the funding and use of resources for evidence-based device-associated infection prevention.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s28–s29
doi:10.1017/ash.2024.134

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Public Health
Investigation of Healthcare-Associated Infection Risks from Ice: Summary of CDC Consultations 2016-2023
Steven Langerman, Centers for Disease Control and Prevention; Amara Fazal, Centers for Disease Control and Prevention; Matthew Arduino, Centers for Disease Control and Prevention, NCEZID, Division of Healthcare Quality Promotion; Kiran Perkins, Centers for Disease Control and Prevention and Christine Yount, Centers for Disease Control and Prevention, Division of Healthcare Quality Promotion

Background: Nonsterile ice is frequently used in healthcare settings for a wide array of patient care activities and clinical procedures. However, this ice can harbor pathogenic organisms which can threaten patient safety and cause outbreaks. We sought to characterize recent Centers for Disease Control and Prevention (CDC) consultations involving ice leading to healthcare-associated infections (HAIs). **Methods:** We reviewed internal CDC records from the Division of Healthcare Quality Promotion (DHQP) to identify investigations of outbreaks and potential outbreaks involving the use of ice in healthcare facilities. We searched records from January 1, 2016, through November 30, 2023, for keywords related to ice. We excluded consultations in which ice was not thought to be a potential transmission pathway as well as those in which only sterile ice products (e.g., saline slush) were investigated. **Results:** We identified 45 consultations for ice-related investigations, involving a total of 533 patients. Nontuberculous mycobacteria were the most frequently implicated organisms, appearing in 40% (n=18) of investigations. Eighty-four percent (n=38) of investigations occurred in acute care hospitals. The most frequently implicated hospital settings were intensive care units (13%, n=6), operating rooms (13%, n=6), and bronchoscopy suites (13%, n=6). We identified a variety of plausible exposure pathways, including direct ingestion of ice by patients, use of ice during the bronchoscopy procedure, use of nonsterile ice in heater-cooler devices during cardiothoracic surgery, and the use of ice to chill saline for respiratory care. Environmental sampling directly of ice machines was performed in 62% of investigations (n=28) and nonsterile ice from these machines was sampled in 9% of investigations (n=4). Among those investigations in which ice machines were sampled, the organism implicated in the outbreak was isolated in 54% of investigations (n=15). Among those investigations in which ice itself was sampled, the organism implicated in the outbreak was isolated in 75% of investigations (n=3). These organisms included Mycobacterium mucogenicum, Burkholderia multivorans, and Acanthamoeba spp. **Conclusions:** The use of nonsterile ice during clinical care is a potential source of pathogens that cause patient infections and HAI outbreaks. Healthcare personnel should be aware of the risk posed by nonsterile ice and consider avoiding its use, especially when caring for patients who are critically ill or immunocompromised. Healthcare facilities should ensure regular cleaning and disinfection of ice machines to decrease their microbial burden. When HAI outbreaks involving water-associated organisms are identified, nonsterile ice should be considered as a potential mode of transmission.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s29
doi:10.1017/ash.2024.135

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Quality Improvement
Bad Habits that Stick: An Investigation into Adhesive Medical Tape Use Practices and Beliefs
Julia Fischer, Baystate Medical Center and Sarah Haessler, Baystate Health

Background: Medical tape is one of the most ubiquitous resources in the hospital. Although tape is advertised by manufacturers as a single patient-use item, half-used rolls are a common sight in hospitals. Tape is often manipulated by un-sanitized and ungloved hands and comes in close contact with patient skin. Medical tape has the potential to be a source of hospital-acquired infection as it has been documented to be colonized with pathogens ranging from MRSA to Rhizopus. Despite infection risk, currently the only clinical guidelines of tape use are outlined in the Centers for Medicare & Medicaid Services guidance for Hemodialysis patients issued in 2008 that requires "tape should be dedicated to a single patient and discarded after use" as hemodialysis patients are at higher risk of infection. However, there is a lack of standards in the practice of tape use across hospital systems. **Methods:** To understand the current practices and beliefs of tape use at our institution, we developed a standardized survey to query individuals from various roles (RN, Physician, Patient Care Technicians, respiratory therapists, phlebotomists) across all patient care areas at a 746-bed academic, tertiary care center. **Results:** 52 units were surveyed, including 225 employees. Qualitative analysis revealed a wide variety of uses for medical tape for patient care, with venipuncture, securing IVs, and wound dressings being the most common. Only 1.4% of individuals reported single use of tape rolls. 54% of individuals reported tape use behaviors that carry an elevated risk for inoculation of pathogens. 70% of individuals reported that tape was discarded after the patient was discharged from their respective area. These practices did not change across procedure-heavy areas such as the Emergency Department or the Operating Rooms, in fact only 22% of individuals surveyed reported single use of tape in these areas. Beliefs about tape use varied: 95% of individuals agreed that a roll of tape could be used multiple times on a single patient, and 52% of individuals agreed that a roll of tape could be used on multiple patients. **Conclusions:** Tape use practices varied across hospital units, indicating the need for standardized policies for tape use and storage. Beliefs about tape not being a single-use item were consistent across the hospital and suggest that education and culture change efforts are needed to decrease the risk for hospital-acquired infections from improper medical tape use.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s29
doi:10.1017/ash.2024.136

