Effectiveness of Risk-Based *Candida auris* Surveillance Screening: A Single-Center Analysis

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BACKGROUND

Candida auris (*C. auris*) is an emerging yeast known for its resistance to many antimicrobial treatments and its potential to cause serious illness. It spreads rapidly between patients, especially in healthcare environments, and can lead to significant outbreaks. Individuals who carry *C. auris* can contaminate surfaces and equipment, facilitating transmission to others. Implementing routine screening for colonization is a critical measure to control its spread within healthcare facilities.

University Medical Center of Southern Nevada (UMCSN) began identifying clinical cases in November 2021. A Health Alert Bulletin from the Southern Nevada Health District followed in April 2022. By May of 2022, UMCSN's Infection Prevention/Control team launched staff education. In October 2024, Best Practice Advisories (BPA) were implemented to support screening efforts.

Key Challenges:

- Environmental persistence
- Healthcare-associated outbreaks
- Asymptomatic colonization

Image. Microscopic view of *Candida auris* Fungus. Copyright 2025 by Vecteezy

PURPOSE

A retrospective review of risk factors to analyze the impact of surveillance screening methodologies and to develop a baseline of identified patients being admitted at UMCSN with the highest risk of being colonized with *C. auris*.

METHODS

Study Design: We performed a retrospective analysis of *C. auris* surveillance data (October 2024-June 2025) from Epic database for risk factors of patients who met the established screening criteria.

- 1878 patients met screening criteria.
- 147 patients were identified with *C. auris* colonization.

Risk-Based Screening Categories:

- **Transfer:** Patients from LTACHs, SNFs, other healthcare facilities
- **Invasive Device(s):** Central Lines, Indwelling Urinary Catheters, Airways, Drains
- **Both:** Combined Transfer + Invasive Device(s)

RESULTS

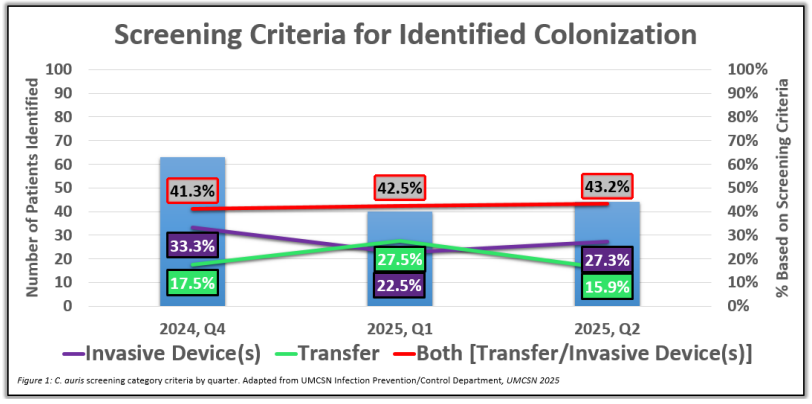

Figure 1: C. auris screening category criteria by quarter. Adapted from UMCSN Infection Prevention/Control Department, *UMCSN 2025*

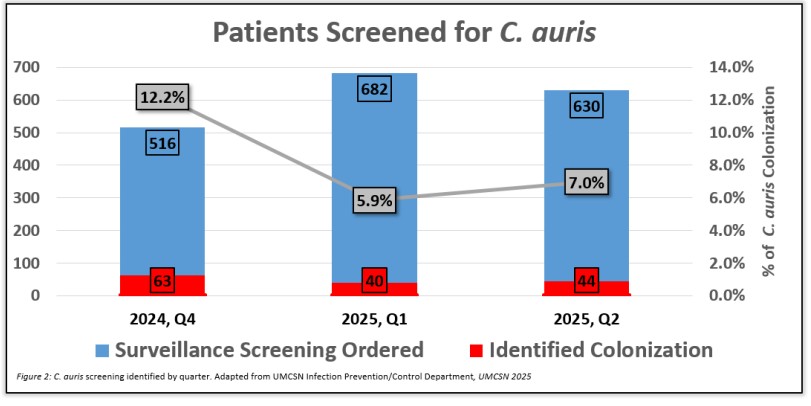

Figure 2: C. auris screening identified by quarter. Adapted from UMCSN Infection Prevention/Control Department, *UMCSN 2025*

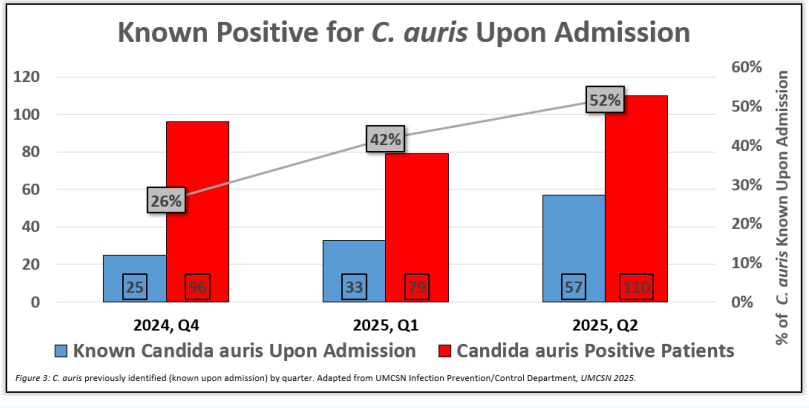

Figure 3: C. auris previously identified (known upon admission) by quarter. Adapted from UMCSN Infection Prevention/Control Department, *UMCSN 2025.*

CONCLUSIONS

Key Findings:

- Patients in the dual-risk screening categories consistently yield a higher identified colonization rate vs. single-factor screening methods.
- Percentage of patients previously identified with *C. auris* by colonization screening, clinical culture or report from transferring facility who present to UMC as a new admission continues to increase as expected, increasing the burden on the hospital.

Program Effectiveness:

- Risk-based surveillance screening is now standard practice and has been shown to improve early detection in high-risk populations.

LIMITATIONS

- Single-center retrospective design limits generalizability.
- Longitudinal screening data volume needed to guide meaningful interventions.
- Risk-based approach may miss low-risk asymptomatic carriers.
- Patients previously identified with *C. auris* do not require repeat screening.
- Short follow-up period limits assessment of long-term outcomes and impact of *C. auris*.

RECOMMENDATIONS

- **Resource Prioritization**
  Continue focused screening on patients with risk factors for highest detection yield.
- **Staff Education**
  Enhance training on risk factor and screening criteria recognition.
- **Continuous Monitoring**
  Continue the screening process and data analysis for future study and intervention.

REFERENCES

PATHWAY DESIGNATED