

# Healthcare Facility Toolkit for Response to *Candida auris*

Materials for Healthcare  
Facilities

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**pennsylvania**

DEPARTMENT OF HEALTH

BUREAU OF EPIDEMIOLOGY

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*Please note that page numbers are not included throughout the toolkit because individual documents are designed to be distributed or used together or as stand-alone resources. Please use your pdf viewing software to find documents by page number.*

# Introduction

This toolkit provides a comprehensive set of materials for healthcare facilities responding to outbreaks, clusters, or single cases of *Candida auris*. These materials may assist with education and communication efforts during investigation and response.

*C. auris* is a Tier 2 response organism in Pennsylvania. Please refer to the Centers for Disease Control and Prevention (CDC) [containment strategy](#) guidance.

This toolkit contains materials developed by the Pennsylvania Department of Health, Bureau of Epidemiology, Division of Healthcare-associated Infection Prevention (HAIP) based on established best practices, conversations with the Centers for Disease Control and Prevention (CDC) and other state and local health departments, and a key publication on infection prevention and control of *C. auris*:

**Infection Prevention and Control for *Candida auris*** (January 2023)

Available at: <https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html>

Public health response to *C. auris* is a rapidly changing field, and the toolkit will be updated to reflect changing priorities and strategies. Please refer to the CDC website (<https://www.cdc.gov/hai/containment/guidelines.html>) and the HAIP Division website (<https://www.health.pa.gov/topics/programs/HAIP-AS/Pages/HAIP-AS.aspx>) for the most recent information.

## Summary of Infection Prevention and Control Recommendations for *Candida auris* Containment & Prevention

### **For all healthcare facility types and providers, even those with no *C. auris* cases, the following measures are recommended:**

- Develop and maintain *C. auris* action plans to assure containment 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](#) or in this toolkit.
  - Educational in-services must include an emphasis on [hand hygiene](#). Alcohol-based hand rub (ABHR) 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*.

### **For healthcare facilities with patients who are colonized or infected with *C. auris*:**

- Review environmental health practices for effectiveness against *C. auris*. Use 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](#). *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*. A 30-minute training on how to choose the proper EPA-registered disinfectant is available on [TRAIN PA](#) Course number [1102420](#).
- Increase audits for hand hygiene, personal protective equipment (PPE) use 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.
- 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.

## Example Script for Colonization Screening: *Candida auris*

Hi, my name is [insert name], and I work for [insert organization]. I'm here to talk to you about a screening the [insert healthcare facility e.g., hospital or nursing home] is doing to check for a germ. Recently, we identified a germ, which is rare in the United States, in a patient who was cared for at this facility. The germ is called *Candida auris* and is a type of yeast that can be resistant to many of the drugs used to treat it. It can also spread from patient to patient in hospitals and nursing homes.

It is unlikely that you carry this germ, and fortunately, most people who do carry it never get sick from it. However, if you do carry the germ, there's a chance you can become sick with it later, and knowing you are carrying it will allow your doctors to manage your treatment better.

To make sure this germ has not spread, the health department would like us to screen people to make sure they don't have it. We are screening patients who might have come into contact with this germ to see if they are now also carrying it.

If you agree to be screened, the process is very simple and takes just a few seconds. We would need to swab your armpit and your groin, the area where your leg joins your body. To do that, we would gently rub just the tip of a soft swab, which looks like a Q-tip, across your armpit followed by your groin. The process is not painful and there shouldn't be any side effects.

The swab will be sent to a lab to test for the germ, which will take a few days. If they find the germ, someone will contact you to discuss what to do. The results of the test will be kept confidential to the extent allowed by law.

Providing a swab is completely voluntary and you do not have to participate.

Do you have any questions? [pause for questions]

Is it OK if we collect the swab?

Agree  Decline

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Signature of screener Date

[Please leave a copy of the FAQs with the patient or resident]

# Candida auris Testing

## Information for Patients

*Candida auris* (also called *C. auris*) is a fungus that can cause serious infections. *C. auris* can spread from one patient to another in hospitals and nursing homes. Patients can carry *C. auris* somewhere on their body, even if it is not making them sick. This is called colonization. When people in hospitals and nursing homes are colonized, *C. auris* can spread from their bodies and can get on other people or nearby objects, allowing the fungus to spread to people around them. CDC recommends testing patients who may have come in contact with *C. auris* to see if they are carrying this fungus. This allows healthcare providers to know who is carrying the fungus and take steps to prevent it from spreading to other people.

