

Candida auris

Infection Prevention Steps for Healthcare Facilities to Take to Control the Spread of *C. auris*



Virginia Department of Health

October 2023

Infection Prevention Checklist

The following information is provided to help you take proactive steps when a case of *Candida auris* (*C. auris*) has been identified in your facility.

1. Understand why this organism is important and a public health concern (page 3)
2. Notify your local health department. Work together to collect information about the patient/resident's risk factors and determine next steps to prevent the spread of *C. auris* within the facility. (page 5)
3. Place the patient/resident in an appropriate room (page 6)
4. Focus on the infection prevention basics! Hand hygiene is an essential piece of the infection prevention puzzle. (page 8)
5. Place the patient/resident on appropriate Transmission-Based Precautions or Enhanced Barrier Precautions and monitor compliance with personal protective equipment use (pages 9-10)
6. Environmental cleaning is an important step in preventing transmission. Review your cleaning and disinfection protocols, including if disinfectant products in use are effective against *C. auris* (pages 12-13)
7. Educate patients/residents and family members (page 14)
8. Communicate the patient/resident's *C. auris* status upon transfer (page 6)
9. Communicate the patient/resident's *C. auris* status to outpatient providers (pages 15-16)
10. Ensure case management staff, admissions coordinators, or those in similar positions are educated about *C. auris* (page 17)
11. Consult additional resources/references as needed (pages 18-19)

Why We Are Concerned About *C. auris*

It is becoming more common

- It was discovered in 2009 and has spread rapidly throughout the United States.
- *C. auris* cases are on the rise. Every region of the state has identified persons infected or colonized with *C. auris*.
- Monthly *C. auris* data reports are available on the Virginia Department of Health website: <https://www.vdh.virginia.gov/haiar/diseases-organisms/candida-auris/> (see *Impact in Virginia* section)

Easy to transmit from person to person, especially in the healthcare setting

- *C. auris* can be carried on the skin without signs of infection (colonization) and cause spread to others.
- *C. auris* has caused outbreaks in healthcare facilities.
- It spreads through contact with affected patients, contaminated surfaces and shared medical equipment.
- *Candida auris* can be persistent in the environment and live on surfaces for several weeks.
- Some commonly used healthcare disinfectants do not kill *C. auris*.

Can be misidentified

- It can be difficult to identify. *C. auris* can be misidentified in routine lab testing as other types of fungi and requires specialized technology to identify. This can cause a delay in appropriate treatment and containment measures.

Can be hard to treat

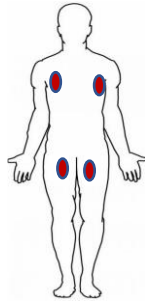
- It is often multidrug-resistant including some strains that are resistant to all current antifungal drugs.

Can cause serious infections

- *C. auris* has been identified in wound, blood, urine and respiratory cultures. Patients who have longer length of stay in healthcare, invasive medical devices, or have received multiple courses of antibiotics or antifungal medications are at greater risk.
- More than one in three patients who develop an invasive *C. auris* infection will die.

EARLY DETECTION AND INFECTION PREVENTION CAN LIMIT THE SPREAD OF *C. AURIS*

***C. auris* Colonization**



Candida auris colonization is observed in the anterior nares, and the axilla/groin area. Colonization can occur in other body sites such as wounds or urine. During a colonization screening, specimens are collected from both axilla and both groin areas.

Colonized patients/residents can be a source of spread by shedding the fungus to areas they have close physical contact with. Spread of *C. auris* can occur as healthcare workers come into contact with these areas that have not been appropriately cleaned/disinfected, if personal protective equipment (PPE) is used improperly, or if appropriate hand hygiene practices are not followed.

CDC does not recommend routine reassessments for *C. auris* colonization.

- *C. auris* colonization is thought to persist for a prolonged time frame, some as long as 2 years and may persist longer. More than 50% of patients who had a positive *C. auris* swab, followed by one or more negative screenings, retested positive.
- At this time there is no specific interventions known to reduce or eliminate *C. auris* colonization.

