Health Advisory
Update: Outbreak and Containment of Candida auris in PA Healthcare Facilities
August 3, 2021

SUMMARY POINTS

- This advisory provides an update on the outbreak of C. auris in Pennsylvania, first reported in August 2020.
- Candida auris has been detected in a patient during admission to an acute care hospital in Dauphin County. Based on what is known at this time, the patient has no epidemiologic links to other cases, no known history of international travel nor have they received healthcare outside the southcentral Pennsylvania area. Containment and response activities are ongoing.
- Suspected or confirmed cases of C. auris identified in Pennsylvania should be reported promptly to DOH by calling 1-877-PA-HEALTH, or your local health department. Philadelphia cases should be reported to PDPH at 215-685-6748.

EPIDEMIOLOGY OF C. AURIS IN PENNSYLVANIA

The Pennsylvania Department of Health (DOH) and Philadelphia Department of Public Health (PDPH) are reminding healthcare facilities, providers and laboratories to have heightened awareness for C. auris in patients and to take action to contain the spread.

In March 2020, the first confirmed case of C. auris in Pennsylvania was detected in a patient admitted to a Philadelphia short-term acute care hospital with a history of healthcare exposures in another state. In June 2020, a second clinical case of C. auris was detected in a Delaware County short-term acute care hospital. Case investigation revealed the patient had a complex medical history with multiple admissions to healthcare facilities in Southeastern Pennsylvania.

In response to this case, a Tier 2 containment strategy was implemented according to the Centers for Disease Control and Prevention (CDC) guidelines and in consultation with CDC. A multi-jurisdictional public health investigation was conducted, and efforts were made to assure that cases were detected and transmission contained. The acute outbreak was closed, but public health efforts continue to describe the epidemiology of C. auris in Pennsylvania, promote awareness and contain cases as they are identified.

In July 2021, Candida auris was detected in a patient during admission to an acute care hospital in Dauphin County. Based on what is known at this time, the patient has no epidemiologic links to other cases, no known history of international travel nor have they received healthcare outside the southcentral Pennsylvania area. Containment and response activities are ongoing.

As of today, cases of C. auris infection and colonization have been detected in healthcare facilities in Dauphin, Delaware, Lehigh, Montgomery, and Philadelphia Counties. Fifty-two cases of C. auris infection and colonization have been identified in patients in 13 healthcare facilities, including short-term and long-term acute care hospital (LTACH) and a skilled nursing facility (SNF) since March 2020 when the first case C. auris was identified in PA.

This HAN provides recommendations for PA healthcare facilities, providers, and laboratories for prevention and planning purposes in areas where C. auris has not yet been identified, and containment of C. auris when cases are detected.

C. AURIS BACKGROUND

C. auris is an emerging fungus that presents a serious global health threat. CDC, DOH and PDPH are concerned about C. auris for three reasons:
C. auris infection has been identified in many body sites including bloodstream, urine, respiratory tract, wounds, and external ear canal. Based on information from a limited number of patients, CDC reports that 30–60% of people with C. auris infections have died. Many of these people had other serious illnesses that also increased their risk of death.

Level of colonization may vary over time, leading to intermittent positive and negative results if testing is repeated. For this reason, there is no established criteria for resolution of colonization, and testing for clearance is not recommended. C. auris is also persistent in the environment and will survive many disinfectants routinely used in healthcare facilities.

Risk Factors
Persons who have recently spent time in hospitals and nursing homes and have invasive devices (e.g. mechanical ventilation or tracheostomy, feeding tubes and central venous catheters) seem to be at highest risk for C. auris infection. Like other types of Candida infections, risk factors include recent surgery, diabetes, broad-spectrum antibiotic and antifungal use. Infections have been found in patients of all ages.

Although risk of transmission within a healthcare facility increases with length of stay, documented transmission has occurred during exposure periods as short as four hours.1,2

Routine travel to countries with documented C. auris infections is not likely to increase the chance of someone getting sick from C. auris. Persons who travel to these countries to seek medical care or who are hospitalized there for a long time may have an increased risk for C. auris infection or colonization; however, most new cases of C. auris infection in the U.S. are not linked to international exposure and are thought to be domestically acquired.

Transmission
C. auris can spread in health care settings through contact with contaminated environmental surfaces or equipment or from person to person. Transmission is not thought to occur via persistent colonization of healthcare workers.

Diagnosis
Laboratory diagnosis of clinical infection is made through routine cultures. However, C. auris can be misidentified as several different organisms, particularly Candida haemulonii, when using traditional phenotypic methods for yeast identification. The CDC algorithm to identify C. auris based on phenotypic laboratory method and initial species identification is available here: https://www.cdc.gov/fungal/candida-auris/recommendations.html

For more information, please see the Recommendations for Laboratorians and Health Professionals.

Treatment
CDC does not recommend treatment of C. auris identified from noninvasive sites (such as respiratory tract, urine, and skin colonization) when there is no evidence of infection. Similar to recommendations for other Candida species, treatment is generally only indicated if clinical disease is present. Patients who become colonized with C. auris are at risk of developing invasive infections from this organism. More information about how to prevent colonization from developing into infection is available from the CDC.