### Why am I being tested for *C. auris*?

You may have come in contact with *C. auris* while you were in this or another healthcare facility.

To keep the fungus from spreading, we are testing patients to see if they are now carrying the fungus. You may be carrying it on your skin without having an infection or symptoms of an infection. This is called colonization.

**Fortunately, most people who carry *C. auris* do not get sick from it.**

Getting tested for *C. auris* helps our healthcare facility and the health department prevent the fungus from spreading in the facility and in the community.

### Why is *C. auris* concerning?

- It can cause serious infections.
- It is often resistant to medicines, making it difficult to treat.
- It is becoming more common.
- It is difficult to identify by routine lab tests.
- It can spread in hospitals and nursing homes.



### What should I expect if I get tested?

1. The nurse or doctor will wipe or rub a cotton swab on the skin near your armpits and the area where your leg joins your body (groin). The test is not painful.
2. The swab will be sent to a lab, and in 1 to 2 weeks, the lab will tell your doctor the results.
3. If the test shows you are carrying the fungus, then your nurse or doctor will talk to you about the results and what to do next.

You can choose not to be tested. Talk to your nurse or doctor if you have questions or concerns about testing.



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Health and Human Services  
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Control and Prevention

**Want to learn more?**

[www.cdc.gov/fungal/candida-auris](http://www.cdc.gov/fungal/candida-auris)

# Candida auris Colonization

## Information for Patients

*Candida auris* (also called *C. auris*) is a fungus that can cause serious infections. *C. auris* can spread from one patient to another in hospitals and nursing homes. Patients can carry *C. auris* somewhere on their body, even if it is not making them sick. This is called colonization. When people in hospitals and nursing homes are colonized, *C. auris* can spread from their bodies and can get on other people or nearby objects, allowing the fungus to spread to people around them.

CDC recommends testing patients who may have come in contact with *C. auris* to see if they are carrying the fungus. This allows healthcare providers to know who is carrying the fungus and take steps to prevent it from spreading to other people.

### What does it mean to be colonized?

Colonization, or being colonized with *C. auris*, means that a person has the fungus somewhere on their body but does not have an infection or symptoms of infection. A simple test can be done to see who is colonized with *C. auris*. People who are colonized with *C. auris* may not know and can pass the fungus to another person. People colonized with *C. auris* might later get sick from this fungus, so healthcare providers should consider taking extra steps to prevent infection.



To reduce spread to other patients, healthcare personnel should use precautions when caring for patients with *C. auris*, including:

- Placing the patient in a different room.
- Having healthcare personnel or other caregivers wear gowns and gloves during patient care.
- Cleaning the room with different products than usual.
- Having family members and healthcare personnel clean their hands thoroughly after visiting the patient. The patient may also be encouraged to wash their hands often.
- Performing another test later to see if the fungus is still there.

### What can I do to help keep *C. auris* from spreading?

Patients and family members should clean their hands thoroughly before and after touching each other or the area around the patient, particularly when leaving a patient's room.

Although the risk of *C. auris* infection in otherwise healthy people is low, patients and their family members should continue practicing good hand hygiene when returning home. If family members are caring for patients with *C. auris*, they should consider wearing disposable gloves when providing certain types of care like changing the dressing on wounds and helping the patient bathe.

If you are colonized with *C. auris*, tell your healthcare providers when visiting healthcare offices and when admitted to hospitals and nursing homes.

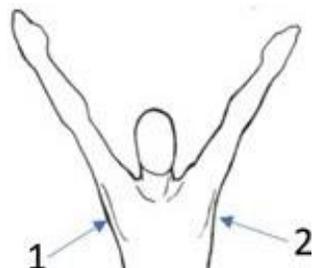


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Control and Prevention

Want to learn more?

[www.cdc.gov/fungal/candida-auris](https://www.cdc.gov/fungal/candida-auris)

## Instructions for patient swab collection for *Candida auris* colonization screening



1. Use 8D ESwab™ Collection and Transport System for collection. Open the package by grasping the plastic at the opposite end from the soft tip. Remove the tube from the packaging. Pull the swab from its package.

2. Rub the soft end of the collection swab across the indicated site 3 to 5 times. Rub both sides of the swab tip *over* the left axilla skin surface and then the right targeting the crease. With the same swab, rub both sides of the swab tip *over* the left groin skin surface and then the right targeting the crease.

