

Candida auris Fact Sheet

Candida auris causes severe illness in hospitalized patients. In some patients, this yeast can enter the bloodstream and spread throughout the body, causing serious invasive infections. This yeast does not respond to commonly used antifungal drugs, making infections difficult to treat.

General Information

Mycology

Candida auris was first isolated from the external ear canal of a patient in Japan in 2009. It is a member of the yeast genus *Candida* with *Candida albicans* being the most common yeast that causes infection in humans. *Candida auris* is a species of fungus that grows as yeast and is ascomycetous. Ascomycetes are spore shooters, which produce microscopic spores inside special, elongated cells or sacs, known as asci. Asexual reproduction is the dominant form of propagation in the Ascomycota and is responsible for the rapid spread of these fungi into new areas.



Epidemiology of Transmission

As an emerging pathogen, the epidemiology of transmission for *Candida auris* is still under investigation. Early evidence suggests that the organism is spread in healthcare settings through contact with contaminated environmental surfaces or equipment, or from person to person. However, more research is required to understand how *Candida auris* spreads. It is unlikely that routine travel to countries with documented *Candida auris* infections would increase the chance of someone becoming ill from *Candida auris*, as infections have occurred primarily in patients who are admitted to the hospital for other reasons.

Clinical Manifestations

Candida auris infections have most commonly been hospital-associated and occurred several weeks into a patient's hospital stay. *Candida auris* has been reported to cause bloodstream infections, wound infections, and otitis (ear infection). It has also been cultured from urine and the respiratory tract; however, whether isolation from these sites represented infection versus colonization in each instance is unknown. *Candida auris* has been documented to cause infections in patients of all ages. Patients were found to have similar risk factors for infections with other *Candida* spp. including: diabetes mellitus, recent surgery, recent antibiotics, and presence of central venous catheters. Co-infection with other *Candida* spp. and detection of *Candida auris* while the patient was being treated with anti-fungals has also been reported. Most *Candida auris* infections are treatable with a class of anti-fungal drugs called echinocandins. However, some *Candida auris* infections have been resistant to all three main classes of anti-fungal medications, making them more difficult to treat. In this situation, multiple classes of anti-fungals at high doses may be required to treat the infection.

Basic Prevention

As the epidemiology of transmission is still unclear for *Candida auris*, it is important to ensure infection control practices are effectively implemented to prevent the spread of *Candida auris*. These practices include careful adherence to hand hygiene and using contact precautions, including wearing gown and gloves, when in contact with patients who have suspected or confirmed *Candida auris*. Thorough environmental cleaning of hospital rooms may also help in preventing the spread of *Candida auris*.



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Infection Prevention and Control Measures in Healthcare Settings

Healthcare Prevention Measures

Routine / Standard Precautions, as well as contact precautions should be implemented when providing care to clients who are suspected or confirmed to have *Candida auris*.

- Patients with suspected or confirmed *Candida auris* may be placed in private rooms or cohort with other patients with the same infection.
- Follow hand-hygiene guidelines by either carefully washing hands with soap and water or using Alcohol-Based Hand Sanitizers (ABHS) after contact with patients with suspected or confirmed *Candida auris*.
- Use gowns and gloves when in contact with, or caring for patients who are symptomatic with *Candida auris* for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment.
- Dedicate routine equipment to the infectious individual.

Environmental control measures

While more research is required to understand *Candida auris*, evidence suggests that this yeast may be able to persist in the environment for extended periods of time. Therefore, EPA/Health Canada registered surface disinfectants with proven efficacy against fungi should be used for daily environmental surface cleaning/disinfection.

Routine cleaning and disinfection should be performed on frequently touched environmental surfaces. There should be prompt removal of body fluids such as saliva, followed by routine disinfection. All patient care equipment should be cleaned and disinfected as soon as the equipment comes out of the room and all high touch surfaces in the patient's room must be cleaned and disinfected at least daily. Single use devices should be used and discarded in a waste receptacle after use. Semi-critical and Critical instruments which come into contact with mucous membranes or penetrate sterile tissues need to be adequately reprocessed using appropriate methods of disinfection or sterilization.

References:

1. CDC (2016). *Candida auris* Questions and Answers. <http://www.cdc.gov/fungal/diseases/candidiasis/candida-auris-qanda.html>
2. Satoh, K; et al. (2009), "*Candida auris* sp. nov., a novel ascomycetous yeast isolated from the external ear canal of an inpatient in a Japanese hospital", *Microbiol Immunol* 53 (1): 41–44, doi:10.1111/j.1348-0421.2008.00083.x
3. Gov. UK (2016). The characteristics, diagnosis and management of *Candida auris* (*C. auris*). <https://www.gov.uk/government/collections/candida-auris>
4. CDC (2016). Global Emergence of Invasive Infections Caused by Multidrug-resistant Yeast *Candida auris*. <http://www.cdc.gov/fungal/diseases/candidiasis/candida-auris-alert.html>

