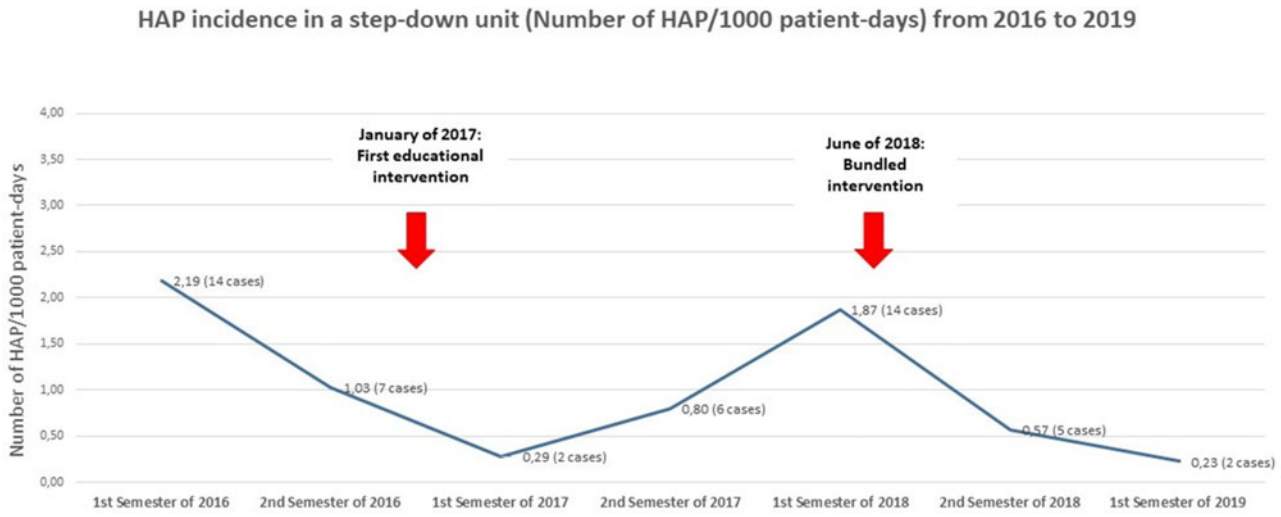

Fig. 1.

Presentation Type:
Poster Presentation

A Survey of Antibiotic-Resistant Microorganisms in Hospital Sink Drains

Lauren Franco, Centers for Disease Control and Prevention; Christine Ganim, CDC; Terri Davy; Windy Tanner, Yale University; Rodney Donlan

Background: Handwashing sinks in healthcare environments are reservoirs for healthcare pathogens and antibiotic-resistant microorganisms (ARO). We investigated the distribution of HCP and ARO within and among handwashing sinks in healthcare settings. To do this, we determined the differences in the number of ARO between samples within a sink (biofilm vs planktonic samples), between sink types (healthcare worker [HCW] vs patient room sinks), and between hospitals in the same city. **Methods:** Tap water, sink surface, drain cover, tail pipe, p-trap water and p-trap samples were collected from 2 patient room sinks and 2 HCW sinks over 11 months in 2 acute-care hospitals. Suspected pathogens were isolated from selective media (Pseudosel, Chromagar KPC, and MacConkey with 2 mg/L cefotaxime) and identified via MALDI-ToF. Isolates confirmed to be healthcare pathogens were characterized via disk diffusion to determine their antibiotic susceptibility according to CLSI guidelines. Isolates not susceptible to carbapenems (meropenem or ertapenem) were tested further via the modified carbapenem inactivation method to detect carbapenemase production. **Results:** *Pseudomonas aeruginosa* and Enterobacteriaceae (*Enterobacter* spp, *Klebsiella* spp, and *Citrobacter* spp) were the most frequently isolated pathogens. Among these isolates (195 *P. aeruginosa* and 42 Enterobacteriaceae isolates), 28.5% of *P. aeruginosa* and 85.7% of Enterobacteriaceae were nonsusceptible to 1 or more of the antibiotics tested. Of the isolates that were nonsusceptible to a carbapenem (46 of 237; 19%), none displayed phenotypic carbapenemase production. Other mechanisms of resistance have not been confirmed. There was no significant difference in the percentage of nonsusceptible HCP isolated from biofilm samples (from p-trap and tail pipe) compared to planktonic (p-trap water) samples ($P > .05$ for *P. aeruginosa* and Enterobacteriaceae). A greater percentage of resistant or intermediate isolates was recovered from patient room sinks than from HCW sinks ($P < .05$) for both *P. aeruginosa* and Enterobacteriaceae isolates (76.4 vs 32.9% for Enterobacteriaceae, 25.6 vs 0.3% for *P. aeruginosa*). We detected no significant difference in percentage of nonsusceptible isolates between the 2 hospitals sampled ($P > .05$). **Conclusions:** This survey of healthcare sinks supports previous work citing that they are reservoirs for HCP and ARO. This work further examines the distribution of HCP and ARO within and among sinks in these environments. Our findings thus far in the 2 hospitals studied reveal a higher percentage of ARO in patient sinks than in HCW sinks. This finding may suggest a higher input of ARO from patient use or greater selective pressure in patient room sinks.

