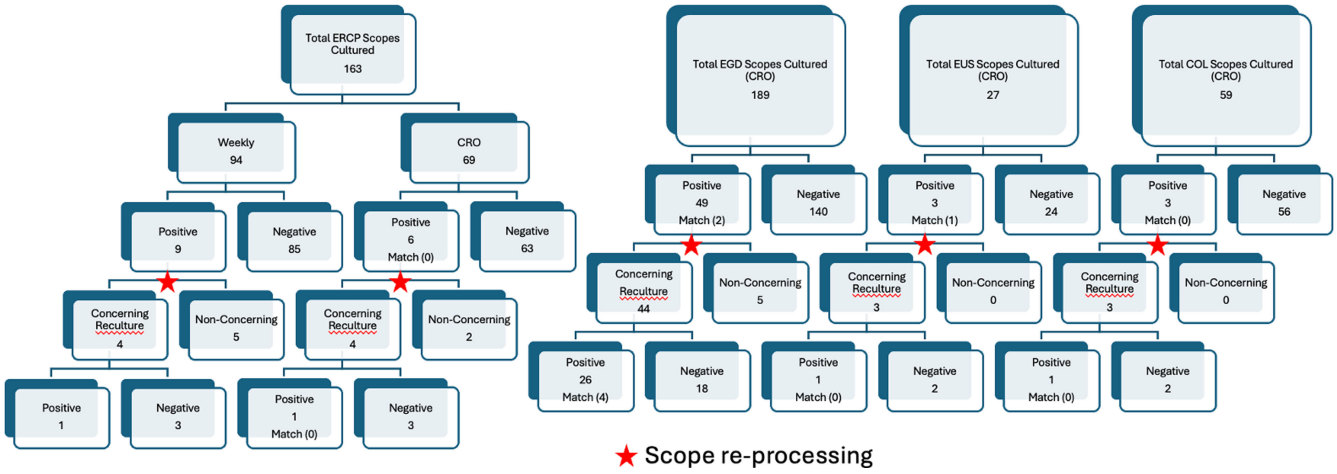

standardization of surveillance protocols are essential to mitigate transmission risks associated with gastrointestinal endoscopy and improve patient safety on a broader scale.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s95–s96
doi:10.1017/ash.2025.327

Presentation Type:
Poster Presentation
Subject Category: Disinfection/Sterilization
Use of an AI Platform for Monitoring Terminal Room Cleans
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Background: The terminal cleaning procedure for disinfection of a hospital room is an essential, yet difficult to monitor, step in infection prevention. Current methods for auditing require intensive human resources investment, depend on self-report, or employ spot checks using ATPase or glo gel audits. Inconsistent feedback and self-report are notoriously poor ways to drive behavior change or evaluate quality. **Methods:** We assessed a new AI platform developed by Myna Technologies that monitors cleaning and disinfection. The system incorporates thermal and optical cameras to detect percentage of total surface area cleaned including adequate contact time for two high touch surfaces: bedside table and mattress, in our Environmental Services (EVS) training suite. A researcher, trained by our hospital's EVS team, performed 20 cleaning passes each for the mattress and bedside table. Each pass covered 25%, 50% 75% or 100% of total surface area; we compared the planned cleaning percentage to the device-observed results for both cameras. A Fisher's exact test analysis was performed for fully clean (100% surface) and not clean **Results:** See Tables 1 and 2 for cleaning plan and device results. The mattress was 100% cleaned 6 times of 20 passes. The thermal camera correctly identified complete clean 100% of the time **Discussion:** Initial assessment of this novel AI technology to monitor disinfection in real time shows promise for detecting adequate cleaning. A formal validation trial comparing results of the automated system with direct observation, glo-gel marking and ATPase for all high touch surfaces, utilizing multiple cleaners is underway.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s96
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Table 1: Mattress

% Observed	% Optical	% Thermal
25	19	31
50	50	50
75	61	74
100	71	100
75	71	75
50	41	41
25	33	31
100	82	100
100	80	100
75	62	60
25	20	25
75	42	43
75	63	69
100	91	100
75	62	69
75	39	43
25	18	19
100	91	100
100	78	100
75	73	74

Table 2: Bedside Table

% Observed	% Optical	% Thermal
25	46	43
50	58	59
75	88	86
100	96	100
75	87	83
50	50	53
25	23	39
100	96	100
100	92	100
75	85	80
25	23	22
75	76	73
75	88	89
100	97	100
75	83	81
75	62	76
25	37	40
100	99	100
100	84	83
75	84	80

