

Candida auris (*C. auris*), a fungus that spreads easily in healthcare settings and is often resistant to some or all of the classes of antifungal drugs, has recently begun appearing in Missouri healthcare facilities. **Patients requiring complex medical care are at an increased risk for getting C. auris and some developing severe illness**. This document includes information and resources needed to prepare for and respond to *C. auris* in your facility.

Why is C. auris a problem?

C. auris is an emerging multidrug-resistant yeast (type of fungus) first identified in 2009 that has since spread worldwide. **Individuals with severe underlying conditions and requiring complex medical care are most at risk, as well as those with invasive medical devices like breathing tubes, feeding tubes, catheters in a vein, or urinary catheters**. Invasive infections with *C. auris* are particularly concerning and have caused death in about one in three persons who developed severe disease.

C. auris can be shed into the patient's surroundings and easily spread. Without the use of gowns and gloves, it can get onto the hands and clothing of caregivers and can then be spread to other patients. It can be difficult to eliminate from the patient's area: it can persist in the environment, may remain viable for several weeks, and some common disinfectants (like quaternary ammonium products) may be ineffective. Therefore, it is important to use an effective disinfectant found on <u>EPA List P</u>.

What if a resident in my facility has C. auris?

- Immediately initiate and regularly reinforce appropriate use of <u>enhanced barrier precautions</u>.
 - Skilled nursing facilities with residents on a ventilator, should initially place patients on contact precautions. Patients may be able to be moved to enhanced barrier precautions.
- Inform and educate appropriate personnel about the presence of a patient with *C. auris* and the need for rigorous adherence to infection control practices.
- Ensure strict adherence to hand hygiene and appropriate personal protective equipment (PPE) use.
- Perform thorough cleaning and disinfection of the patient care environment and any shared equipment (daily and terminal cleaning).
- If possible, use dedicated medical equipment for patients with confirmed or suspected *C. auris*.
- Promote antimicrobial stewardship to limit the emergence of *C. auris* and other multidrug- resistant organisms (MDROs).
- Ensure staff are required to notify the receiving facility about infection or colonization with *C. auris* when transferring patients.

What resources are available to help?

The Missouri Department of Health and Senior Services (DHSS), Healthcare Associated Infections/ Antimicrobial Resistance Program (HAI/AR program) is a non-regulatory program that can provide expertise and technical assistance. If you have questions regarding *C. auris* or need assistance regarding infection control practices, please reach out to us. We are also able to conduct Infection Control Assessment and Response (ICAR) visits to assist in identifying any potential gaps compared with CDC's best practice guidelines and provide feedback on successes or recommendations.

Helpful Links:

- Missouri Health Alert: Emerging Candida auris Infection Cases in Missouri Health Care Facilities: https://health.mo.gov/emergencies/ert/alertsadvisories/pdf/alert120623.pdf
- CDC C. auris Homepage: https://www.cdc.gov/fungal/candida-auris/index.html
- Infection Prevention: https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html
- EPA List P: https://www.epa.gov/pesticide-registration/list-p-antimicrobial-products-registered-epa-claims-against-candida-auris



Candida auris: A drug-resistant germ that spreads in healthcare facilities

Candida auris (also called *C. auris*) is a fungus that causes serious infections. Patients with *C. auris* infection, their family members and other close contacts, public health officials, laboratory staff, and healthcare workers can all help stop it from spreading.

Why is *Candida auris* a problem?

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It causes serious infections. *C. auris* can cause bloodstream infections and even death, particularly in hospital and nursing home patients with serious medical problems. More than 1 in 3 patients with invasive *C. auris* infection (for example, an infection that affects the blood, heart, or brain) die.



It's often resistant to medicines. Antifungal medicines commonly used to treat *Candida* infections often don't work for *Candida auris*. Some *C. auris* infections have been resistant to all three types of antifungal medicines.



It's becoming more common. Although *C. auris* was just discovered in 2009, it has spread quickly and caused infections in more than a dozen countries.



It's difficult to identify. *C. auris* can be misidentified as other types of fungi unless specialized laboratory technology is used. This misidentification might lead to a patient getting the wrong treatment.



It can spread in hospitals and nursing homes. *C. auris* has caused outbreaks in healthcare facilities and can spread through contact with affected patients and contaminated surfaces or equipment. Good hand hygiene and cleaning in healthcare facilities is important because *C. auris* can live on surfaces for several weeks.

How do I know if I have a *Candida auris* infection?

C. auris is still rare in the United States. People who get invasive *Candida* infections are often already sick from other medical conditions, so it can be difficult to know if you have a *C. auris* infection. The most common symptoms of invasive *Candida* infection are fever and chills that don't improve after antibiotic treatment for a suspected bacterial infection. Only a laboratory test can diagnose *C. auris* infection. Talk to your healthcare provider if you believe you have a fungal or healthcare-associated infection.



Most people who get serious *Candida* infections are already sick from other medical conditions.