Disclosures: None
Funding: Lauren Franco, Centers for Disease Control and Prevention
Doi:10.1017/ice.2020.612

Presentation Type:
Poster Presentation

Achieving a Sustained Decrease in Facility-wide *C. difficile* Incidence in an Acute-Care Hospital in New York City

Marie Moss, Mount Sinai Beth Israel; Waleed Javaid, Mount Sinai Downtown; Jordan Ehni, Mount Sinai Health System; Latrace Maria; Bernard Camins, Icahn School of Medicine at Mount Sinai; Barbara Barnett, Mount Sinai Beth Israel

Background: Mount Sinai Beth Israel is a 350-bed, acute-care hospital located on Manhattan's Lower East Side. In 2014, the hospital had reached a high (9.8 cases per 10,000 patient days) hospital-onset (HO) *C. difficile* rate. By 2015, this rate had decreased to 5.6 cases per 10,000 patient days because of compliance with established *C. difficile* bundle practices performed by nursing and environmental services. Despite these interventions, HO *C. difficile* events continued to occur. We realized that more had to be done to gain control over our rates. To determine areas for further improvement, infection prevention held an RCA meeting for every positive hospital-onset result. We discovered from these RCAs that many *C. difficile* tests were ordered without a valid indication. We believed that measures

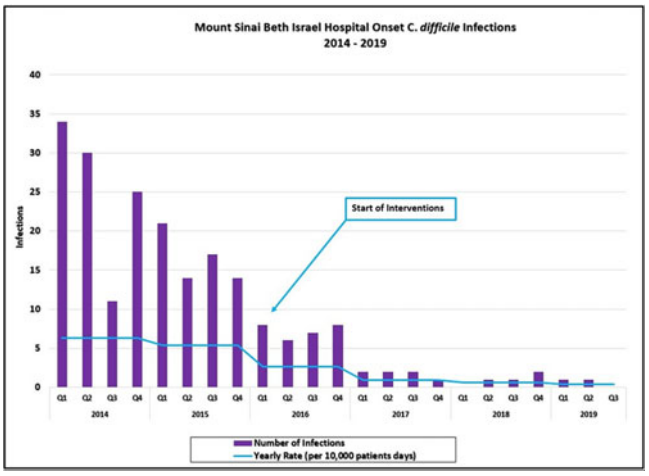

Fig. 1.

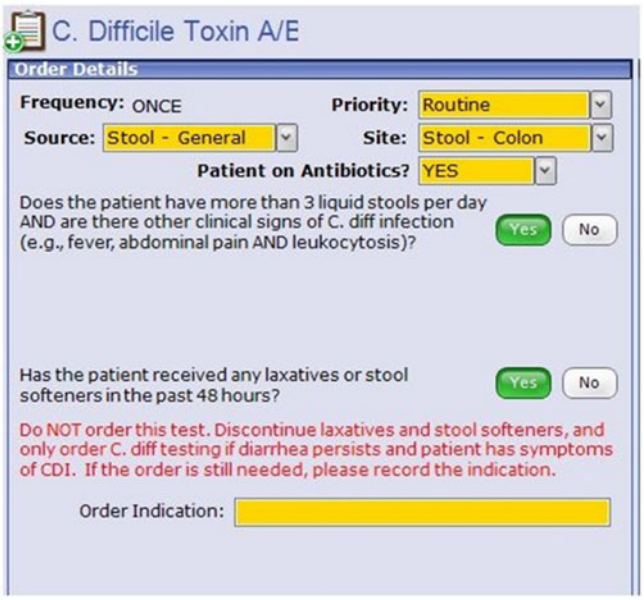

Fig. 2.

