Chicago Department of Public Health

Health Alert

City of Chicago
Rahm Emanuel, Mayor

Communicable Disease Program

Chicago Department of Public Health
Julie Morita, MD, Commissioner

Candida auris clinical update: case finding and public health reporting

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To: Clinical Laboratories, Infection Control Professionals, Infectious Disease Physicians, Long-Term Care

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Subject: *Candida auris* clinical update: case finding and public health reporting

KEY MESSAGES and ACTION STEPS:

- **All *Candida* isolates from sterile sites should be identified to the species level. *C. auris* is commonly misidentified as *Candida haemulonii***
- **Testing *Candida* isolates from non-sterile sites to determine species should be considered if:**
  - **clinically indicated (e.g. suspected treatment failure)**
  - **there is an epidemiological link to a known *C. auris* patient, or**
  - **patient has recent hospitalization in a country with known *C. auris* transmission**
- **Report to public health any of the following:**
  - ***C. auris***
  - ***C. haemulonii***
  - **Any *Candida* isolate for which species identification was attempted, but could not be determined**
  - **Other organisms for which C. auris can be misidentified https://www.cdc.gov/fungal/diseases/candidiasis/recommendations.html**

Background: *Candida auris* is an emerging multidrug-resistant yeast that can be transmitted in healthcare settings and has been shown to cause healthcare-associated outbreaks. As of October 31, 2017, 186 clinical cases of *C. auris* infection and 212 colonized patients have been reported in 10 U.S. states. In Illinois, 9 confirmed and 2 probable cases of clinical *C. auris* infection have been identified. (https://www.cdc.gov/fungal/diseases/candidiasis/tracking-c-auris.html). Probable cases are those with supportive lab evidence and epidemiologic linkage (e.g. *C. haemulonii* identified in a facility with other known *C. auris* case(s) and no isolate is available for further testing).

Clinical Characteristics: About half (54%) of the clinical cases in the U.S. have been identified through blood cultures; however, patients have also been infected or colonized with *C. auris* in urine, wounds, sputum, bronchoalveolar lavage fluid, and other non-invasive sites (https://www.cdc.gov/fungal/diseases/candidiasis/c-auris-alert-09-17.html). In the United States to date, about 90% of *C. auris* isolates have been resistant to fluconazole, 30% have been resistant to amphotericin B, and 5% have been resistant to echinocandins (https://www.cdc.gov/fungal/diseases/candidiasis/recommendations.html). Some *C. auris* isolates from outside of the United States have been found to be resistant to all three classes of antifungal drugs, and many isolates are resistant to multiple classes of drugs. Patients with *C. auris* infection should be closely monitored for persistently positive clinical cultures, which may indicate treatment failure. Some patients diagnosed with *C. auris* in the U.S. have had recent hospitalization in countries with known *C. auris* transmission including India, Pakistan, South Africa, and Venezuela. Clinicians should have a low threshold to test these patients for *C. auris,* if clinically indicated. Patients can be persistently colonized with *C. auris*, posing a long-term transmission risk.

Infection Control: Patients suspected or confirmed to be colonized or infected with *C. auris* should be placed in a single-patient room using Standard and Contact Precautions. Consider screening close contacts of patients with *C. auris* for the presence of colonization (see https://www.cdc.gov/fungal/diseases/candidiasis/c-auris-infection-control.html). If multiple patients are colonized or infected with *C. auris*, please contact CDPH to discuss cohorting and other infection control interventions. To clean and disinfect the patient care environment, CDC currently recommends the use of an EPA-registered sporicidal cleaner (list available here: https://www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium).

Laboratory: *C. auris* can be misidentified as a different organisms when using traditional biochemical methods for yeast identification such as VITEK 2 YST, API 20C, BD Phoenix yeast identification system, and MicroScan. See https://www.cdc.gov/fungal/diseases/candidiasis/recommendations.html for more information. All laboratories, especially laboratories serving healthcare facilities where cases of *C. auris* have been detected should do the following:

- Review past microbiology records (as far back as 2015, if possible) to identify cases of confirmed or suspected *C. auris*.
- Conduct prospective surveillance to identify *C. auris* cases in the future.
- When a case of *C. auris* infection or colonization has been detected in a facility or unit, species identification of isolates from non-sterile sites can be implemented for at least one month until no evidence exists of *C. auris* transmission.

Reporting: If a patient with *C. auris* is detected or suspected, please report to the Communicable Disease Program at the Chicago Department of Public Health for further recommendations by contacting Janna Kerins (312-746-6219, Janna.Kerins@cityofchicago.org) or Massimo Pacilli (312-746-6225, Massimo.Pacilli@cityofchicago.org). CDPH will facilitate submission of available isolates to CDC via the Illinois Department of Public Health laboratory for further characterization.

What Public Health is doing:

- Meeting with stakeholders including infection control specialists to share information and solicit feedback
- Developing training for healthcare and environmental services workers
- Conducting surveillance and contact tracing
- Facilitating testing for accurate identification of *C. auris* infections
- Developing tools for healthcare facilities to properly identify, treat and control the spread of *C. auris*
- Conducting on-site visits to hospitals and long-term care facilities to assess and provide consultation on infection control practices
- Developing ongoing guidance for hospitals and long-term care facilities based on newly emerging information related to treatment and infection control
- Ensuring inter-facility communication when a patient with *C. auris* infection is transferred to other healthcare facilities
- IDPH is currently entering IL residents found to be colonized or infected with *C. auris* into the XDRO registry (https://www.xdro.org). Providers may query the XDRO registry to check if patients have been previously diagnosed with *C. auris*