Virginia Department of Health Response

1. **Gather information** about the patient/resident. The health department will need to know details of the patient/resident's medical history and healthcare facility stay which may include:
 - Admission information (Date; admitted from another facility? If so, which one?)
 - Placement in a private vs semi-private room?
 - Was the patient/resident on any type of transmission-based precautions? If so, when?
 - Movement through your facility during their stay
 - Discharge information (Date; If discharged – where?)
 - General medical history questions
 - Does the patient/resident have any indwelling medical devices?

This information will help determine risk factors for spread within the facility.

2. Discuss plans for an **onsite visit**, including an infection prevention assessment.
 - An onsite visit is typically a part of the VDH investigation to help the facility respond to the case using the best infection prevention practices and decrease risk to other patients/residents.
3. Discuss plans for **colonization screening**
 - The health department may request screening of close contacts (e.g., roommates, shared bathrooms) to determine if *C. auris* has spread to other patients/residents in the facility.
 - VDH may also recommend to screen a larger number of patients/residents to determine the prevalence of the organism on the unit or in the facility.
 - A patient/resident who spent time in your facility but was identified to have *C. auris* at another facility may still impact your patients/residents and require an investigation as well as screening of close contacts.

If you do not know how to reach your local health department, find your nearest location at this website: <https://www.vdh.virginia.gov/health-department-locator/>

Patient/Resident Placement and Movement

Whenever possible, a single room is the preferred placement for a patient/resident with *C. auris*.

In long-term care, single-person rooms (if available) should be prioritized for residents who have acute infection with a communicable disease (such as influenza, SARS-CoV-2) or for residents placed on Contact Precautions for presence of acute diarrhea, draining wounds, or other sites of secretions or excretions that are unable to be covered or contained. In nursing homes, residents on Enhanced Barrier Precautions may share rooms with other residents; however, facilities with capacity to offer single-person rooms or create roommate pairs based on MDRO colonization may choose to do so. Further, if there are multiple residents with the same MDRO in the facility, you may consider cohorting them in a room with a private bathroom. During an outbreak, your local health department may make further recommendations on resident placement in your facility.

When patients/residents are placed in shared rooms, facilities must implement strategies to help minimize transmission of pathogens between roommates including:

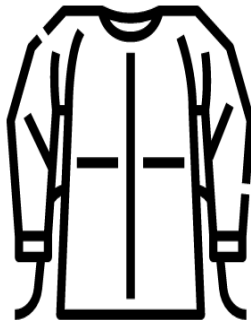
- maintaining spatial separation of at least 3 feet between beds to reduce opportunities for inadvertent sharing of items between the roommates
- use of privacy curtains to limit direct contact
- cleaning and disinfecting any shared reusable equipment between the roommates (or dedicating equipment to a single person)
- cleaning and disinfecting environmental surfaces on a more frequent schedule
- changing personal protective equipment (if worn) and performing hand hygiene when switching care from one roommate to another

In an outbreak setting, if possible, consider dedicating staff to patients/residents with *C. auris* for the shift.

When transferring a patient/resident to another healthcare facility, the patient/resident's history of *C. auris* (colonization or infection) should be clearly communicated to the receiving facility.

How Do We Contain the Spread?

Back to the Basics of Infection Prevention



Hand Hygiene



Supplies

- Make sure all supplies for hand hygiene are available and easily accessible.
 - Are hand sanitizer products in date?
 - Who is responsible for filling soap and alcohol-based hand sanitizer (ABHS) dispensers?
 - Are ABHS dispensers located in convenient locations for patient/resident care?
 - Are hand washing sinks are clear of obstructions? Keep patient/resident care items out of the splash zone (~3 ft on each side of the sink)

Training

- Have all staff received hand hygiene inservices which includes observation of technique (competency) in the past year?
 - If yes, a reminder of proper technique through posters, roving inservices would be beneficial.
 - If no, schedule an inservice for all staff with competency as soon as possible.