could be taken to ensure that only *C. difficile* tests with a valid indication would be ordered. **Methods:** We used the Plan-Do-Study-Act (PDSA) model to look at what changes could be made to reduce our rate and to sustain this reduction. Multidisciplinary meetings of leaders and frontline staff were held to determine why patients were being tested for *C. difficile*. The following indications were revealed: repeat tests for same patient to "catch" a positive result after the first test was negative; inclusion as part of patient "pan-culturing"; testing patients who had diarrhea after receiving laxatives; and *C. difficile* cultures for patients who were asymptomatic. Starting in 2016, 3 consecutive interventions were implemented in fairly rapid succession. First, a *C. difficile* testing algorithm was developed. Second, a *C.*

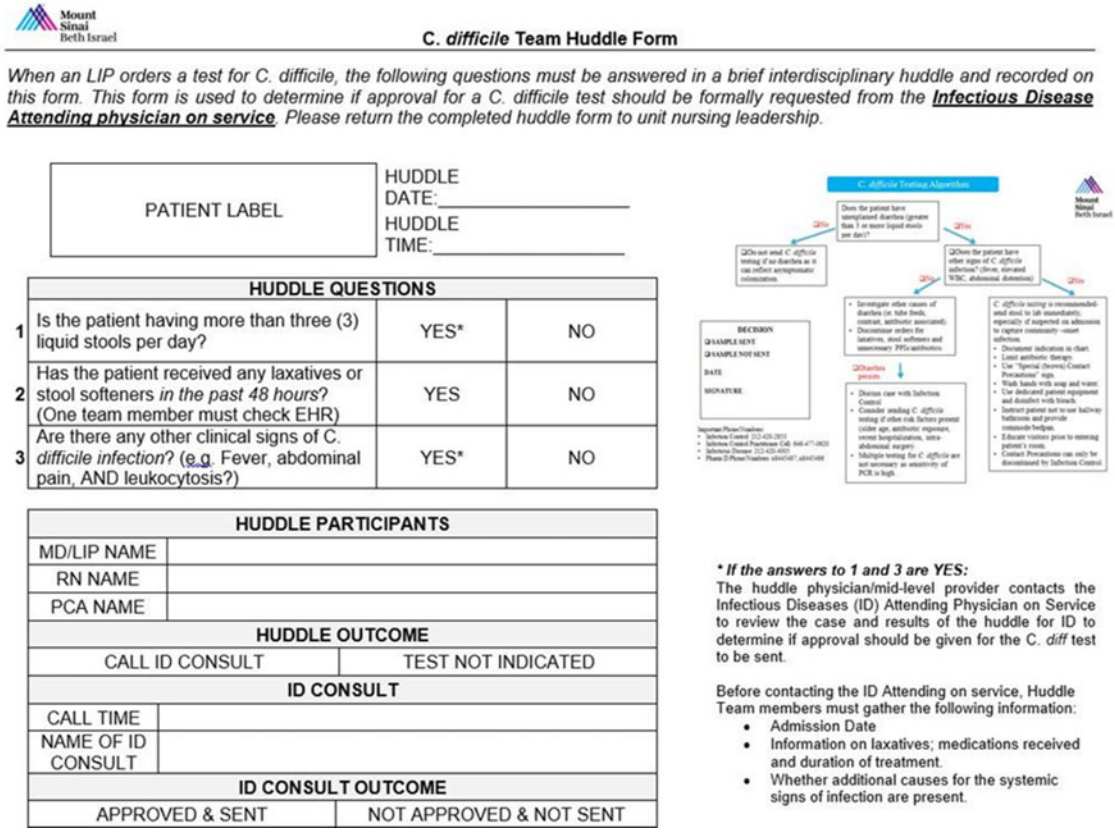

Fig. 3.

https://doi.org/10.1017/ice.2020.613 Published online by Cambridge University Press

difficile test order protocol with a "hard stop" to prevent inappropriate indications was placed in the EMR. Last, a multidisciplinary form, called the *C. difficile* Team Huddle Form, was created for use by all members of the patient's team. This form gave MDs, RNs, and PCAs a framework to decide together whether the test was indicated for the patient. If the team agreed to test, the ID physician on service was called for approval. **Results:** These 3 interventions yielded a sustained and statistically significant decrease ($P = 0.0007$) in the facility-wide hospital-onset *C. difficile* from a preintervention rate of 5.6 cases per 10,000 patient days in 2015 to 0.4 in 2019. **Conclusions:** Multidisciplinary use of the *C. difficile* testing interventions led to further reduction of the hospital-onset *C. difficile* infection rate. To sustain this rate reduction over time, infection prevention specialists must work with providers and frontline staff on an ongoing basis.

