

Since 2019, we identified six patients with *C. auris* positive cultures, including five clinical cases and one colonization case. Five patients were international and one was local with no history of international travel or stay in a care facility. Interestingly, all six were known to be colonized with extended-spectrum beta-lactamase (ESBL) *E. coli*. **Conclusion:** We have a very low prevalence of *C. auris* among CDC-defined high-risk patients. A review of historic *C. auris* cases indicated an association with colonization by other multidrug-resistant organisms, specifically ESBL *E. coli*, which will inform future screening protocols at our institution.

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First Detected Transmission of *C. auris* within a Minnesota Healthcare Facility Following Exposure in the Emergency Department

Laura Tourdot, Minnesota Department of Health; Krista Knowles, Minnesota Department of Health; Jennifer Dale, Minnesota Department of Health; Stephanie Homuth, Minnesota Department of Health Public Health; Ginette Dobbins, Minnesota Department of Health; Tami Dahlquist, Minnesota Department of Health; Kristy Connors, Minnesota Department of Health; Jacob Garfin, Minnesota Department of Health; Jill Fischer, Minnesota Department of Health Public Health; Anastasia Gross, Minnesota Department of Health; Paula Snippes Vagnone, MN Dept. of Health, Public Health Lab; Ruth Lynfield, Minnesota Department of Health and Christine Lees, Minnesota Department of Health

Background: *Candida auris* reporting and submission of confirmed or possible isolates has been mandatory in Minnesota since August 2019. On August 9, 2023, the Minnesota Department of Health (MDH) was notified of a *C. auris* isolate in hip tissue from a patient in acute care hospital A (ACH-A). Only 9 cases of *C. auris* were detected prior to August 2023, in Minnesota, and all from patients with a history of international healthcare or healthcare in endemic *C. auris* locations of the United States. **Methods:** The MDH Public Health Laboratory (MDH-PHL) confirmed identification of *C. auris* from the ACH-A isolate by MALDI-TOF. MDH partnered with ACH-A to review medical records, assess infection prevention and control (IPC) practices, conduct contact tracing, and identify patients for colonization screening. Screening was performed on all patients that overlapped with the index case (case A) and were admitted to a facility in the same healthcare system as ACH-A. Facilities accepting discharged patients who overlapped with case A were contacted for colonization screening. Overlapping patients, no longer admitted to a healthcare facility, were sent a notification letter, and offered outpatient screening. Composite axilla/groin swabs were screened for *C. auris* using real-time PCR at MDH-PHL, who also performed whole genome sequencing (WGS) and single nucleotide polymorphism (SNP) analysis. **Results:** Case A's medical record showed only Minnesota healthcare exposures, a surgical procedure in June 2023 and indicated the case overlapped with a previous case (case B) from July 2023, who had recent international healthcare. The two cases were hospitalized at ACH-B July 12-18, on different care floors without evident links to shared services. However, the cases were in adjacent rooms in ACH-B Emergency Department (ED) on July 3 for 5 hours, when *C. auris* status of case B was unknown. WGS indicated both isolates were within clade I (South Asian) and separated by 2 SNPs, suggesting relatedness. Extensive colonization screening occurred among 109 potentially exposed patients, including 18 patients from the ED. No additional *C. auris* was

detected. **Conclusions:** This case represents the first detected transmission of *C. auris* within a Minnesota healthcare facility. The role of *C. auris* transmission within the ED is not well understood. Medical record review in combination with WGS analysis suggests potential transmission within the ED. Clinicians should be aware of the risks for *C. auris* transmission in the ED and follow all IPC measures to prevent transmission of this emerging fungal pathogen.