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Quality Improvement
Can Artificial Intelligence Support Infection Prevention and Control Consultations?
Natalie Ross, University of Iowa Hospitals & Clinics; Karen Brust, University of Iowa Hospitals & Clinics; Takaaki Kobayashi, University of Iowa Hospitals & Clinics; Oluchi Abosi, University of Iowa Hospitals & Clinics; Jorge Salinas, Stanford University and Alexandra Trannel, University of Iowa Hospitals & Clinics

Background: Artificial intelligence (AI) tools have demonstrated success in US medical licensing examinations; however, their utility in infection prevention and control (IPC) remains unknown. **Methods:** The program

Table 1: Rubric for accuracy and completeness assessment

Accuracy		
1	completely incorrect	**Not acceptable**
2	more incorrect than correct	
3	approximately equal correct and incorrect	**Acceptable**
4	correct than incorrect	
5	completely correct	
Completeness		
1	addresses no aspect of the question, and the answer is not within the topic queried	**Not Acceptable**
2	addresses no aspects of the question, but the answer is within the topic queried	
3	addresses some aspects of the question, but significant parts are missing or incomplete	
4	addresses most aspects of the question but missing small details	**Acceptable**
5	addresses all aspects of the question without additional information	
6	addresses all aspects of the question and provides additional information beyond what was expected	

Table 2: Acceptance rate for accuracy and completeness using median score by 3 reviewers

ACCEPTABLE ACCURACY = 3 or ABOVE					
		SOURCE 1	**SOURCE 2**	**SOURCE 3**	**SOURCE 4**
Duration of isolation for various pathogens (N=16)	**A**	87.5	93.8	75	87.5
HCP exposures (N= 9)	**B**	88.9	100	100	100
Patient exposures (N=4)	**C**	50	100	100	100
Handling of room after patient was cared for (N=2)	**D**	100	100	100	100
ACCEPTABLE COMPLETENESS = 4 or ABOVE					
		SOURCE 1	**SOURCE 2**	**SOURCE 3**	**SOURCE 4**
Duration of isolation for various pathogens	**A**	43.75	56.25	75	75
HCP exposures	**B**	88.9	55.55	77.77	100
Patient exposures	**C**	50	100	100	100
Handling of room after patient was cared for	**D**	50	100	100	100

of hospital epidemiology handles consultation calls and records each question and answer. Using 2022 data, we selected 31 frequently asked questions. We utilized four AI tools, including Chat GPT-3.5 and 4.0, Bing AI, and OpenEvidence, to generate answers. We predefined scales (Table 1) to capture responses by three reviewers, including two hospital epidemiologists and one infection preventionist. The mean score of ≥ 3 and ≥ 4 was considered acceptable in accuracy and completeness, respectively. We reported the percentage of responses with acceptable accuracy and completeness out of assessed questions for each category. **Results:** Among 31 questions, 16 were associated with isolation duration, 9 with healthcare personnel (HCP) exposure, 4 with cleaning contaminated rooms, and 2 with patient exposure. Regarding accuracy, most AI tools performed worse in questions about isolation duration, ranging between 75% and 93.8%. All AI tools, except OpenEvidence, had a 100% accuracy rate for HCP and patient exposure. All AI tools had a 100% accuracy rate for contaminated room handling. The highest overall acceptable accuracy rate was observed in Chat GPT-3.5. Regarding completeness, most AI tools performed worse in questions about isolation duration, ranging between 44% and 75%. All AI tools, except OpenEvidence, had a 100% completeness rate for contaminated rooms and patient exposure. The highest overall acceptable completeness rate was observed in Bing AI (Table 2). **Conclusions:** All AI tools provided reasonable answers to commonly asked IPC-related questions, although, there were variations among different tools used. AI could be used to supplement the infection control program, especially if resources are limited.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s29–s30
doi:10.1017/ash.2024.137

