95% CI, 0.14–0.99; P = 0.04.) However, acquisition rates of vancomycin-resistant Enterococcus spp. and multidrug-resistant Acinetobacter baumannii did not significantly decrease. The hazard of acquiring hospital acquired pneumonia during intervention period compared with baseline period was 0.46 (95% CI, 0.23–0.94; P = 0.03). There were not significant reduction in hospital acquired BSI, UTI, and CDAD, after photostellar antimicrobial coating.

Conclusion. MRSA acquisition rate and hospital acquired pneumonia were significantly reduced after photostellar antimicrobial coating. This study provides evidence that photostellar antimicrobial disinfection can be an adjunctive measure to control MRSA acquisition in high incidence setting.

Disclosures. All authors: No reported disclosures.

1150. Cleaning High Touch Surfaces of Patients’ Rooms: Make It Easier, and It Simply Gets Cleaner

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Background. The healthcare environment has been established as a reservoir for human pathogens and specifically multidrug-resistant organisms (MDRO). High touch surfaces and fomites in a patient’s room mediate transmission between infected and uninfected persons and personnel. Efforts to reduce hospital-associated infections due to MDROs often focus on room cleaning; however, adherence to and thoroughness of cleaning pose significant challenges.

Methods. A crossover trial was implemented in January 2016 (for 15 months) at Assaf Harohe Medical Center (Israel) in four identical medical units. Single-use wipes (Clinell®; universal wipes and sporicidal wipes for rooms of patients with C. difficile), were compared with common practices which consisted of reusable cloths and bleach (1,000–5,000 ppm). Six-month cleaning and intervention periods were used on units in alternating sequences, separated by washout periods. Cleaning was monitored twice a week (bedrail, bedside table, clinical binder, call button, and lamp switch), by a fluorescent dye indicator substance (Clinell®). Comparisons used GEE with clustering for room. Staff adherence (assessments and was more common in the intervention group (34% vs. 12%; OR = 3.7; 95% CI, 0.14–0.99; P = 0.01). Cleaning adherence was highest for the bed rail (71%) and lowest for the call button (38%). The use of the wipes had the largest effect on adherence for the light switch (59% vs. 26%; OR = 4.2; P < 0.001). Intervention timing was not associated with overall adherence (P = 0.10). 94% of staff reported overall satisfaction of “very good” or “excellent,” and 96% of staff reported that use of the wipes shortened the cleaning process.

Conclusion. Use of cleaning wipes resulted in greater adherence to room cleaning and the method was reported to be acceptable to staff. Future aims of this large study (over 10,000 patients were enrolled and data collection not yet completed) are to determine the impact of this intervention on rates of hospital-acquired infections, MDRO acquisition, and mortality.

Disclosures. E. T. Martin, Clinell: Grant Investigator, Research grant. D. Marchaim, Clinell: Grant Investigator, Grant recipient.

1151. A Safer, More Effective Method for Cleaning and Disinfecting GI Endoscopic Procedure Rooms

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Background. Modern endoscopy suites (E&O) are high-tech environments that require a high level of cleaning consistency and frequency. Small mesh baskets holding alcohol prep pads labeled with brightly colored disinfecting results.

Methods. Two similar GI ASCs, each with two procedure rooms, were studied. One ASC received standard procedures in lowering ATP scores following endoscopic procedures in procedure rooms. HOCl terminal misting of the rooms further improves the cleaning and disinfection. Small mesh baskets holding alcohol prep pads labeled with brightly colored disinfecting results.

Results. After terminal cleaning, the average ATP score in the HOCl CLEANING and DISINFECTING study arm was significantly lower than that for the STANDARD CLEANING and DISINFECTING rooms (P < 0.0017) (Figure 1). In evaluating the effect of the HOCl misting, the ATP scores in the HOCl rooms had a post cleaning, pre-misting average score of 2.7. The post misting average score was 1.7, showing that misting produced a further significant reduction (improvement) in ATP scores (P < 0.01).

Conclusion. HOCl cleaning and disinfection in GI ASCs is more effective than standard procedures in lowering ATP scores following endoscopic procedures in procedure rooms. HOCl terminal misting of the rooms further improves the cleaning and disinfecting results.

Disclosures. B. Overholt, HOCl Solutions: Shareholder, none to date.

