Aksaray University Journal of Medical Sciences
Aksaray Üniversitesi Tıp Bilimleri Dergisi

asujms 2026; 6(1) :30-33

Case Report

Candida auris: Current Challenges in Infection Control, Supported by the Literature through a Case Presentation

Candida auris: Güncel Enfeksiyon Kontrol Sorunları ve Literatür Eşliğinde Bir Olgu Sunumu

Sibel Altunışık Toplu [*1], **Emine Nalan Parmaksız** [*2], **Adem Köse** [*1], **Nazire Bulam** [*2]

[*1] Inönü University Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology/TÜRKİYE

[*2] Inönü University Faculty of Medicine, Turgut Özal Medical Center, Infection Control Committee/TÜRKİYE

Aim: Candida auris is an emerging multidrug-resistant yeast that poses a significant global health threat because of its ability to persist on environmental surfaces for extended periods. This case report evaluates infection-control measures applied in a patient with C. auris detected in a urine culture, in light of current national and international guidelines.

Case Presentation: A 62-year-old woman was hospitalized with urinary tract infection and was treated with intravenous meropenem for ten days. A follow-up urine culture grew C. auris. As there were no fever, leukocytosis, or clinical signs of urinary tract infection, the finding was considered colonization. The patient was immediately isolated in a single room and contact precautions were reinforced. Screening nasal and axillary swab cultures obtained from other patients cared for by the same nursing team were all negative for C. auris.

Conclusion: This case illustrates that broad-spectrum antimicrobial exposure and prolonged hospitalization are major risk factors for C. auris colonization. Timely implementation of the 2025 guideline of the Republic of Türkiye Ministry of Health, General Directorate of Public Health, and the updated 2025 Centers for Disease Control and Prevention (CDC) recommendations plays a critical role in preventing nosocomial spread.

Keywords: Candida auris; Infection control; Antifungal resistance

Amaç: Candida auris, çoklu antimikotik direnç ve çevrede uzun süre canlı kalabilme özelliği ile sağlık hizmetlerinde önemli bir küresel tehdit oluşturmaktadır. Bu olgu sunumunda, idrar kültüründe C. auris saptanan bir hastada uygulanan enfeksiyon kontrol önlemleri güncel ulusal ve uluslararası rehberler ışığında değerlendirildi.

Olgu Sunumu: Altmış iki yaşındaki kadın hasta, üriner sistem enfeksiyonu tanısıyla yatırıldı. On günlük intravenöz meropenem tedavisi sonrası kontrol idrar kültüründe C. auris üremesi saptandı. Ateş, lökositoz ve üriner sistem enfeksiyonu bulgusu olmaması nedeniyle kolonizasyon kabul edildi. Hasta tek kişilik odaya alınarak temas önlemleri güçlendirildi. Aynı hemşire ekibinin bakım verdiği diğer hastalardan nazal ve aksiller sürüntü örnekleri alındı ve C. auris saptanmadı.

Sonuç: Bu olgu, geniş spektrumlu antimikrobiyal kullanımı ve uzun süreli hastane yatışının C. auris kolonizasyonu için önemli risk faktörleri olduğunu göstermektedir. Türkiye Cumhuriyeti Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü'nün 2025 tarihli "Sağlık Hizmetlerinde Candida auris Enfeksiyonlarının Önlenmesi ve Kontrolü Rehberi" ile CDC'nin 2025 güncellenmiş kılavuzuna zamanında uyum, hastane içi yayılımın önlenmesinde kritik rol oynamaktadır.

Anahtar Kelimeler: Candida auris; Enfeksiyon kontrolü; Antifungal direnç

Corresponding Author: Sibel Altunışık Toplu
İnönü Unıversity Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology/TÜRKİYE
E-mail: saltuntoplu@gmail.com

Received: 22.09.2025
Accepted: 18.12.2025

Cite: Toplu SA, Parmaksız EN, Kose A, Bulam N. Candida auris: Current Challenges in Infection Control, Supported by the Literature through a Case Presentation. asujms 2026; 6(1):30-33

INTRODUCTION

First described in 2009, Candida auris has rapidly emerged as a global public health concern (1,3,4). Its ability to resist multiple antifungal agents, survive on surfaces for weeks, and be misidentified by routine laboratory methods makes it particularly challenging (5–7). The World Health Organization (WHO) and the United State Centers for Disease Control and Prevention (CDC) classify C. auris as a critical priority pathogen (1). In Türkiye, sporadic cases and clusters have been reported since 2020, and the Republic of Türkiye Ministry of Health, General Directorate of Public Health published its "Candida auris in Healthcare Settings" guideline in 2025 (2, 9).