3. Remove the cap from the swab collection tube, then place the soft end of the collection swab into the tube. **DO NOT** pour the liquid out of the tube. Snap off the end of the swab at the marked line. Screw on the tube cap and Parafilm.

4. Write specimen information on the tube label. Place tube into the biohazard bag with absorbent paper. Place test request form in the outer pocket of the bag.

5. Seal the bag and ship immediately to Maryland Regional Lab as a Biological Substance, Category 8. Swabs can be stored for no more than 4 days after collection.

# NOTICE

## This patient requires **transmission-based precautions** during all inpatient stays

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This patient has been colonized or infected with *Candida auris*. *C. auris* is a difficult to detect yeast that can cause life-threatening infections and has caused long-lasting outbreaks in healthcare facilities (HCFs). It is easily spread, hard to remove from the environment, and often very resistant to antifungal medications.

Implementation of Transmission-Based Precautions is necessary to prevent transmission, which can lead to outbreaks. Contact Precautions should be implemented by acute care facilities as the primary option. For long-term management of these patients in nursing homes, Enhanced Barrier Precautions should be implemented unless the resident meets criteria for more strict transmission-based precautions.

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### Information on Precautions and Recommendations:

- This patient should be placed in a **private room**, if possible.
- Healthcare personnel interacting with patients on Contact Precautions, or their environment, are required to wear **a gown and gloves**, donning their PPE upon room entry, and properly discarding before exiting (conventional capacity for PPE).
- In nursing home settings, when caring for patients on [Enhanced Barrier Precautions](#), healthcare personnel should wear gown and gloves during high contact resident care activities.
- Healthcare personnel should conduct diligent **hand hygiene** during and after contact with a *C. auris*-positive patient or their environment; ensure **alcohol-based hand rub** is readily available. Refer to our [alcohol-based hand rub memo](#) for more information.
- **Disposable or dedicated patient-care equipment** should be used whenever possible.
- All **disinfection** should be completed with an Environmental Protection Agency (**EPA**) **registered disinfectant effective against *Candida auris* (List P)**. Cleaning and disinfection should be performed according to the manufacturer's instructions for use. Examples include:
  - Shared **equipment** (e.g., stethoscopes, X-ray machines, scales, ventilators) **should be thoroughly cleaned and disinfected after contact** with this patient.
  - The **patient's room** should be cleaned/disinfected daily and terminally upon discharge.
  - **Transport vehicles/equipment** should be terminally cleaned/disinfected after use.
- Ensure written and verbal **communication** of the need for transmission-based precautions for all intra- and inter- facility transfers. Send a physical copy of this coversheet with the patient upon transfer.
- Refer to additional information from CDC on [C. auris infection prevention and control](#).

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Containment of drug-resistant organisms including *C. auris* is a joint effort between healthcare facilities and public health partners. If your facility is not already working with your local health department or the Pennsylvania Department of Health to coordinate activities for *C. auris* prevention, please contact your local health department or call **1-877-PA-HEALTH**.

# NOTICE

## This patient requires preemptive **contact precautions** while lab results are **pending**

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This patient has been screened for *Candida auris* and is pending results. *C. auris* is a difficult to detect yeast that can cause life-threatening infections and has caused long-lasting outbreaks in healthcare facilities (HCFs). It is easily spread, hard to remove from the environment, and often very resistant to antifungal medications.

This patient may have been screened in cooperation with public health because they were epidemiologically linked to a positive *C. auris* case or as part of surveillance testing. You will be notified by public health officials of the results of the screening and additional guidance will be provided at that time.

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### Information on Contact Precautions and Recommendations:

