

and 2023. **Conclusions:** Antifungal resistance in non-albicans *Candida* species represents an emerging public health threat, however, within the Southeast region, ARLN data has shown a decreasing trend of azole resistance. This may be due in part to changes in reporting requirements and submission criteria from within the region. Nevertheless, *C. tropicalis* showed high resistance to azoles within the Southeast region. These *Candida* species should be monitored to inform clinical decision making and identify resistance patterns in other US regions due to their increase in resistance worldwide.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s89–s90

doi:10.1017/ash.2024.228

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Emerging Pathogens

Candida auris in the Healthcare Environment: Prevalence, Anti-Fungal Resistance, and Survival on Porous & Non-Porous Surfaces

Brandon Smith, Environmental Safety Technologies, Inc. and Richard Miller, Environmental Safety Technologies, Inc.

Candida auris is an emerging multidrug-resistant pathogenic yeast capable of causing severe illness in the healthcare environment. It spreads easily amongst patient populations, is often resistant to anti-fungal treatments and can survive on surfaces for prolonged periods. In the current study, 85 sites within hospital settings were screened for surface-contaminated *Candida* species and *C. auris*. Surface swab samples were transferred to chromogenic agar media designed to isolate and identify *Candida* species and were incubated at 35°C for 48 hr. Samples were confirmed using molecular techniques designed to specifically target *C. auris* from other *Candida* species. Data was compiled to show prevalence of six key *Candida* species (*C. albicans*, *C. auris*, *C. glabrata*, *C. krusei* and *C. tropicalis*). Survivability on surfaces was performed using CDC B11903 *C. auris* strain. Plastic, metal and fabric surfaces used were purchased from a medical supply store. Once inoculated with 500 CFU/ml in sterile distilled water, the surfaces were kept in a Class II hood with minimal airflow and ambient conditions (21°C, 60% RH) and sampled daily. Results showed 25 of the 85 (29.4%) tested sites were positive for *Candida* species, with 3 of those sites positive for *C. auris*. Anti-fungal resistance among the three isolates (tested using concentration gradient test strips) showed notable resistance to fluconazole, but not to amphotericin B nor micafungin. *C. auris* survivability was dependent upon surface type, with the *C. auris* test strain surviving for 39 days on three different types of hospital curtains, and ≥ 10 days on a variety of non-porous plastic or metal surfaces. With demonstrated survivability of *C. auris* for long periods of time on hospital surfaces, it becomes critical for healthcare facilities to consider *C. auris* when developing infection prevention programs.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s90

doi:10.1017/ash.2024.229

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Emerging Pathogens

Hospital-Associated Transmission of *Candida auris* from Adult to Pediatric Patient

Erin Barker, The Johns Hopkins Hospital; Vivian Donnelly, The Johns Hopkins Hospital; Susan Fallon, The Johns Hopkins Hospital; Sara Pau, The Johns Hopkins Hospital; Melanie Curless, The Johns Hopkins Hospital; Erica Prochaska, Johns Hopkins University; Shannon Murphy, Johns Hopkins University; Patricia Simner, Johns Hopkins University; Sean Zhang, Johns Hopkins School of Medicine; Aaron Milstone, Johns Hopkins University and Anna Sick-Samuels, Johns Hopkins School of Medicine

Background: *Candida auris*, an emerging multidrug-resistant fungus, is often difficult to control in hospital outbreaks. We report the hospital

investigation and findings of a transmission of *C. auris* from patients hospitalized in an adult unit to a pediatric unit, the first in Maryland. **Methods:** Between June and September 2023, *C. auris* was recovered from two patients admitted to an adult Neuroscience Intensive Care Unit (ICU) and a patient admitted to a pediatric ICU. Infection control initiated an investigation involving staff interviews, observations and chart reviews. Cases were defined as any patient with clinical or surveillance cultures growing *C. auris*. Point prevalence surveillance was conducted by collecting nares and composite axilla/groin swabs from patients on the affected units. Environmental cultures collected using moistened E-Swabs (Copan, Murrieta, CA) from shared supplies were plated on CHROMagar *Candida* (BD, Sparks, MD). *C. auris* isolates from patients hospitalized at the facility between February 2022 and October 2023 were analyzed by WGS for relatedness. WGS was performed using Illumina NextSeq 300 bp paired-end sequencing (Illumina, San Diego, CA). Single nucleotide polymorphism (SNP) analysis was performed by comparing raw reads to the reference *C. auris* B8441 genome for subsequent clustering analysis (Ares Genetics, Vienna, Austria). **Results:** WGS demonstrated isolates from two adults and one pediatric patient were less than three SNPs different, suggesting a shared isolate. One additional pediatric case was identified from surveillance cultures collected from 27 patients. Investigation into possible transmission routes revealed healthcare personnel serving both units, specifically clinical teams and continuous electroencephalography (cEEG) technologists. Additionally, cEEG equipment was used on both adult and pediatric patients and twelve equipment surface swabs and three samples each of measuring tape and gel were collected. *C. auris* was not isolated, however sensitivity of environmental sampling is unclear and suspicion for possible fomite/environmental transmission persisted. Other possible transmission routes included gaps in hand hygiene, isolation, disinfection of shared equipment, and reuse of single-use items. Interventions included improving and monitoring infection prevention practices, educating multi-disciplinary personnel and heightened environmental cleaning. **Conclusion:** This case highlights the feasibility of transmission of *C. auris* between patients admitted to a geographically distant unit. Our investigation revealed multiple possible routes of transmission including direct contact (from healthcare personnel or equipment) or indirect environmental sources. Prevention of hospital-associated *C. auris* transmission likely necessitates meticulous adherence to hand hygiene, contact precautions, and careful cleaning and disinfection of patient environments and equipment used by all disciplines.

Disclosure: Patricia Simner: Research Contracts: BD Diagnostics, OpGen Inc., Qiagen Sciences Inc, T2 Diagnostics, Accelerate Diagnostics; Research Collaborators: Ares Genetics, CosmosID, IDbyDNA, Illumina; Consulting: OpGen Inc., BD Diagnostics, Shionogi Inc., GeneCapture, Qiagen Sciences Inc, Entasis, Day Zero Diagnostics, Next Gen Diagnostics

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s90

doi:10.1017/ash.2024.230

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: Emerging Pathogens

Epidemiology of Extrapulmonary Nontuberculous Mycobacterial Disease – 4 Emerging Infection Program Sites, 2021

Rebecca Byram, Centers for Disease Control and Prevention, Chenega Enterprise Systems and Solutions; Kelly Jackson, Centers for Disease Control and Prevention; Christopher Czaja, Colorado Department of Public Health and Environment; Helen Johnston, Colorado Department of Public Health and Environment; Devra Barter, Minnesota Department of Health; Ruth Lynfield, Minnesota Department of Health; Nathan Centurion, Minnesota Department of Health; Laura Tourdot, Minnesota Department of Health; Ghinwa Dumyati, University of Rochester Medical Center; Christopher Myers, NY Emerging Infections Program; Rebecca Pierce, Oregon Emerging Infections Program; Nadege Charles Toney, Oregon Emerging Infections Program; Adel Mansour, Oregon Emerging Infections Program; Shelley Magill, Centers for Disease Control and Prevention and Isaac See, Centers for Disease Control and Prevention