Infection control measures should be used for all patients with C. auris, whether infected or colonized, and regardless of the source of specimen. Transmission-based precautions should not be discontinued when treatment for an infection ends but should be continued for the duration of the patient’s stay in a healthcare facility and implemented for any future healthcare stays.
INFECTION PREVENTION AND CONTROL FOR C. AURIS

The primary infection control measures for prevention of C. auris transmission in healthcare settings are:

- Adherence to hand hygiene. Alcohol-based hand rub (ABHR) is effective against C. auris and is the preferred method for routine hand hygiene.
- Appropriate use of transmission-based precautions. Patients colonized or infected with C. auris in hospitals and nursing homes should be managed using contact precautions.
- Cleaning and disinfecting the patient care environment (thorough daily and terminal cleaning) and reusable equipment with an EPA-registered disinfectant with a claim against C. auris (List P) or a product with documented effectiveness against C. auris by CDC, is critical as C. auris can persist on surfaces in healthcare settings. If none of these products are available, an EPA-registered hospital-grade disinfectant effective against Clostridioides difficile spores (List K) can be used. Note that many products with label claims against COVID-19 are not effective against C. auris.
- Inter-facility communication about patient’s C. auris status when a patient is transferred to another healthcare facility.
- Screening contacts of newly identified case patients to identify C. auris colonization.
- Laboratory surveillance of clinical specimens to detect additional cases.

Additional information can be obtained on the CDC Infection Prevention and Control for Candida auris page.

Colonization Screening

All healthcare facilities and providers in eastern and southcentral Pennsylvania should consider screening patients at high risk for C. auris including:

- Healthcare contacts of those with newly identified C. auris infection or colonization;
- Patients with the following risk factors for C. auris, especially those with more than one risk factor:
  - Patients who are on a mechanical ventilator or have a tracheostomy and reside in or are transferred from an LTACH or a SNF with the capability to care for residents on ventilators;
  - Patients who had an overnight stay in a healthcare facility outside the United States within the last year;
  - Patients infected or colonized with carbapenemase-producing carbapenem-resistant Enterobacteriaceae (CP-CRE); co-colonization of C. auris with these organisms has been observed.

Healthcare facilities and providers should contact their local health department or DOH to discuss public health resources for screening before proceeding independently. Limited public health laboratory resources are available to perform colonization screening using a validated method of detection for composite axillary/groin swabs.

CONTAINMENT RESPONSE FOR C. AURIS

A single case of C. auris (infection or colonization) requires a robust containment response. Be aware that as part of the current outbreak investigation, local and state public health departments may be conducting outreach to healthcare facilities and clinical laboratories with epidemiologic links to case patients or healthcare facilities with cases of C. auris.

Healthcare Facilities and Providers

For all healthcare facilities and providers in the eastern and southcentral regions of PA, DOH and PDPH jointly request that facilities implement the following containment measures:

- Develop and maintain C. auris action plans to assure measures are in place should a patient with C. auris be detected in, or transferred to, the facility.
- Maintain vigilance for clinical illness that could be consistent with C. auris, particularly in patients at higher risk.
- Evaluate surveillance protocols with the laboratory to ensure prompt notification to the infection prevention and control program when C. auris is suspected.
- Deliver education to staff and providers about C. auris and the infection prevention and control measures necessary to contain it. Resources are available on CDC’s C. auris infection prevention and control page.
Facilities that have not previously had C. auris cases should contact their local public health jurisdiction prior to admitting a patient known or suspected to be colonized or infected with C. auris.

- Report to the local public health jurisdiction when a patient colonized or infected with C. auris will be transferred from your facility to another facility; this allows public health to work with the receiving facility to provide education and ensure they are prepared to implement appropriate infection prevention and control measures.

- Review environmental health practices for effectiveness against C. auris. Use of an EPA-registered hospital-grade disinfectant with a claim against C. auris (List P) or a product with documented effectiveness against C. auris by CDC, is critical as C. auris can persist on surfaces in healthcare settings. If none of these products are available, an EPA-registered hospital-grade disinfectant effective against Clostridioides difficile spores (List K) can be used. Note that many products with label claims against COVID-19 are not effective against C. auris.

- Increase audits for hand hygiene, personal protective equipment (PPE) and environmental cleaning on units where patients with C. auris are located. Consider re-educating healthcare personnel through an in-service or retraining, especially if audits demonstrate low adherence to recommended infection prevention and control practices.

Due to the ongoing COVID-19 response, healthcare facilities should assess how contingency and crisis capacity standards for PPE impact the containment of MDROs. For patients infected or colonized with organisms listed as urgent and serious threats on CDC’s 2019 Antibiotic Resistance Threats report, we strongly recommended the use of conventional capacity standards for PPE.

Clinical Laboratories
Clinical laboratories processing specimens from residents receiving healthcare in eastern and southcentral PA should implement methods to detect C. auris as outlined below:

- Use the CDC Candida auris laboratory resource and algorithm to identify C. auris based on the available phenotypic laboratory method and initial species identification.

- If your laboratory does not have methodologies required to speciate C. auris, talk with your health department to evaluate the utility of forwarding isolates suspicious for C. auris for further testing at commercial or public health laboratories that can perform C. auris identification. Please do not forward isolates to the public health laboratories without health department approval.

- If possible, perform speciation for all yeast isolates from an inpatient in a healthcare facility (acute care hospital, LTACH, or SNF), including from both normally sterile and nonsterile body sites. This activity may be particularly useful in the 3 months following the release of this alert, as we seek to understand the local epidemiology of C. auris in PA.

Reporting
Healthcare facilities, providers and laboratories with suspected or confirmed cases of C. auris (infection or colonization), should report them to PDPH at 215-685-6748 or DOH by calling 1-877-PA-HEALTH, or your local health department. C. auris became nationally notifiable in 2018.

References


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