- This patient should be placed in a **private room**, if possible.
  - Healthcare personnel interacting with patients on Contact Precautions, or their environment, are required to wear **a gown and gloves**, donning their PPE upon room entry, and properly discarding before exiting (conventional capacity for PPE).
  - Healthcare personnel should conduct diligent **hand hygiene** during and after contact with a *C. auris*-positive patient or their environment; ensure **alcohol-based hand rub** is readily available. Refer to our [alcohol-based hand rub memo](#) for more information.
  - **Disposable or dedicated patient-care equipment** should be used whenever possible.
  - All **disinfection** should be completed with an Environmental Protection Agency (**EPA**) **registered disinfectant effective against *Candida auris* (List P)**. If these disinfectants are not available, products from [List K](#) may be substituted. Cleaning and disinfection should be performed according to the manufacturer's instructions for use. Examples include:
    - Shared **equipment** (e.g., stethoscopes, X-ray machines, scales, ventilators) **should be thoroughly cleaned and disinfected after contact** with this patient.
    - The **patient's room** should be cleaned/disinfected daily and terminally upon discharge; and
    - **Transport vehicles/equipment** should be terminally cleaned/disinfected after use.
  - Ensure written and verbal **communication** of the need for contact precautions for all intra- and inter-facility transfers. Send a physical copy of this coversheet with the patient upon transfer.
  - Refer to additional information from CDC on [C. auris infection prevention and control](#).
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Containment of drug-resistant organisms including *C. auris* is a joint effort between healthcare facilities and public health partners. If your facility is not already working with your local health department or the Pennsylvania Department of Health to coordinate activities for *C. auris* prevention, please contact your local health department or call **1-877-PA-HEALTH**.

## Common Misidentifications of *Candida auris* by Laboratory Method

Identification Method	Organism <i>C. auris</i> can be misidentified as
Vitek 2 YST*	<i>Candida haemulonii</i> <i>Candida duobushaemulonii</i>
API 20C	<i>Rhodotorula glutinis</i> (characteristic red color not present) <i>Candida sake</i>
API ID 32C	<i>Candida intermedia</i> <i>Candida sake</i> <i>Saccharomyces kluyveri</i>
BD Phoenix yeast identification system	<i>Candida haemulonii</i> <i>Candida catenulata</i>
MicroScan	<i>Candida famata</i> <i>Candida guilliermondii</i> ** <i>Candida lusitaniae</i> ** <i>Candida parapsilosis</i> **

\*There have been reports of *C. auris* being misidentified as *Candida lusitaniae* and *Candida famata* on VITEK 2. A confirmatory test such as cornmeal agar may be warranted for these species.

\*\**C. guilliermondii*, *C. lusitaniae*, and *C. parapsilosis* generally make pseudohyphae on cornmeal agar. If hyphae or pseudohyphae are not present on cornmeal agar, this should raise suspicion for *C. auris* as *C. auris* typically does not make hyphae or pseudohyphae. However, some *C. auris* isolates have formed hyphae or pseudohyphae. Therefore, it would be prudent to consider any *C. guilliermondii*, *C. lusitaniae*, and *C. parapsilosis* isolates identified on MicroScan or any *C. parapsilosis* isolates identified on RapID Yeast Plus as possible *C. auris* isolates and forward them for further identification.

This table is adapted from information provided by CDC:

<https://www.cdc.gov/fungal/candida-auris/identification.html>. Please note that this list is based on current knowledge about *C. auris* misidentification. It may change from time to time as we learn more about misidentification of *C. auris*.

The purpose of this communication is to promote use of alcohol-based hand rubs (ABHR) by addressing misconceptions regarding the safety, use, and efficacy of ABHR in healthcare facilities. The memo represents a joint effort by the Deputate of Quality Assurance and the Bureau of Epidemiology.

### **USE AND EFFICACY:**

Did you know that healthcare providers might need to clean their hands as many as 100 times per 12-hour shift? On average, healthcare providers clean their hands less than half of the times they should. Clean your hands in these key moments: [DOH Hand Hygiene Make Your Intention Prevention Poster](#). Read more about hand hygiene here: [CDC Hand Hygiene](#); [WHO World Hand Hygiene Campaign](#).

Research has shown that ABHR is the most effective method for hand hygiene in healthcare settings and that it is also the least drying and least likely to lead to skin breakdown in healthcare workers. Therefore, ABHR is the preferred method for routine hand hygiene in healthcare settings.

### **AVAILABILITY IN HEALTHCARE FACILITIES:**

It is important to ensure that the ABHR dispensers are widely available and easily accessible at the points of care. Make ABHR available to staff where and when they need it!

- Place ABHR dispensers at the entrance to each patient room. Ideally, dispensers should be in a place that is easily accessible to healthcare workers. In multi-patient rooms, consider placing dispensers in a location that can also be easily accessed between patients, as well as at the entrance to the rooms.
- In secured units, place ABHR dispensers near the nurses' station. Provide individual-sized containers of ABHR for staff to carry in an otherwise empty pocket or clipped onto their person. Using these requires careful adherence to proper procedure (see question on next page); promote a culture of hand hygiene in your locked units. Train staff on how to properly use individual-sized containers and document demonstrated competency.

