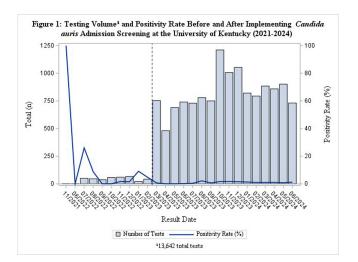
colonization, no standardized protocol exists in the United States for C. auris screening upon admission. In February 2023, the University of Kentucky Healthcare (UKHC) implemented a targeted C. auris screening system for select high-risk patients. Methods: This retrospective observational study was 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.

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## Presentation Type:

Poster Presentation

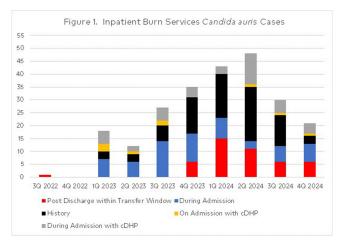
Subject Category: Emerging Pathogens

## 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



25

20

15

10

Start of Prevention Actions

1Q 2024

On Admit ——After Admit

Figure 2. Distribution of Candida Auris Burn Unit Cases and

resources shifted to observations of compliant practices. Next steps are to increase cDHP use as supplemental room disinfection, regardless of anticipated length of stay and investigate potential risks associated with silent CA acquisition identified post discharge.

2Q 2023

3Q 2023

None

4Q 2023

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## Presentation Type:

Poster Presentation

Subject Category: Emerging Pathogens

1Q 2023

Antimicrobial Susceptibility Variation Among Emerging WHO Listed Candida Pathogens

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Background: Invasive fungal diseases (IFDs) are severe infections caused by fungi that can spread throughout the body, particularly in individuals with weakened immune systems. These infections are increasingly challenging, especially those that are resistant to antifungal treatments. IFDs represent an emerging global threat, highlighting the urgent need for increased attention and research. In 2022, the World Health Organization (WHO) released the WHO Fungal Priority Pathogen List (WHO-FPPL), ranking 19 fungal pathogens as critical, high, or medium based on criteria such as incidence, treatment options, and mortality rates. While Candida albicans and Candida auris are well-known and included on the list, it also features four other species of concern (C. glabrata, C. tropicalis, C. parapsilosis, C. krusei) that are not typically listed on disinfectant master labels. This study aims to evaluate the antimicrobial susceptibility differences between Candida species from commonly used healthcare disinfectant products. Method: Antimicrobial efficacy testing was conducted using common healthcare disinfectants against the WHO-FPPL listed Candida species, following standard operating procedures typically required for disinfectant product registration by the U.S.

EPA. Each disinfectant formulation represented a common active ingredient, or active ingredient blend, used in healthcare settings for surface disinfection, ranging from ready-to-use sprays to wipes. Products were tested at approximately 75% of the manufacturer-defined contact time listed on the EPA master label to stress the chemistry and elucidate antimicrobial differences between Candida Results: susceptibility species. Antimicrobial efficacy varied across Candida species for the tested chemistries. Of the six Candida species tested, C. parapsilosis was the most difficult to eradicate. The remaining Candida species exhibited less variability with C.auris and C. krusei demonstrating slightly lower susceptibility across all of the disinfectant types than C.albicans, C. glabrata, and C. tropicalis. Conclusion: This study underscores the variability in efficacy between these emerging fungal pathogens and common healthcare disinfectants. While C. auris remains a primary concern in healthcare settings, these findings highlight the continued need for ongoing fungal surveillance, research of emerging fungi, and the potential impact on environmental hygiene practices.

3Q 2024

4Q 2024

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s98 doi:10.1017/ash.2025.331

2Q 2024

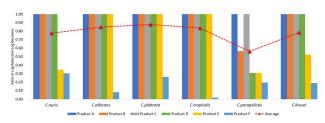


Figure 1: Antimicrobial susceptibility of Candida species to various common healthcare disinfectants. Columns represent a Log Reduction ratio from comparison of treated test coupons to untreated control coupons. A value of 1.00 represents total reduction of the test organism; a value of 0.00 represents no reduction. Each column represents an average reduction from three test carriers per chemistry at approximately 75% of the disinfectant labeled contact time. The dotted line represents an overall reduction servage between all test chemistries per organism.