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

A CDC message to laboratory staff

Candida auris is a yeast that causes serious infections. Laboratory staff, healthcare workers, and infection preventionists can all help stop it from spreading.

Why is Candida auris a problem?

- It causes serious infections. *C. auris* can cause bloodstream and other types of invasive infections, particularly in patients in hospitals and nursing homes who have multiple medical problems. More than 1 in 3 patients die within a month of *C. auris* infection.
- It is often multidrug-resistant. Antifungal medications commonly used to treat *Candida* infections often don't work for *C. auris*. Some *C. auris* isolates are resistant to all three major classes of antifungal medications.
- It's becoming more common. Although *C. auris* was just recognized in 2009, it has emerged quickly. Since then, it has been reported from over 20 countries, including the United States.

- It's difficult to identify. C. auris can be misidentified as other types of yeast unless specialized laboratory methods are used.
 Unrecognized C. auris can spread to other patients in a facility, causing an outbreak.
 Identifying C. auris is critical to knowing what steps to take to control it in a healthcare setting.
- It can spread in healthcare facilities. Just like other multidrug-resistant organisms such as CRE and MRSA, *C. auris* can be transmitted in healthcare settings and cause outbreaks. It can colonize patients for many months, persist in the environment, and withstand many routinely used disinfectants in healthcare facilities.

Early detection can help limit spread of *C. auris*

Prepare for C. auris identification

- 1. Some phenotypic methods for yeast identification can misidentify *C. auris* as a number of different organisms.
 - i. C. auris is most often misidentified as Candida haemulonii, another rare yeast, but misidentifications are specific to each yeast identification method.
 - ii. Know whether the yeast identification method used in your laboratory misidentifies *C. auris* and, if so, what the possible misidentifications are. See www.cdc.gov/fungal/candida-auris for common misidentifications by yeast identification method.
 - iii. Misidentification can lead to inappropriate patient treatment and delay implementation of appropriate infection control precautions.

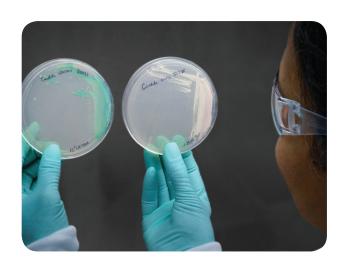
- 2. There are no phenotypic characteristics that can easily distinguish *C. auris* from other *Candida* species.
- 3. The most reliable way to identify *C. auris* is matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS).
 - i. If you have a MALDI-TOF MS, ensure *C. auris* is included in the database.
- Molecular methods based on DNA sequencing can also identify *C. auris*. Sequencing of the D1-D2 region of the 28s ribosomal DNA (rDNA) or internal transcribed spacer (ITS) region of rDNA are accepted methods.



- 5. Validate your instrument to confirm it can identify *C. auris*. If needed, use isolates from wwwn.cdc.gov/ARIsolateBank/.
- 6. Work with your facility's infection preventionist to set up a plan for informing their department about possible or confirmed *C. auris* and subsequent notification of public health authorities.
- 7. Work with your state and local public health department for further characterization of these isolates. The health department will determine whether additional outreach to the Antibiotic Resistance Laboratory Network or CDC is needed.

What should I do if *C. auris* is confirmed?

- 1. Report possible or confirmed *C. auris* cases immediately to your facility's infection prevention and control department and follow your facility's process for reporting to public health.
- 2. Conduct antifungal susceptibility testing.
- 3. Look for other cases of *C. auris* in your facility:
 - i. Review microbiology records back to 2015 if possible to find potentially missed cases.
 - ii. Begin surveillance for *C. auris* from clinical specimens to identify new cases.
 - a. C. auris is found in many body sites and fluids, including blood, urine, respiratory, and abdominal specimens.
 - b. Consider identifying the species of Candida isolates from both sterile and non-sterile sites, even if this is not routine practice at your facility. Continue this surveillance for at least one month or until there is no evidence of transmission.



More guidance on when to suspect *C. auris*, how to correctly identify *C. auris*, and suggested antifungal drug minimum inhibitory concentration (MIC) cutoff values are available on CDC's webpage, Recommendations for Identification of *C. auris*:

www.cdc.gov/fungal/candida-auris.

For more information, please contact the Centers for Disease Control and Prevention (CDC), National Center for Emerging and Zoonotic Infectious Diseases, Division of Foodborne, Waterborne, and Environmental Diseases.

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