Auditing

- Conduct hand hygiene audits on all shifts for
 - **Proper technique** - use the correct product, cover all surfaces of the hand including the thumbs.
 - **Proper time** – if soap and water, 15-20 seconds; if hand rub, until product evaporates
 - **Proper opportunity** - before touching the patient/resident, after contact with patient/resident or surroundings, before donning PPE, after contact with body fluids, before assisting with an aseptic procedure, and upon exiting the room.
- Just-in-time teaching: Correct the action when you see it. Gentle coaching is an effective way to change poor practices.
- Share audit results on a routine basis with frontline staff and facility leadership.

Transmission-Based Precautions and Enhanced Barrier Precautions



Type of Precautions

- All patients/residents who have been identified to have *Candida auris*, whether colonized or an active infection, need to be placed on appropriate precautions.
 - **Nursing homes:** Enhanced Barrier Precautions (gown and gloves for high-contact resident care activities) or Contact Precautions (gown and gloves upon room entry)
 - Contact Precautions: if presence of acute diarrhea, draining wounds, or other sites of secretions or excretions that are unable to be covered or contained; during outbreaks
 - Enhanced Barrier Precautions (EBP) for all other situations (gown and gloves for high-contact resident care activities)
 - See the *Educational Resources and References* section for resources to aid with implementation of EBP
 - **Other settings:** Contact Precautions (gown and gloves upon room entry)
 - Dedicate non-critical patient/resident care equipment (e.g., stethoscope, blood pressure cuff) to the room if feasible

Supplies

- Ensure you have:
 - A designated donning/doffing area
 - All PPE supplies available
 - Appropriate signage is in place on the door that directs healthcare workers and visitors about what they need to do when entering the room

Training

- Have staff received an annual inservice on donning and doffing?
 - If so, a reminder of proper technique may be useful.
 - All staff should receive inservice on donning and doffing of PPE which includes direct observation of technique (competency) as soon as possible if not done annually.

Auditing

- Audits of PPE use should be done on all shifts. Observations should include:
 - Does hand hygiene occur prior to donning?
 - Is PPE donned prior to entering the room
 - Is the right PPE used?
 - Is the sequence of PPE done correctly?
 - Does the healthcare worker (HCW) don immediately prior to entering the room and does not enter any other areas or perform other job task outside the room in PPE?
 - Does doffing occur inside the room?
 - Does hand hygiene occur after PPE has been removed?

Duration of Precautions

- CDC recommends continuing Contact Precautions or EBP for the entire duration of the healthcare encounter.
 - In a nursing home, a resident may be de-escalated from Contact Precautions to EBP when clinically appropriate (e.g., when a draining wound that is positive for *C. auris* heals such that it is able to be covered/contained)

Environmental Cleaning and Disinfection



Many common disinfectants do not work, including numerous products with fungal and *Candida albicans* claims. Check all products currently in use to determine if they are effective against *C. auris*.

Products that are effective against *C. auris* – EPA List P: <https://www.epa.gov/pesticide-registration/list-p-antimicrobial-products-registered-epa-claims-against-candida-auris>