Presentation Type:
Poster Presentation
Subject Category: Emerging Pathogens
Candida auris Screening, Positivity Trends, and Patient Characteristics at the University of Kentucky between 2021 and 2024
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Background: Candida auris is an emerging multidrug-resistant fungus recognized as a global health threat. Despite increasing rates of

colonization, no standardized protocol exists in the United States for C. auris screening upon admission. In February 2023, the University of Kentucky Healthcare (UKHC) implemented a targeted C. auris screening system for select high-risk patients. **Methods:** This retrospective observational study was conducted at UKHC, a 1,086-bed academic medical center, using data from patients aged ≥18 years screened for C. auris between July 1, 2021, and June 30, 2024. Prior to February 2023, C. auris screening occurred only during outbreak investigations. Post-implementation, screening was expanded to include ICU admissions, patients from external facilities with wounds or tracheostomies, and patients with a history of carbapenem-resistant organism infection. Axillary and groin swabs were tested via polymerase chain reaction (PCR). Cases were classified as community-onset (CO) **Results:** Of 13,642 C. auris tests performed, 70 positive cases were identified: 13 cases (6 CO, 7 HO) pre-implementation and 57 cases (31 CO, 26 HO) post-implementation (Figure 1). The mean age was 60.24 years, and males comprised 57.75%. The monthly positivity rate post-implementation ranged from 0% to 2.18% (with a mean of 0.96%). Among the 70 cases, 10 (14.29%) were classified as clinical infections, and 60 (85.71%) as colonization. The primary indications for C. auris screening included ICU admission (42.86%), point prevalence surveys (17.14%), and admission from external facilities with wounds (5.72%). No significant differences were observed between clinical and colonized cases by age, gender, race, or most other comorbidities. However, clinical cases were more likely to have diabetes (90% vs. 48.33%, p=0.0143) and medical device usage, including tracheostomy (80% vs. 45.00%, p=0.0404), gastrostomy tubes (90% vs. 53.33%, p=0.0293), central lines (60% vs. 41.67%, p=0.2799), and urinary catheters (60% vs. 46.67%, p=0.4348). Among ten clinical cases, seven patients received antifungal treatment. Three patients did not receive any treatment since C. auris was not considered clinically significant. 30-day mortality was higher among clinical cases compared to colonized cases; however, the difference was not statistically significant (30% vs. 25%, p=0.7377). **Conclusions:** The implementation of a targeted C. auris screening program at UKHC has provided critical insights into epidemiologic trends, patient demographics, and risk factors. Understanding these factors is essential for optimizing infection prevention strategies, refining screening protocols, and informing public health efforts to mitigate the spread of C. auris in healthcare settings.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s96–s97
doi:10.1017/ash.2025.329

Presentation Type:
Poster Presentation
Subject Category: Emerging Pathogens

Candida auris Cluster and Mitigation in Burn Center

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Background: Candida auris (CA) is an urgent threat per CDC with rapidly increasing cases across the US. Patient rooms quickly recontaminate after daily cleaning due to skin shedding, CA persistence on environmental surfaces and resistance to surface disinfectants. Burn services experienced a sharp increase in 2023-2024 CA cases concurrently with statewide reported increases. Dry hydrogen peroxide (cDHP) is an environmental air technology augmenting daily room disinfection with activity against CA. **Investigation:** The 113 bed hospital treats complex burns and wounds as a Level 2 trauma center serving a large geographic region. Room design is single patient rooms with one semi-private ward. A total of 236 patient encounters were coded by quarter based on CA identification from clinical or surveillance cultures. cDHP was deployed in Burn ICU as of 3/2023 and nonICU as of 6/2024, with prioritization for cDHP in patients with an expected LOS of > 14 days. Surface disinfectants with CA label claim were implemented upon CA case identification. Patient skin surveillance cultures were taken upon admission burn/wound intake process and tested by the state department of health (DOH) starting in 3/2023. ATPase testing occurred as an indirect measure of cleaning and disinfection. **Findings:** Figure 1 displays the occurrence of CA burn service patients. The majority of initial positive culture sources were wound/tissue (43%) and skin surveillance (35%). Figure 2 displays when CA specific prevention actions were initiated and 63% CA cases were identified after admission. Six CA patients were in semi-private rooms. However, transmission was absent based on surveillance cultures. No statistical difference in ATPase pass/fails was found between cDHP and control room surfaces after daily cleans. In CA cases detected post discharge, all tested negative upon admission, were in single patient rooms and were more frequent within months of high CA case burdens. **Conclusions:** Surveillance testing is important for assessing burden of CA colonization, which fluctuated over this 2 year period. Despite increase in CA burden on admit, new hospital acquisition remained relatively constant Infection prevention