CASE PRESENTATION

A 62-year-old woman was admitted to the Department of Infectious Diseases, İnönü University Faculty of Medicine, and hospitalized in the Turgut Özal Medical Center with a urinary tract infection. Intravenous meropenem was administered for 10 days. She had previously received a 7-day course of fluconazole for Candida kefyr. On hospital day 10, urine (control) culture grew Candida auris. Clinical assessment revealed no fever, leukocytosis, or urinary tract infection signs. The finding was therefore considered colonization rather than infection (1, 4). Immediately after the C. auris result was confirmed, the patient was moved to a single room and infection-control measures were intensified (1, 2). Following appropriate follow-up and counseling, she was discharged from the hospital in stable condition.

The patient had initially shared a three-bed room with two other patients and was cared for by the same nursing team. Consequently, screening swab cultures from the nares and axillae were obtained not only from the two roommates but also from patients in other rooms cared for by the same nursing staff. The results are summarized in Table 1.

Discussion and Literature Review

1. Epidemiology and Risk Factors

Candida auris predominantly affects critically ill or immunocompromised patients (3, 4, 7). Risk factors include exposure to broad-spectrum antibiotics or antifungal agents, prolonged hospitalization, and the presence of invasive devices (4, 7, 8). In our patient prior meropenem and fluconazole use, a urinary catheter, and contact with multiple patients and shared nursing care were notable risk factors.

2. Diagnosis and Significance of Colonization

Candida auris can be misidentified as C. haemulonii or other Candida species in routine laboratories. Accurate identification requires MALDI-TOF mass spectrometry or real-time PCR (4, 7). The 2025 Republic of Türkiye Ministry of Health, General Directorate of Public Health guideline recommends forwarding suspected isolates to the National Mycology Reference Laboratory (2, 9-12).

Colonization refers to the presence of C. auris on body sites without clinical infection and may persist for prolonged periods. Even colonized patients warrant stringent infection control.

3. Infection Control Measures

Both the Türkiye HSGM 2025 guideline and the CDC Infection Control Guidance: Candida auris give similar recommendations (1, 2):

Contact isolation: Care in a single room whenever possible; cohorting only if absolutely necessary. Use of gloves and gowns is mandatory.

Environmental cleaning: Daily and terminal cleaning with 0.5–1 % sodium hypochlorite or peracetic acid; quaternary ammonium compounds should be avoided.

Screening of contacts: Axillary and groin swabs from roommates and, as in our case, from other patients cared for by the same nursing staff.

Healthcare workers: Routine screening is not recommended; strict hand hygiene is critical.

Transfer notification: Colonization must be communicated when transferring the patient to another ward or facility.

CDC August 2025 Update:

In its August 2025 update, the CDC emphasized strengthening contact precautions for C. auris, prioritizing single-room isolation and advising cohorting only when essential. The update recommends 0.5–1 % sodium hypochlorite or EPA K-List disinfectants proven effective against *C. auris* and calls for increased cleaning frequency. It also allows environmental cultures from nursing stations and common areas when outbreaks are suspected, mandates communication of colonization status upon patient transfer,

and underscores daily reassessment of the need for invasive devices (1).

In addition to national and CDC guidance, strict institutional infection control practices are implemented, including single-room isolation, when possible, contact precautions with gloves and gowns for the entire hospitalization, daily and terminal disinfection with agents effective against C. auris, and screening of close contacts (e.g., roommates or patients cared for by the same nursing staff). These measures, aligned with international recommendations, emphasize thorough environmental cleaning, documentation of colonization status, and communication upon patient transfer.

4. Treatment

Antifungal therapy is not recommended for colonization. If invasive infection develops, echinocandins are the first-line therapy (4, 7). Both CDC and Republic of Türkiye Ministry of Health, General Directorate of Public Health guidelines stress daily reassessment of all invasive devices.

5. Comparable Reports and Data from Türkiye

Since 2020, sporadic and outbreak-related C. auris cases have been increasingly reported in Türkiye (9, 13). Most published cases represent colonization associated with broad-spectrum antimicrobial exposure and prolonged hospitalization, consistent with the present case.

Recent national surveillance data highlight the increasing incidence of C. auris in tertiary hospitals, emphasizing the need for active screening and infection control preparedness. These findings underscore that early detection, accurate species identification, and strict adherence to national and international guidelines are vital for controlling hospital transmission.

CONCLUSION

This case highlights the risks of C. auris colonization associated with broad-spectrum antimicrobial use and underscores the importance of rapid infection-control action. Immediate single-room isolation following confirmation of C. auris and discharge after appropriate monitoring demonstrate the value of prompt control measures (1, 2). Strict infection control is essential to prevent both infection and nosocomial spread. The CDC August 2025 update, complemented by rigorous institutional infection control practices, provides key guidance for timely detection, isolation, and prevention of hospital transmission.