Actions for Environmental Cleaning

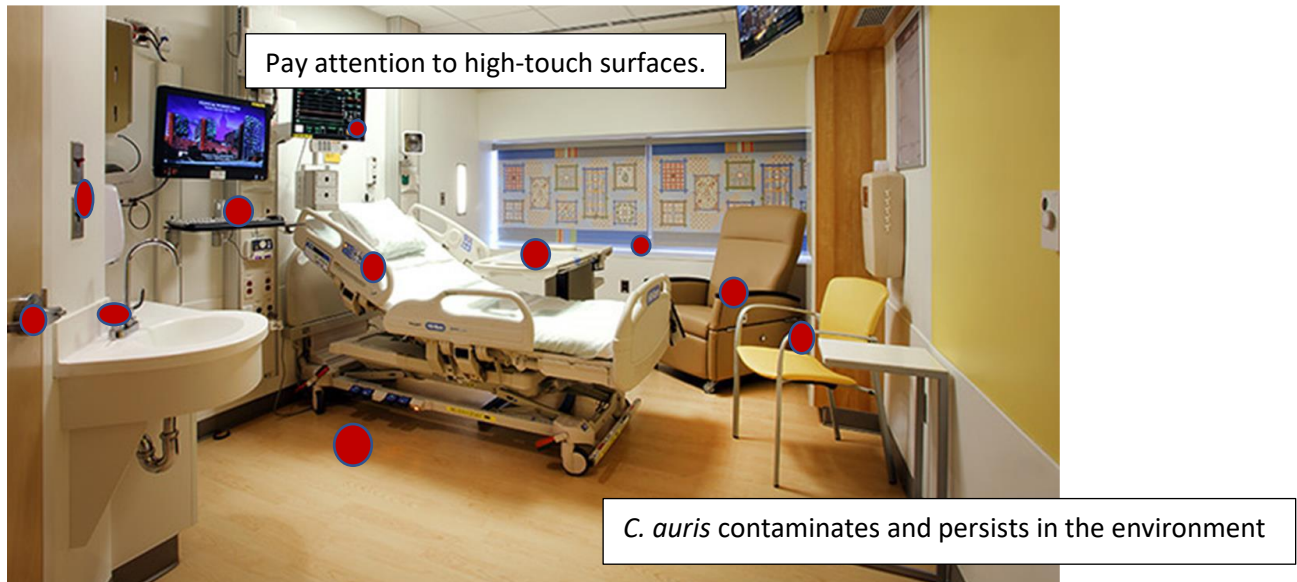
1. Inservice for all staff on cleaning and disinfection
 - a. Do staff understand the difference between cleaning and disinfection
 - b. Do staff know the contact time for all products they use?
2. Establish clear responsibilities for who cleans what and how often it must be cleaned. This should distinguish between what the Environmental Services (EVS) department cleans and what nursing or other departments clean. See next page for two examples.
3. Rounding with EVS director and conduct audits of environmental cleaning. Share audit results with frontline staff and facility leadership.
 - a. Is the room cleaned systematically - clean to dirty?
 - b. Are cleaning rags replaced when moving to a clean area?
 - c. Do EVS staff wear PPE when cleaning in an isolation room?
 - d. Do EVS staff perform hand hygiene appropriately?
 - e. If an isolation room is cleaned, is the mop head replaced and clean water placed in the bucket?
 - f. If the room is double occupancy, cleaning should occur as if each bed were a different room, including changing clean cloths, cleaning equipment, and replacing mop heads between each bed area
4. Do you have a method to determine between clean and dirty equipment?
 - a. If not in place, establish protocol
 - b. If protocol in place, is it being followed? Consistently on all shifts? Can staff speak to the protocol if questioned?

Example of Cleaning Responsibility Grid

Item	Cleaning Frequency	Responsible Discipline	Disinfectant used and contact time
Floors	Once per day	EVS	
Hand rails	Once per day	EVS	
Isolation carts	Once per shift	Nursing	
Door handles	Once per day	EVS	
Medication dispense system	Once per shift	Nursing	
Medication carts	Once per shift	Nursing	
Privacy curtains	Terminal clean or when visibly soiled	EVS	
Keyboards	Once per shift	Staff member using the computer or if taken into a patient/resident's room	
Shared medical equipment (scales, lift equipment, BP cuffs, gait belts, exercise bands etc)	After each use	Staff member using equipment	

An editable version of an environmental cleaning and disinfection responsibilities chart is available on the VDH website:

https://www.vdh.virginia.gov/content/uploads/sites/174/2023/10/Env-Cleaning-Responsibilities-Chart_FINAL.xlsx



High-touch surfaces are any area where the patient/resident or the staff would have frequent contact with during daily activities.

