation of the program. Results were not shared between sites and data were not collated by the authors until a year after the

postintervention results were initially available. Multiple possible confounding factors were evaluated and determined not to have identifiably affected the outcome. **Results:** Mean preintervention HO-CDI SIRs over the 18 months measured ranged from 0.5 to 1.4 (mean, 1.0 for the group). Following the wash-in period, SIRs decreased precipitously in all sites to a mean of 0.42 for the group by the end of 12 months of the intervention. ($P < .0001$) (Fig. 1). Individual site improvement ranged from 20% to 92% (mean, 57%) (Fig. 2.) **Conclusions:** Overall, HO-CDI SIRs decreased almost 60% in the study hospitals following daily sporidical disinfection cleaning of all patient-zone surfaces in association with ongoing programmatic optimization of cleaning practice. As predicted by earlier single-site studies reporting a favorable impact of sporidical disinfectant cleaning in outbreak settings, this multisite quasi-experimental study has illustrated the substantial potential impact of hospital-wide sporidical disinfection integrated with objectively sustained optimized thoroughness of cleaning to decrease the incidence of HO-CDI.

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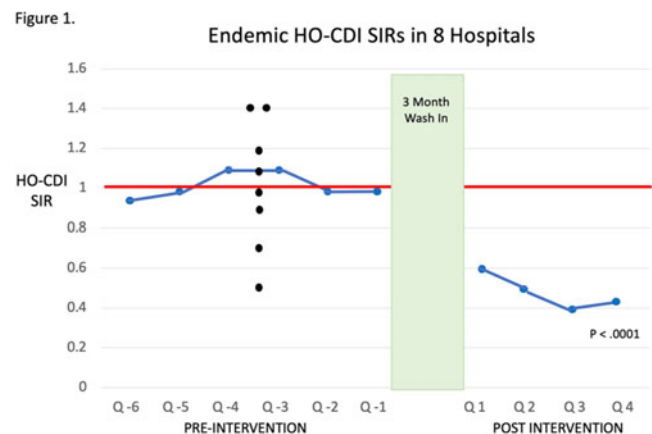


Fig. 1.

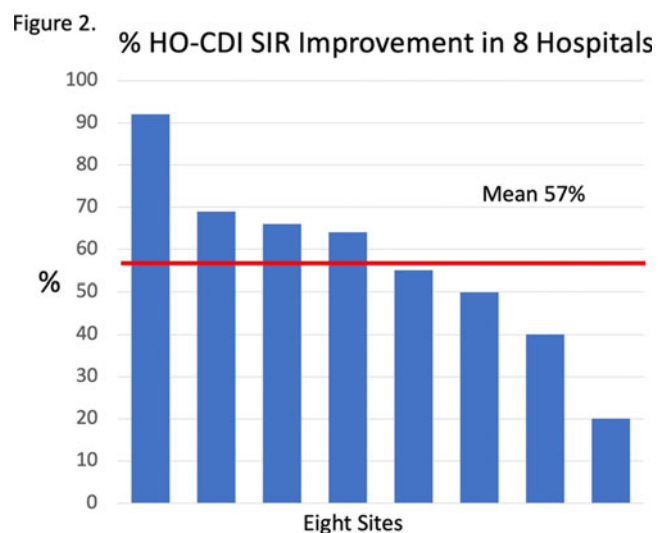


Fig. 2.