### **SAFETY:**

- **Fire hazard:** Facilities that receive Medicaid or Medicare reimbursement must follow the Life Safety Code regarding location and installation of ABHR dispensers. More information about fire safety and the Life Safety Code is available at [CDC Fire Safety](#). If you are having difficulty determining where to install ABHR dispensers in your facility per the requirements of the Life Safety Code, you may contact your local Division of Safety Inspection Field Office ([DOH Life Safety Office Contacts](#)).
- **Slip and fall hazard:** ABHR dispensers should have a tray or other mechanism to stop excess product from going on the floor. Dispensers must be kept in good working order. Don't leave ABHR bottles on handrails.
- **Ingestion hazard:** ABHR dispensers should only dispense the amount of product required for proper use and should not dispense more than once per activation. See "Commonly Asked Questions" for more information.
- **Refilling containers:** Refilling or "topping off" containers of ABHR is not recommended due to the risk of contamination, reduced effectiveness from the evaporation of alcohol, and irritant effects from mixing formulations. Only refill ABHR dispensers in accordance with manufacturer's guidance.

### **POLICY:**

Review and update your infection control policies annually and as needed and perform monthly audits of hand hygiene to monitor compliance and provide feedback to staff. If the information provided in this memo is not congruent with current practice at your facility, we encourage you to take steps to improve infection control practices by updating policies and providing education to staff.

For questions related to this information, please contact your local Department of Health field office.

## COMMONLY ASKED QUESTIONS ABOUT ABHR:

### Q. Will overuse of ABHRs cause resistance?

A. No. [According to the World Health Organization](#), there is no reported resistance to ABHR in any microorganism. Appropriate use of ABHR can reduce the spread of antibiotic resistant bacteria.

### Q. How many times can staff use ABHRs?

A. There is no limit to the number of times in a row that ABHR can be used. If hands feel sticky or uncomfortable, hand washing may be used intermittently for comfort of the healthcare worker.

### Q. How do we protect vulnerable patients who might ingest ABHR?

A. Infections are hazardous too! A facility will need to determine which patients are at risk for harm from ABHR; however, keeping ABHR readily accessible to staff is important to prevent the spread of infection. In secured units, one option is for staff to carry small containers of ABHR in their pocket or clipped onto their person.

### Q. How can we assure that staff are using pocket or clip-on individual containers of ABHR properly?

A. ABHR kept in a pocket or clipped onto a healthcare worker will be contaminated. However, the product inside the container is still effective. Using the proper steps to access these types of ABHR containers is critical.

1. Pull pocket ABHR out of pocket and dispense adequate gel or foam into one hand.
2. Place bottle back in pocket with other hand before performing hand rub.
3. Perform hand rub, thoroughly coating all surfaces of both hands.
4. Go directly to patient without touching anything else or re-entering hands into pockets.

Staff using these types of ABHR containers should be initially trained and observed doing the procedure to assure competency. Routine observations should occur monthly to assure staff are performing steps properly.

### Q. Are there certain situations in which hand washing should be used instead of ABHR?

A. Yes. Hand washing should be performed in the following situations:

- If hands are visibly soiled.
- Before eating or after using the restroom.
- After caring for a person with known or suspected infectious diarrhea; and
- After known or suspected exposure to certain organisms (e.g., norovirus, *C. difficile* outbreaks).  
For patients with *C. difficile*, always wear gloves during care. Learn more about hand hygiene and *C. difficile* by watching and sharing this video with free continuing education available at [CDC Hand Hygiene Training](#).

### Q. I have a staff member who reports he/she is allergic to ABHR, what can I do?

A. There are two types of skin reactions associated with hand hygiene: irritant contact dermatitis and allergic contact dermatitis. Allergic contact dermatitis attributable to ABHR is very rare. Healthcare workers with skin complaints related to ABHR should be referred for evaluation by occupational health or a medical provider.

In winter months, dry skin is common in healthcare workers and can lead to irritant contact dermatitis irrespective of ABHR use. In fact, ABHRs will result in less drying than hand washing. We suggest making lotion that is compatible with gloves and ABHR available so that staff will be less likely to have skin irritation and be more likely to comply with ABHR use. Staff should not be permitted to use their own lotion in the clinical setting. Other strategies for skin health will also improve winter irritation: using a heavy cream and cotton gloves while sleeping, wearing gloves when outside, and frequent use of lotion during waking hours.