Centers for Disease Control and Prevention National Center for Emerging and Zoonotic Infectious Diseases

Stopping the spread of Candida auris

CDC is working with public health partners, healthcare workers, and laboratories to stop the spread of *C. auris* in healthcare settings. Here's how CDC is asking everyone to help:



Family members and other close contacts of patients with C. auris

- » Clean your hands with hand sanitizer or soap and water before and after touching a patient with *C. auris* or equipment in his or her room.
- » Remind healthcare workers to clean their hands.

Laboratory staff, healthcare workers, and public health officials

- » Know when to suspect *C. auris* and how to properly identify it.
- » Report cases quickly to public health departments.
- » For healthcare workers, clean hands correctly and use precautions like wearing gowns and gloves to prevent spread.
- » Clean patient rooms thoroughly with a disinfectant that works against *C. auris*.
- » Investigate *C. auris* cases quickly and determine additional ways to prevent spread.
- » Check the CDC website for the most up-to-date guidance on identifying and managing *C. auris*: https://www.cdc.gov/fungal/diseases/candidiasis/recommendations.html.

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Scientists are still learning about Candida auris

CDC and public health partners are working hard to better understand *C. auris* and answer the following questions so that we can continue to help protect people from this serious infection:

- Why is C. auris resistant to antifungal medicines?
- Why did C. auris start causing infections in recent years?
- Where did *C. auris* originally come from, and why has it appeared in many regions of the world at the same time?

What is CDC doing?

CDC is collaborating closely with partners to better respond, contain spread, and prevent future infections by:

- Advising healthcare workers and infection control staff on ways to stop the spread
 of *C. auris* and continually updating this guidance as we learn more about the infection.
- Working with state and local health agencies, healthcare facilities, and clinical microbiology laboratories to ensure that laboratories are using proper methods to detect *C. auris.*
- Testing *C. auris* strains to monitor for resistance to antifungal medicines.
- Examining the DNA of *C. auris* strains using whole genome sequencing to better understand how this germ is spreading in the United States and around the world.
- Working with public health partners in the United States and internationally to learn more about how *C. auris* spreads in healthcare facilities and to eliminate it from those facilities.

For more information: Centers for Disease Control and Prevention (CDC), National Center for Emerging and Zoonotic Infectious Diseases Division of Foodborne, Waterborne, and Environmental Diseases Telephone 800-CDC-INFO (232-4636) Web http://www.cdc.gov/fungal



DRUG-RESISTANT CANDIDA AURIS

THREAT LEVEL URGENT





Isolates resistant to at Ieast **one** antifungal

Isolates resistant to at least two antifungals

Candida auris (C. auris) is an emerging multidrug-resistant yeast (a type of fungus). It can cause severe infections and spreads easily between hospitalized patients and nursing home residents.

WHAT YOU NEED TO KNOW

- C. auris, first identified in 2009 in Asia, has quickly become a cause of severe infections around the world.
- *C. auris* is a concerning drug-resistant fungus:
 - Often multidrug-resistant, with some strains (types) resistant to all three available classes of antifungals
 - Can cause outbreaks in healthcare facilities
 - Some common healthcare disinfectants are less effective at eliminating it
 - Can be carried on patients' skin without causing infection, allowing spread to others

Data represents U.S. cases only. Isolates are pure samples of a germ.



U.S. Department of Health and Human Services Centers for Disease Control and Prevention

CASES OVER TIME

C. auris began spreading in the United States in 2015. Reported cases increased 318% in 2018 when compared to the average number of cases reported in 2015 to 2017.



CONTAINING C. AURIS

It seemed hard to believe. CDC fungal experts had never received a report describing a *Candida* infection resistant to all antifungal medications, let alone *Candida* that spreads easily between patients. After hearing the news that infections like this were identified by international colleagues in 2016, CDC sounded the alarm in the United States about *C. auris,* a life-threatening *Candida* species.

Disease detectives from CDC and state and local health departments soon investigated some of the first U.S. *C. auris* infections. They learned more about how the fungus spreads, and how CDC, health departments, and healthcare facilities can contain it. A key finding was that *C. auris* spreads mostly in longterm healthcare facilities among patients with severe medical problems. CDC and partners developed new tests to rapidly identify it, and continue to work with healthcare facilities to control spread.

A GLOBAL THREAT

Investigators still do not know why four different strains of *C. auris* emerged around the same time across the globe. All four strains have been found in the United States, likely introduced through international travel and subsequent spread in U.S. healthcare facilities.





ONLINE RESOURCES

About C. auris www.cdc.gov/fungal/Candida-auris/index.html

Information for Laboratorians and Healthcare Professionals www.cdc.gov/fungal/candida-auris/health-professionals.html

This fact sheet is part of CDC's 2019 Antibiotic Resistance Threats Report. The full report, including data sources, is available at <u>www.cdc.gov/DrugResistance/Biggest-Threats.html</u>.