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Risk Factors and Outcomes of *Candida auris* in Southeast Michigan

Ambreen Malik, Henry Ford Hospital; Anita Shallal, Henry Ford Hospital; George Alangaden, Henry Ford Health System and Wayne State Univ and Geehan Suleyman, Henry Ford Hospital

Background: *Candida auris* is an emerging multidrug resistant fungus that presents a serious global health threat and causes severe infections with a high mortality rate in hospitalized patients with significant underlying comorbidities. We describe the risk factors and clinical outcomes associated with *C. auris* in Southeast Michigan. **Methods:** This is a retrospective case series of culture-positive *C. auris* patients who had contact with our healthcare facility in Detroit from 2021 to 2023. We evaluated demographics, comorbidities, risk factors, and outcomes. A comparative analysis of colonized and infected patients was performed. **Results:** Forty-eight (81%) colonized and 11 (19%) infected patients were included (Table); 70% were male with median age of 66 years. All variables were comparable between the two groups except chronic kidney disease, which was significantly more prevalent among colonized patients (40% vs 0, p=0.011). All patients had prior exposure to acute care hospital (ACH), 37% to long-term acute care hospital, and 42% to skilled nursing facility within 1 year of diagnosis. Chronic wounds, prior broad-spectrum antibiotic use, and indwelling devices were prevalent in both groups; more than half required mechanical ventilation in the last month, and one third had tracheostomy at the time of *C. auris* detection. Almost 60% had a prior history of drug-resistant organisms, including multi-drug resistant gram negative (37%) and carbapenem-resistant (20%) organisms. Blood (82%) and wound (18%) were sources of invasive candidiasis. More than half (61%) of the testing was performed at ACH. Nine patients (82%) with invasive disease

| | Total, N=59 | Colonization, N=48 | Infection, N=11 | P-value |
|---|-------------|--------------------|-----------------|---------|
| Median age (interquartile range), years | 66 (48-72) | 66 (50.3-73) | 58 (35-69) | 0.95 |
| Male, n (%) | 41 (70) | 32 (67) | 9 (82) | 0.325 |
| Comorbidities, n (%) | | | | |
| Diabetes mellitus | 22 (37) | 17 (35) | 5 (45) | 0.535 |
| Chronic kidney disease | 19 (32) | 19 (40) | 0 | 0.011 |
| Chronic obstructive pulmonary disease | 10 (17) | 10 (21) | 0 | 0.097 |
| Coronary artery disease | 9 (15) | 7 (15) | 2 (18) | 0.765 |
| Cirrhosis/Liver disease | 5 (9) | 3 (6) | 2 (18) | 0.200 |
| Intravenous drug use | 2 (3) | 1 (2) | 1 (9) | 0.247 |
| Active solid malignancy | 6 (10) | 4 (8) | 2 (18) | 0.330 |
| Active hematological malignancy | 4 (7) | 3 (6) | 1 (9) | 0.735 |
| Organ transplant within 1 year | 2 (3) | 2 (4) | 0 | 0.491 |
| Immunocompromised | 10 (17) | 7 (15) | 3 (27) | 0.312 |
| Risk factors, n (%) | | | | |
| Healthcare exposure within 1 year | 59 (100) | 48 (100) | 11 (100) | - |
| Acute care hospital | 59 (100) | 48 (100) | 11 (100) | - |
| Long-term acute care hospital | 22 (37) | 18 (38) | 4 (36) | 0.944 |
| Skilled nursing facility | 25 (42) | 18 (38) | 7 (64) | 0.114 |
| Inpatient rehabilitation | 7 (12) | 5 (10) | 2 (18) | 0.473 |
| Intensive care unit within 90 days | 43 (73) | 34 (71) | 9 (82) | 0.460 |
| Candida colonization in the past year | 28 (47) | 22 (46) | 6 (55) | 0.655 |
| <i>C. auris</i> | 3 (5) | 1 (2) | 2 (18) | 0.028 |
| Drug-resistant organisms within 1 year | 35 (59) | 29 (60) | 6 (55) | 0.721 |
| Multi-drug resistant gram-negative organism | 22 (37) | 16 (33) | 6 (54) | 0.189 |
| Carbapenem-resistant organism | 12 (20) | 10 (21) | 2 (18) | 0.844 |
| Methicillin-resistant <i>S. aureus</i> | 15 (25) | 12 (25) | 3 (36) | 0.876 |
| Vancomycin-resistant <i>Enterococcus</i> | 9 (15) | 7 (15) | 2 (18) | 0.765 |
| Broad-spectrum antibiotics within 90 days | 56 (95) | 45 (94) | 11 (100) | 0.395 |