Use a risk assessment approach in your facility to identify high-touch surfaces. Each area of your facility's with specific high touch areas should be included in cleaning. Patient/resident rooms would include surfaces such as bed controls, bed rails, light switches, bedside tables while the nurses station would include phones and computer keyboards.

Add all high-touch surfaces to your cleaning responsibility grid and review with staff.

Patient/Resident Notification and Education

Ensure that the patient/resident (or their medical decision maker, when appropriate) is aware of the *Candida auris* diagnosis.

Emphasize the importance of informing other healthcare providers of their history of *Candida auris* so that interventions can be implemented to prevent spread in the healthcare environment.

One example of a patient-focused fact sheet that explains *C. auris* colonization is available from CDC: https://www.cdc.gov/fungal/candida-auris/pdf/Candida_auris_Colonization_H.pdf

When *C. auris* screening is recommended, healthcare workers will have to explain to the patient/resident why they are being tested and obtain consent. One example of a patient-focused fact sheet that explains *C. auris* testing is available from CDC: https://www.cdc.gov/fungal/candida-auris/pdf/C_auris_Patient_Testing_H.pdf

VDH also has an educational brochure for patients/residents about living with *C. auris*:

https://www.vdh.virginia.gov/content/uploads/sites/174/2023/09/patients-with-Candida-auris_trifold_final-printing.pdf

When a patient/resident in your facility has been identified to have *C. auris* colonization or infection, please communicate that finding with all outside providers such as dialysis, wound care, and physician offices. The following two pages offers a sample letter that you may fax or send that describes *C. auris* and the steps they can take to prevent spread in the outpatient setting.

Date _____

Dear _____ (Provider Name),

_____ (name) (XX/XX/XXXX) (DOB), a patient/resident of _____ (name of facility) has tested positive for *Candida auris* through a clinical culture or a surveillance swab. The Virginia Department of Health wants to be sure you are aware of the patient's status and share steps to take while providing healthcare to this person.

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- *C. auris* cases are on the rise. Every region of the state has identified persons infected or colonized with *C. auris*.
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Easy to transmit from person to person, especially in the healthcare setting

- *C. auris* can be carried on the skin without signs of infection (colonization) and be spread to others.
- *C. auris* has caused outbreaks in healthcare facilities.
- It spreads through contact with affected patients, contaminated surfaces, or shared medical equipment.
- *Candida auris* can be persistent in the environment and live on surfaces for several weeks.
- Some commonly used healthcare disinfectants do not kill *C. auris*.

Can be misidentified

- It can be difficult to identify. *C. auris* can be misidentified in routine lab testing as other types of fungi and requires specialized technology to identify. This can cause a delay in appropriate treatment and containment measures.

Can be hard to treat

- It is often multidrug-resistant including some strains that are resistant to all current antifungal drugs.

As a healthcare provider, focusing on the basics of infection prevention is the best step you can take to prevent the spread of *Candida auris*.

- **Hand hygiene** with soap and water or alcohol-based hand sanitizer is important when you have contact with the patient or surfaces that they have come in contact with.
- **Transmission-based precautions:** using contact precautions is recommended when providing direct care. This would include gown and gloves.
- **Cleaning/disinfection**
 - Cleaning and disinfection of any medical equipment or room where the patient has received care is very important since *C. auris* can live on surfaces for prolonged amounts of time.
 - Pay particular attention to high touch surfaces.
 - Many common disinfectants do not kill *C. auris*, including numerous products with fungal and *Candida albicans* claims. Check all products currently in use to determine if they are effective against *C. auris*.
 - Products that are effective against *C. auris* – EPA List P:
<https://www.epa.gov/pesticide-registration/list-p-antimicrobial-products-registered-epa-claims-against-candida-auris>
 - It is also important to adhere to the contact time on the label for products to have the needed time on the surface to effectively disinfect.