Table 1. Nasal and Axillary Culture Results of Contact Patients

Patient No	Nasal Culture	Axillary Culture
H2	Normal upper respiratory flora (negative)	Skin flora (negative)
H3	Normal upper respiratory flora (negative)	Skin flora (negative)
H4	Normal upper respiratory flora (negative)	Skin flora (negative)
H5	Normal upper respiratory flora (negative)	Coagulase-negative staphylococci
H6	Normal upper respiratory flora (negative)	Coagulase-negative staphylococci
H7	Normal upper respiratory flora (negative)	*Staphylococcus epidermidis*
H8	Normal upper respiratory flora (negative)	*Staphylococcus haemolyticus*
H9	No bacterial growth	No bacterial growth

Declarations

This study is based solely on a single patient case report; it is retrospective in nature and does not involve any experimental intervention. Therefore, according to the guidelines of İnönü University Ethics Committee and the principles of the Declaration of Helsinki, ethical approval was not required. Informed consent was obtained from the patient

Authors' Contributions

Concept/design of the case report: SAT. Patient management: SAT, AK. Infection-control evaluation: SAT, AK. Drafting and critical revision of the manuscript: SAT. Data collection: ENP. Infection-control practice documentation: ENP. Manuscript review and approval: ENP. Infection-control observation: NB. All authors approved the final version of the manuscript and agreed to be accountable for all aspects of the work

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

REFERENCES

1. Centers for Disease Control and Prevention (CDC). Infection Control Guidance: Candida auris. Last updated: August 2025. Available from: https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html
2. Türkiye Cumhuriyeti Sağlık Bakanlığı, Halk Sağlığı Genel Müdürlüğü. Sağlık Hizmetlerinde

Candida auris Enfeksiyonlarının Önlenmesi ve Kontrolü Rehberi. 2025.
3. Satoh K, Makimura K, Hasumi Y, Nishiyama Y, Uchida K, Yamaguchi H. Candida auris sp. nov., a novel ascomycetous yeast isolated from the external ear canal of an inpatient in a Japanese hospital. Microbiol Immunol. 2009;53(1):41-44.
4. Chowdhary A, Sharma C, Meis JF. Candida auris: a rapidly emerging cause of hospital-acquired multidrug-resistant fungal infections globally. PLoS Pathog. 2017;13(5): e1006290.
5. Horton MV, Johnson CJ, Kernien JF, et al. Candida auris Forms High-Burden Biofilms in Skin Niche Conditions and on Porcine Skin. mSphere. 2020;5(1): e00910-19.
6. Osei Sekyere J. Candida auris: A systematic review and meta-analysis of current updates on an emerging multidrug-resistant pathogen. Microbiologyopen. 2018;7(4): e00578.
7. Cortegiani A, Misseri G, Fasciana T, Giammanco A, Giarratano A, Chowdhary A. Epidemiology, clinical characteristics, resistance, and treatment of infections by Candida auris. J Intensive Care. 2018; 6:69.
8. Lockhart SR, Etienne KA, Vallabhaneni S, et al. Simultaneous emergence of multidrug-resistant Candida auris on three continents confirmed by whole-genome sequencing and epidemiological analyses. Clin Infect Dis. 2017;64(2):134-140.
9. Kurt AF, Kuşkucu MA, Balkan II, Barış A, Yazgan Z, Öz AS, et al. Candida auris Fungemia and a local spread taken under control with infection control measures: First report from Turkey. Int J Med Microbiol. 2021;39(2):228-230.
10. Orak F, Gülderen D, Orak Y, Öksüz H. Türkiye'de Candida auris Kandidemisi: Anadolu'da İlk Olgu. KSÜ Tıp Fak Der. 2025;20(1):91-95.
11. Bölükbaşı Y, Orhun G, Kuşkucu MA, Çağatay A, Önel M, Öngen B, et al. Türkiye'de ilk COVID-19 pozitif Candida auris fungemi olgusu. Mikrobiyol Bul. 2021;55(4):648-655.
12. Kulaklı K, Arslan N, Gürsan O, Özkütük A. İzmir'den ilk Candida auris izolasyonu: Amputasyon ile sonuçlanan polimikrobiyal diyabetik ayak enfeksiyonu. Turk Mikrobiyol Cemiy Derg. 2023;53(1):47-54.
13. Arıcı N, Kansak N, Adaleti R, Şenbayrak S, Aksaray S. Detection, screening, and antifungal susceptibility of the current threat Candida auris: A tertiary hospital experience. Haydarpasa Numune Med J. 2023; 63(4): 405-411.

Corresponding Author: Sibel Altunışık Toplu
E-mail: saltuntoplu@gmail.com
Orcid: 0000-0002-2915-4666

Author: Emine Nalan Parmaksız
Orcid: 0000-0002-5364-5641

Author: Adem Köse
Orcid: 0000-0002-1853-1243

Author: Nazire Bulam
Orcid: 0000-0002-7497-5017