Funding: None
Disclosures: None
Doi:10.1017/ice.2020.613

Presentation Type:
Poster Presentation

Acquisition Rate of Scabies in Employees After Care of an Undiagnosed Crusted Scabies Patient

Patrick Crowley, Baylor Scott & White Health; Hector Ramirez, Baylor Scott & White Memorial Hospital; Brennan Ochoa, Baylor Scott & White Health; Karen Brust, Baylor Scott & White Health

Background: Scabies is a contagious dermatosis caused by human mites, (*Sarcoptes scabei,* variant *hominis).* In crusted (Norwegian) scabies, the burden of mite infestation is higher and up to 2 million per person, facilitating easy skin-to-skin transmission and nosocomial transmission. We describe a case of undiagnosed crusted scabies and subsequent transmission to employees in our hospital. **Methods:** A 90-year-old female was admitted to our 636-bed, nonprofit, academic hospital for 22 days prior to diagnosis of crusted scabies by skin scraping. The patient was admitted to 2 different medical-surgical wards and the medical intensive care unit. We

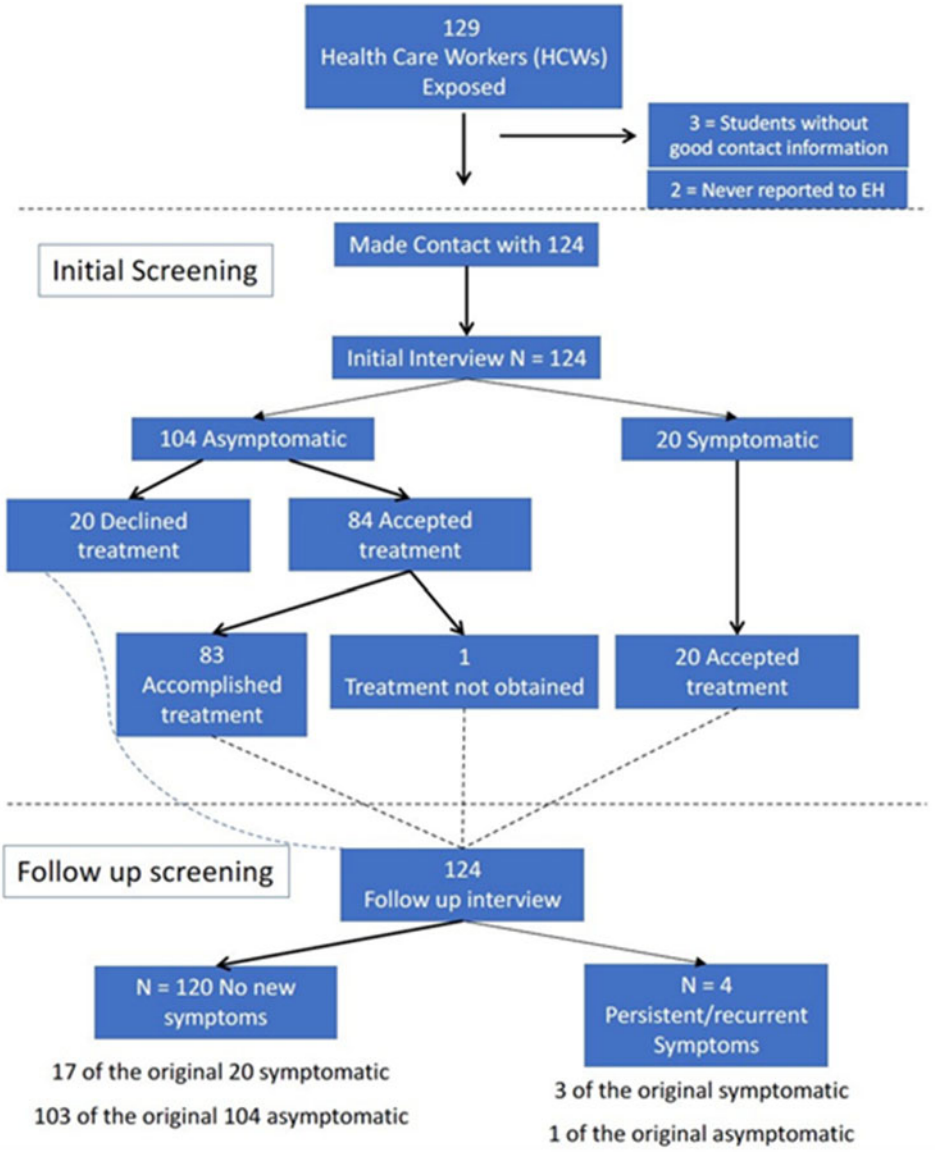

Fig. 1.