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Health Alert

New Outbreak and Containment of *Candida auris* in PA Healthcare Facilities

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SUMMARY POINTS

Controlling the spread of multi-drug resistant organisms (MDROs), including C. auris is still of utmost importance during the COVID-19 pandemic. The Pennsylvania Department of Health (DOH) and the Philadelphia Department of Public Health (PDPH) are jointly providing guidance to request that:

- Healthcare facilities 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;
- Healthcare providers maintain vigilance for clinical illness that could be consistent with *C. auris*;
- Healthcare facilities deliver education to staff and providers about *C. auris* and the infection prevention and control measures necessary to contain it;
- Healthcare facilities that have not previously had *C. auris* cases contact their local public health jurisdiction prior to admitting a patient known or suspected to be colonized or infected with *C. auris*;
- Healthcare facilities report to their local public health jurisdiction when a patient colonized or infected with *C. auris* will be transferred to another facility;
- Environmental health practices are reviewed for effectiveness against *C. auris*;
- Laboratories implement methods to detect *C. auris* as outlined in this HAN.

Suspected or confirmed cases of *C. auris* identified in Pennsylvania should be reported promptly to PDPH at 215-685-6748 or DOH by calling 1-877-PA-HEALTH, or your local health department.

EPIDEMIOLOGY OF *C. AURIS* IN PENNSYLVANIA

The Pennsylvania Department of Health (DOH) and the Philadelphia Department of Public Health (PDPH) are jointly updating the following guidance. **DOH is 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.

As of today, cases of *C. auris* infection and colonization have been detected in healthcare facilities in Delaware, Lehigh, Montgomery, and Philadelphia Counties. **Forty-six cases of *C. auris* colonization and infection have been identified in patients in 11 healthcare facilities**, including short-term acute care hospitals, a long-term acute care hospital (LTACH) and a skilled nursing facility (SNF).

Based on proximity to neighboring states and the recent detection of multiple cases of *C. auris* within Pennsylvania, ***it is possible that C. auris spread in eastern PA may be occurring undetected in healthcare facilities of all types.*** This HAN provides recommendations for eastern PA healthcare facilities, providers, and laboratories on a regional approach for containment of *C. auris* and insight into the prevention and control of *C. auris* for other regions of the Commonwealth.

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:**

- It is often multidrug-resistant, meaning that it is resistant to multiple antifungal drugs commonly used to treat *Candida* infections, resulting in significant morbidity and mortality in affected patients.
- It is difficult to identify with standard laboratory methods, and it can be misidentified in laboratories without specific technology. Misidentification may lead to inappropriate management.
- It has caused outbreaks in healthcare settings. For this reason, it is important to quickly identify *C. auris* so that healthcare facilities can take special precautions to stop its spread.

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 Pennsylvania should consider screening patients at high risk for *C. auris.*

- 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. 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 region 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.
    - Educational in-services must include an emphasis on hand hygiene. Alcohol-based hand sanitizer is effective against *C. auris* and is the preferred method for cleaning hands when they are not visibly soiled. If hands are visibly soiled, wash with soap and water.
- 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 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 eastern 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

1. Public Health England. Guidance for the laboratory investigation, management and infection prevention and control for cases of Candida auris - August 2017 v2.0. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/637685/Updated_Candida_auris_Guidance_v2.pdf

2. Schelenz S, Hagen F, Rhodes JL, Abdolrasouli A, Chowdhary A, Hall A, et al. First hospital outbreak of the globally emerging *Candida auris* in a European hospital. Antimicrob Resist Infect Control. 2016;5:35. Available from: https://aricjournal.biomedcentral.com/articles/10.1186/s13756-016-0132-5

This information is current as of May 28, 2021 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.