Candida auris, while concerning, should not affect the patient’s ability to be cared for in the outpatient setting. The risk for *C. auris* to others depends on their immune system, the presence of wounds, invasive devices and good infection prevention practices.

If you have questions, please contact your local health department at .

Attention: Case Management/Admission Screening

***Candida auris* is a multidrug-resistant organism and should not be confused with other types of fungal infections such as *Candida albicans*.**

It is becoming more common

- The Central Region of Virginia has noted a significant increase during 2022 in clinical cultures as well as surveillance screening results.

Easy to transmit from person to person, especially in the healthcare setting

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Can cause serious infections

- Patients who have longer length of stay in healthcare, invasive medical devices, or have received multiple courses of antibiotics or antifungal medications are at greater risk.
- More than one in three patients who develop an invasive *C. auris* infection will die.

A patient/resident who has an active infection or colonization requires [Enhanced Barrier Precautions](#) (applicable for nursing homes only, if certain criteria are met) or Contact Precautions. An admission with a history of *C. auris* should be discussed with your infection preventionist to determine best placement.

Educational Resources and References

CDC

- *C. auris* website: <https://www.cdc.gov/fungal/candida-auris/index.html>
 - *C. auris* fact sheet: https://www.cdc.gov/fungal/diseases/candidiasis/pdf/Candida_auris_508.pdf
 - General information about *C. auris*: <https://www.cdc.gov/fungal/candida-auris/candida-auris-qanda.html>
 - Infection prevention
 - IP recommendations: <https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html>
 - Fact sheet for Infection Preventionists: <https://www.cdc.gov/fungal/candida-auris/pdf/C-Auris-Infection-Factsheet-H.pdf>
 - Resources for patients
 - *C. auris* colonization: https://www.cdc.gov/fungal/candida-auris/pdf/Candida_auris_Colonization_H.pdf
 - *C. auris* testing: https://www.cdc.gov/fungal/candida-auris/pdf/C_auris_Patient_Testing_H.pdf
- Enhanced barrier precautions website (for nursing homes): <https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html>

Society for Healthcare Epidemiology of America (SHEA)

- Webinar - “Strategies to Reduce *Candida auris* Hospital Acquired Infections” (note: cost associated if not a SHEA member): <https://learningce.shea-online.org/content/strategies-to-reduce-candida-auris-hai-demand>

VDH

- *C. auris* website: <https://www.vdh.virginia.gov/haiar/diseases-organisms/candida-auris/>
 - Infection prevention
 - Acute care and long-term acute care facilities: <https://www.vdh.virginia.gov/content/uploads/sites/174/2023/04/Candida-auris-Infection-Prevention-in-Acute-Care-Long-Term-Acute-Care-Facilities.pdf>
 - Long-term care facilities: <https://www.vdh.virginia.gov/content/uploads/sites/174/2023/04/Candida-auris-Infection-Prevention-in-Long-Term-Care-Facilities.pdf>

- Patient education:
https://www.vdh.virginia.gov/content/uploads/sites/174/2023/09/patients-with-Candida-auris_trifold_final-printing.pdf
- *C. auris* fact sheet:
<https://www.vdh.virginia.gov/epidemiology/epidemiology-fact-sheets/candida-auris-infection/>
- *C. auris* Quick Guide for Nursing Home Infection Preventionists:
https://www.vdh.virginia.gov/content/uploads/sites/174/2023/09/Quick-Guide_Cauris_FINAL.pdf
- Enhanced barrier precautions resources (for nursing homes):
<https://www.vdh.virginia.gov/haiar/ip/ipc-by-healthcare-setting/>
- Rapid resources on *C. auris* (Essentials level, Foundations level, Testing):
<https://www.vdh.virginia.gov/haiar/education-training/infection-prevention-rapid-resources/>

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