was calculated as CFU per plate over swabbed surface area and a cutoff of 2.5 CFU/cm^2 was used to determine whether a surface passed inspection. Limited data exist on acceptable microbial limits for healthcare settings, but the aforementioned cutoff has been used in food preparation. **Results:** Over a year-long period, terminal cleaning had an overall fail rate of 6.5% for 413 surfaces swabbed. We used the protocol to compare the normal application of either peracetic acid/hydrogen peroxide or bleach using microfiber cloths to a new method using sodium dichloroisocyanurate (NaDCC) applied with microfiber cloths and electrostatic sprayers. The normal protocol had a fail rate of 9%, and NaDCC had a failure rate of 2.5%. The oxygen meter had the highest normal method failure rate (18.2%), whereas the curtain had the highest NaDCC method failure rate (11%). In addition, we swabbed 7 rooms previously occupied by *C. auris*–colonized patients for *C. auris* contamination of environmental surfaces, including the mobile medical equipment of the 4 patient care units that contained these rooms. We did not find any *C. auris*, and we continue data collection. **Conclusions:** A systematic environmental surveillance system is critical for healthcare systems to assess touch-free disinfection and identify MDRO contamination of surfaces.

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The Great Masquerade: Identification of Clinically Relevant *Clostridioides difficile* Infections

Emily Sickbert-Bennett, UNC Health Care; Lisa Stancill, UNC Health Care; Lauren DiBiase, UNC Health Care; Kevin Alby, UNC Health Care; David Jay Weber, University of North Carolina at Chapel Hill

Background: Despite clear guidance for appropriate testing of symptomatic patients for *Clostridioides difficile* testing (McDonald et al), the ideal testing methodology remains unresolved. Laboratories currently use different algorithms that incorporate enzyme immunoassay (EIA) testing for toxin, glutamate dehydrogenase (GDH) antigen, and polymerase chain reaction (PCR) testing in combination or as a single test. At UNC Hospitals, a large academic hospital with nearly 1,000 beds in the ninth most populous state in the United States, patients are currently tested by an EIA test for toxin and GDH antigen first, and discordant toxin/GDH results are referred for PCR testing. Previous studies have demonstrated that detection of toxin by EIA is a better predictor of *C. difficile* infection (CDI) complications (Polage et al). **Methods:** We investigated all patients who were tested for *C. difficile* from July 2018 to June 2019. Within each testing methodology and result, we assessed the percentage of patients with at least 3 loose stools documented within a 24-hour period, percentage with a severe episode based on white blood cell (WBC) counts >15,000 cells/mL, or percentage with a serum creatinine level >1.5 mg/dL. Fisher-type confidence intervals were calculated for each proportion. **Results:** Patients positive for *C. difficile* by the EIA method had 66.9% appropriate loose stool documentation (95% CI, 57.4%–75.5%), whereas patients with EIA-indeterminate (toxin negative, GDH positive) and positive by only PCR had 49.7% appropriate loose stool documentation (95% CI, 42.7%–56.8%). *C. difficile* patients that tested negative had 48.1% appropriate loose stool documentation (95% CI, 46.0–50.2%). In addition, patients positive by the EIA method had nearly double the proportion of severe disease by WBC or creatinine criteria compared to patients who were either positive by PCR or who tested negative (Table 1). **Conclusions:** Patients positive for *C. difficile* by the EIA method were statistically more likely to meet criteria for loose stool documentation. There was no statistically significant difference between patients that tested positive only by PCR or who tested negative. The percentage of patients with severe episode criteria based on WBC or creatinine was nearly doubled between those who tested positive by EIA and PCR (20% vs 10%), although this finding was not statistically significant. The percentage with severe disease (WBC or creatinine) was nearly identical among patients who were positive by PCR and who tested negative. These findings demonstrate that documentation of loose stool is a more sensitive indicator of toxin detection than either clinical parameter, reinforcing the importance of stool documentation in evaluating patients for *C. difficile* testing.

Table 1.

Table: Markers of CDI severity by test type

	% with appropriate loose stools (95% CI)	% severe WBC (95% CI)	% severe creatinine (95% CI)
EIA Positive	66.9% (57.4, 75.5%)	21.4% (14.2, 30.2%)	20.5% (13.5, 29.2%)
PCR Positive	49.7% (42.7, 56.8%)	10.7% (6.8. 15.8%)	13.7% (9.3, 19.1%)
Negative	48.1% (46.0, 50.2%)	10.8% (9.6, 12.2%)	11.7% (10.3, 13.1%)

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The ICEL Healthcare-Associated Infection Probability Equation

Mark Moore, John's Hopkins Bayview Medical Center

Backround: In American hospitals alone, the CDC estimates that hospital acquired infections (HAIs) account for an estimated 1.7 million infections and 99,000 associated deaths each year.[1] Although the United states and most industrialized nations have made strides in lowering the overall HAI rate by taking critical steps to reduce HAIs, an overall formula that combines a global risk assessment per patient for HAI acquisition has yet to be established. To address this issue, we developed the ICEL equation. This equation uses a probabilistic argument to estimate the likelihood of HAI acquisition and to promote infection control dialogue among healthcare practitioners from diverse healthcare disciplines. **Methods:** We defined HAI risk using the ICEL acronym as follows: HAI risk = (I + C + E + L), where I is invasive devices present; C is patient-specific characteristics; E is the average number of pathogenic organisms in the patient environment; and L is the length of stay. A simple scale of 1–10 points is subjectively assigned for each of the following categories:

I = (number of invasive devices / surgeries / % body surface areas open)

C = Patient specific characteristics (immune system integrity / immunomodulators / radiation exposure / chemotherapy, etc)

E = Environmental conditions / cleaning (average number of pathogenic bacteria in room, 100% hand hygiene compliance, patient / staff colonization, etc)

L = Length of stay days risk, where 0–3 days is low risk, 4–7 is moderate risk, and 8–10+ is high risk

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