1152. Leveraging Human Factors Engineering to Optimize Low-level Disinfection of Redesmede Medical Tools

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Background. Inadequate cleaning and disinfection of shared medical equipment can lead to healthcare-associated infections and outbreaks. Stethoscopes were identified as the most commonly used piece of shared equipment at our institution, but cleaning practices were inconsistent among providers. We aimed to assess provider attitudes and practices around stethoscope disinfection and to subsequently implement a test of change (TOC) supported by human factors observations to improve cleaning consistency and frequency.

Methods. We conducted an anonymous electronic survey via SurveyMonkey paired with human factors observations in a free-standing children’s hospital. We surveyed physicians, nurses, and advanced practice providers to identify barriers to regular stethoscope cleaning. Quantitative results, human factors observations, and workflow simulations on a single unit were used to design an intervention to standardize low-level disinfection. Small mesh baskets holding alcohol prep pads labeled with brightly colored signage were installed by the exit of each patient room on one trial unit. Following implementation, a post-survey and direct observations on the unit were conducted.

Results. Of those surveyed healthcare providers who completed the pre-survey (n=38), 84% believed stethoscopes pose an infection risk to patients. However, only 38% of respondents reported cleaning their stethoscope between patient encounters. The most cited barrier to cleaning was a lack of easily accessible cleaning product (49%). After the unit-based TOC, alcohol from baskets were utilized by 80% of the 25 surveyed providers. A reported increased frequency of cleaning due to accessibility. Additionally, the brightly colored signage was a visual cue to disinfect equipment. Increased satisfaction of families reinforced the behavior. Direct observations revealed an increased frequency of cleaning while qualitative interviews elicited increased awareness from staff.

Conclusion. Leveraging human factors engineering to inform the placement and design of easily accessible disinfection supplies correlated with increased frequency of stethoscope cleaning by healthcare providers. Future steps include implementation in all inpatient care areas.

Disclosures. All authors: No reported disclosures.
1153. UV-C Technology Is an Effective Adjunct to Terminal Cleaning in Environmental Pathogen Reduction in a Tertiary Pediatric Hospital
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**Background.** Effective environmental surface cleaning plays a vital role in reducing transmission of hospital-acquired infections. There remains a paucity of data in the pediatric literature regarding environmental pathogen reduction utilizing UV-C light. The objective of this study was to evaluate the reduction of environmental pathogens using UV-C light (Clorox Optimum-UV) as an adjunct to terminal cleaning in a free-standing tertiary pediatric hospital.

**Methods.** Upon patient discharge, a subset of patient rooms were tested for pathogens. Surface swabs were collected from high touch surfaces (call button, telemetry monitor, door handle, flush handle of toilet, faucet, bed rail, phone, keyboard pad, mouse, side table, dresser, and light switch). After terminal cleaning of the room, per hospital protocol the Clorox Optimum-UV completed one or two cycles of 5 minutes each depending on the dimensions of the room. Post-UV-C surface swabs were obtained from the same high touch areas in the room. Total colony count was reported from each of the surfaces swabbed. Swabs were streaked onto non-selective agar and incubated at 30-35°C for 72-96 hours. Mean plate colony count was determined manually and reported as CFUs/swab. Data analysis was performed in Minitab 18.1. Fisher least significant difference (LSD) test was used to describe the difference between total bacterial counts at each time point (Pre-clean: dirty room, Post-clean: pre-UV-C/ post-terminal clean, Post-UV: post-UV-C light cycle).

**Results.** Mean total colony counts prior to cleaning the room was 92.3 CFU (33 surfaces). Pre-UV-C light 45.6 CFU and post-UV-C light 5.8 CFU (64 surfaces). Total bacterial counts are represented in Graphs 1 and 2. Upon multivariate analysis, the time the sample was taken (preclean, postclean, or post-UV) was the single explanatory variable for the differences seen in the means of total bacterial counts (P < 0).

**Conclusion.** Our study demonstrates that UV-C disinfection is a highly effective, adjunctive cleaning method with standard terminal cleaning to reduce bacterial burden from environmental surfaces.

**Graph 1:** Total Bacterial Counts (CFU) at each timepoint of surface sampling.

**Graph 2:** Total Bacterial Counts (CFU) with 95% Confidence Intervals at each timepoint of surface sampling.

Disclosures. A. Lucas, Clorox: Research Contractor, Grant recipient. M. Nayakwadi Singer, Clorox: Grant Investigator, Grant recipient.