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Quality Improvement
Quantity versus Quality: Chlorhexidine Bathing Adequacy Assessments in 3 High-Risk Units
Michelle Doll, Virginia Commonwealth University; Barry Rittmann, Virginia Commonwealth University; Patrick Ching, Virginia Commonwealth University; Kaila Cooper, Nursing VCU Health; Yvette Major, VCUHS and Gonzalo Bearman, Virginia Commonwealth University, Editor in Chief ASHE

Background: Chlorhexidine gluconate bathing (CHGB) prevents healthcare associated infections (HAIs). CHGB quality is rarely assessed; prior studies identified that concentrations of CHG can be suboptimal, particularly at the neck, and if rinsed after application. In the setting of increased HAI rates on 3 high-risk units, we evaluated CHG skin concentrations, comparing results to bathing documentation and patient reports as part of a quality improvement initiative. **Methods:** All patients admitted to 3 high-risk units were swabbed for CHG concentration testing at the neck, bilateral upper arms, and groin. Swabs were processed using a semi-quantitative colorimetric CHG assay. A threshold of 0.001875% CHG was used to determine adequacy based on prior studies. Adequacy was assessed by body site, timing of bath, and patient-reported skin care activities using Chi-square tests in SAS 9.4. Per hospital policy, all admitted patients are bathed daily with 2% CHG pre-packed wipes. Patients without a documented CHGB for the duration of the admission were excluded. **Results:** CHG testing was completed on 63 patients: 23 on medical ICU, 18 surgical ICU, 22 oncology ward, yielding 249 samples. Only ward patients could report the time of last CHGB, which agreed with nursing documentation for 12/21(57%) Adequacy by sample was no different across units: 59/88(67%) Oncology, 68/90(76%) MICU, 56/71(79%) SICU, p=0.2091. Site adequacy was different by site: neck 36/63(57%), left arm 49/62(79%), right arm 50/62(81%), groin 48/62(77%), p=0.0083. Samples taken from the 11 patients with > = 24 hours since last CHGB were more likely to be below threshold concentration: 19/47(40%) versus 47/202(23%) not adequate in the recent treatment grouping. Three patients reported showering soon after the CHGB and 8 patients used moisturizing lotion. The percent of samples below threshold for the showering patients (6/12, 50%) and lotion-users (11/32, 34%) were not significantly different from the non-showering or non-lotion using patient samples (p=0.0588 and 0.2800 respectively). **Conclusion:** In a facility with longstanding daily CHGB policies in place, 66/249 samples from 63 patients lacked adequate concentrations of CHG for optimal HAI prevention. Even in patients with recent CHGB, 23% of sites tested revealed inadequate levels of CHG, while 60% of those overdue for CHGB kept adequate concentrations. Reliable implementation strategies are required for CHGB so as to ensure maximal infection prevention impact.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s30
doi:10.1017/ash.2024.138

Presentation Type:
Poster Presentation - Oral Presentation
Subject Category: Research methodology and statistics
A Comparison of Variable Input Strategies used for Risk-adjustment Models of Antimicrobial Use
Rebekah Moehring, Duke University Medical Center; Michael Yarrington, Duke University Medical Center; Elizabeth Dodds Ashley, Duke University; Rachel Addison, Duke University; Whitney Buckel, Intermountain Healthcare; Sara Cosgrove, Johns Hopkins University School of Medicine; Eili Klein, Johns Hopkins University School of Medicine; Carlos Santos, Rush University Medical Center; Emily Spivak, University of Utah School of Medicine and Salt Lake City VA; William Trick, Cook County Health; David J Weber, University of North Carolina at Chapel Hill; Congwen Zhao, Duke University; Deverick Anderson, Duke Center for Antimicrobial