Conclusions: The transition from mainly 2- and 4-person rooms to 100% single-patient rooms resulted in a significant decrease in environmental contamination, even though the number of patients colonized with HRMO slightly increased. No molecular typing to determine transfer from environment to patients and vice versa has yet been performed. Future sampling is needed to determine whether the low environmental contamination is a long-term effect of the transition to single rooms.

Presentation Type:
Poster Presentation

A Bundled Approach to Reduce Delayed Testing and Hospital-Acquired Cases of *Clostridioides difficile* Infection

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Background: *Clostridioides difficile* is a leading cause of nosocomial infectious diarrhea in developed countries, and it has a significant economic impact throughout the world. Early detection of the pathogen and its toxins is critical because early treatment significantly reduces infection-related morbidity, mortality, and medical cost. Surveillance of healthcare-associated infections (HAIs) is conducted using the NHSN standardized infection ratio (SIR). This metric allows comparison of a facility's observed infection rate to a national benchmark. The SIR can be elevated due to both a lack of institutional criteria for stool submission and the use of highly sensitive but poorly specific testing as a standalone test for diagnosis. The SIR can be artificially elevated by inclusion of *C difficile* carriers rather than infected patients due to inappropriate testing and overly sensitive methods. We aimed to determine the impact of an institutional nursing-driven protocol for stool submission as well as 2-step testing on the SIR. **Methods:** Starting from the fourth quarter of 2018, we instituted a nursing protocol for initiation of *C. difficile* testing. If the patient had ≥3 soft, loose, or liquid stools in 24 hours within the first 3 days of admission, they were placed on contact precautions and an unformed stool sample was submitted for *C. difficile* nucleic acid amplification testing (NAAT). A positive result prompted further evaluation with a stool enzyme immunoassay toxin test for confirmation of active infection. From hospital day 4 onward, stricter criteria were implemented for testing for *C. difficile* infection. Data were extrapolated for calculation of a quarterly SIR. This value was then compared to retrospective SIR data from the first quarter of 2016 to the third quarter of 2018. **Results:** The quarterly total of hospital-onset *C. difficile* infections from the first quarter of 2016 to the third quarter of 2018 ranged from 24 to 39 incidents per quarter. After implementing the nursing-driven protocol and 2-step testing, the quarterly total of hospital onset *C. difficile* infections decreased to 5–6 per quarter. The SIR prior to initiation ranged from 0.66 to 1.37 and decreased to 0.306–0.386 after the nursing-driven protocol and 2-step testing were implemented. **Conclusions:** Implementation of both an institutional nursing-driven protocol for stool submission and a 2-step testing protocol reduced the number of quarterly hospital-onset *C. difficile* events as well as our facility's quarterly SIR to below the national standard.

Presentation Type:
Poster Presentation

A Clinical Decision Support Intervention to Improve Inpatient Pediatric Influenza Vaccination

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Background: Pediatric influenza vaccination rates remain <50% in the United States. Children with chronic medical conditions are at higher risk of morbidity and mortality from influenza, yet most experience missed opportunities for immunization in outpatient settings. In an adult cohort study, 74% of patients who had not received the influenza vaccine before or during hospitalization remained unvaccinated through the rest of the season. Thus, inpatient settings represent another important opportunity for vaccinating an especially susceptible population. In addition, 4 published studies have shown promise in improving inpatient pediatric influenza vaccination. However, these studies had limited effect sizes and included interventions requiring ongoing maintenance with dedicated staff. In this study, we hypothesized that a clinical decision support (CDS) intervention designed with user-centered design principles would increase inpatient influenza vaccine administration rates in the 2019–2020 influenza season. **Methods:** We performed a workflow analysis of different care settings to determine optimal timing of influenza vaccine decision support. Through formative usability testing with frontline clinicians, we developed electronic health record (EHR) prototypes of an order set module containing a default influenza vaccine order. This module was dynamically incorporated into order sets for patients meeting the following criteria: ≥6 months old, no prior influenza vaccine in the current season in our medical system or the state immunization registry, and no prior anaphylaxis to the vaccine. We implemented the CDS into select order sets based on operational leader support. We compared the proportion of eligible hospitalized patients in which the influenza vaccine was administered between our intervention period and the 2018–2019 season (historical controls). To account for secular trends, we also compared the vaccination rates for hospitalized patients exposed to our CDS to those that were not exposed to the CDS during the intervention period (concurrent controls). **Results:** During the intervention period (September 5, 2019–November 1, 2019), influenza vaccine was administered to 762 of 3,242 (24%) of eligible patients, compared to 360 of 2,875 (13%) among historical controls (*P* < .0001). Among the 42% of patients exposed to the CDS, vaccination rates were 33% compared to 9% for concurrent controls (p < .0001). Our intervention was limited by end-user uptake, with some physicians or nurses discontinuing the default vaccine order. In addition, early in the intervention, some vaccines were ordered but not administered, leading to vaccine waste. **Conclusions:** CDS targeting eligible hospitalized patients for influenza vaccination incorporated early into the workflow of nurses and ordering