1154. Comparison of Five Testing Modalities for the Assessment of Patient Environment Cleanliness
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**Background.** Microbial contamination of the patient environment has been associated with healthcare-associated infections. Objective assessment of environmental cleanliness is recommended by the CDC to identify improvement opportunities. Multiple methods are currently used to assess cleanliness and microbial dynamics differ in their sensitivity, specificity, cost, ease of use, and turnaround time. We compared five assessment methods to examine these characteristics.

**Methods.** The bedrail, overbed table, remote control, and toilet seat in occupied patient rooms were sampled and assessed with: adenosine triphosphate (ATP) luminescence technology (LT), Replicate Organism Detection And Counting (RODAC) plates, C diff Banana Broth™ (CDBB), conventional aerobic culture (CC) and antimicrobial susceptibility testing, and shotgun next-generation sequencing (NGS) and analysis using metagenomic software.

**Results.** One hundred forty surfaces from 35 rooms were sampled. Of 70 surfaces sampled by both ATP LT and RODAC, 42 (60%) had concordant “pass” or “fail” results. Of 28 discordant samples, 26 (93%) passed by RODAC but failed by ATP LT. (CDBB testing identified Clostridoides difficile on two surfaces in one room; C. difficile was also identified by NGS in this room. NGS had 100% concordance with organisms identified by CC, and identified approximately 20 additional organisms not identified by CC per surface. 38% of organisms identified by NGS were potential pathogens, compared with 13% correlated between the two methodologies (RODAC bacterial concentrations and ATP LT ATP concentrations) and quantitative components of CC (presence/absence of organisms) and NGS (read numbers).

**Conclusion.** ATP LT and RODAC plates both provide useful quantitative cleanliness data, although high ATP values did not always indicate the presence of viable aerobic bacteria. CDBB may be a useful method for identifying C. difficile in the environment, but larger studies of the performance characteristics of CDBB are needed. CC and NGS provided useful organism identification information, but NGS had higher sensitivity for detecting potentially pathogenic organisms. The clinical implications of NGS results must be further studied and cost and technical expertise are important considerations.

Disclosures. N. B. O’Hara, Biotia: Board Member, Employee and Shareholder, Syneos Health; L. F. Westblade, Accelerate Diagnostics: Grant Investigator, Grant recipient. Bionerieux: Grant Investigator, Graduate student. Allergan: Grant Investigator, Grant recipient. Merck: Grant Investigator, Grant recipient.

1155. Excessive Movement, Unnecessary Contamination: Clostridium difficile Patients in the Hospital
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**Background.** The environmental contamination of Clostridium difficile in acute care hospital rooms is associated with increased risk of infection for subsequent patients. Patients that stay in a room following a patient with a C. difficile infection (CDI) have an increased risk of CDI compared with patients whose previous resident did not have CDI. The objective of this study was to characterize the room movement of CDI patients in a Level 1 Trauma Medical Center.

**Methods.** A patient with CDI was defined as an inpatient with a positive C. difficile test through rapid serology, C. difficile polymerase chain reaction (PCR) or multiplex-stool PCR from March 2017 to March 2018. Patients were classified as either community-onset (CO, positive test ≤ 4 days after admission) or hospital-onset (HO, positive test > 4 days after admission). Additionally, the number of rooms each CDI patient resided in during one admission following a positive C. difficile test was determined and the proportion of patients who stayed in one to two rooms or at least three rooms post visit was calculated.

**Results.** There were a total of 244 CDI patients identified (172: CO, 72: HO) between March 2017 and March 2018. The mean time from admission to positive test was 12.4 hours post-admission for CO-CDI patients and 251.1 hours for HO-CDI patients. Almost 40% of HO-CDI patients (36.1%, n = 72) stayed in at least three rooms during their hospital admission compared with <30% of CO-CDI patients (28.4%, n = 172).

Disclosures. J. Simon, Jacobs Technion-Cornell Institute: Advisory board membership, Honoraria, Grant investigator, Consultant, Speaker, Syneos Health: Advisory board membership, Grant investigator, Consultant, Speaker, Accelerate Diagnostics: Advisory board membership, Grant investigator, Consultant, Speaker, Bionerieux: Advisory board membership, Grant investigator, Consultant, Speaker, Allergan: Advisory board membership, Grant investigator, Consultant, Speaker, Merck: Advisory board membership, Grant investigator, Consultant, Speaker.