



DATE: 6/9/2025

TO: Hospitals, Nursing Homes, Diagnostic and Treatment Centers,
Clinical Laboratories, Local Health Departments, Healthcare
Providers

FROM: Bureau of Healthcare Associated Infections

Health Advisory:

**Multidrug Resistant Organisms in New York State Healthcare Settings:
Increased Detection of Carbapenemase-producing Organisms and *Candida auris***

Please distribute immediately to:

Hospital Epidemiologists, Infection Preventionists, Case Managers/Care Coordinators,
Laboratory Directors, Infectious Disease Physicians, Critical Care Medicine Physicians,
Medical Directors, Dialysis Unit Directors, Nursing Directors, Risk Managers,
Administrators, Pharmacy Directors, and Directors of Environmental Services

Summary

- The New York State Department of Health (the Department) has identified increasing detections of *Candida auris* (*C. auris*) and carbapenem-resistant carbapenemase-producing organisms (CPOs) across the State.
- Cases and clusters of *C. auris* and CPOs are being detected outside of the recognized higher burden metropolitan New York City area.
- National data also suggests that hospital onset CPOs including carbapenem-resistant Enterobacterales (CRE), carbapenem-resistant *Acinetobacter* (CRAB) and carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) continue to increase post-pandemic in the US with more states and areas having their first cases and outbreaks. ^{1,2,3}
- Both *C. auris* and CPOs cause healthcare-associated infections with high mortality and have an increased potential to cause outbreaks in healthcare facilities. Infections caused by *C. auris*, and CPOs often do not respond to commonly used antimicrobial medications making them difficult to treat.
- Onsite investigations by the Department have identified a number of infection prevention and control concerns that would be expected to impact transmission of *C. auris*, CPOs, and other multidrug-resistant organisms.
- These include but are not limited to failure to perform appropriate and effective hand hygiene and environmental cleaning and disinfection; breaches in aseptic technique during wound care; failure to follow standard respiratory care

procedures for persons on mechanical ventilation; and incorrect or improper implementation of Enhanced Barrier Precautions in the long-term care setting.

- This advisory provides infection prevention and control recommendations and resources to control the spread of these emerging infections as well as background epidemiologic information.

Recommendations

The Department recommends that hospitals and skilled nursing facilities:

- Contact their [regional epidemiologist](#) when a patient is newly identified as having infection or asymptomatic colonization with *C. auris* or targeted CPOs (see Background section for a list of targeted organisms)
- Follow Centers for Disease Control and Prevention (CDC) organism-specific infection prevention and control guidelines available here:
 - [Infection Control Guidance: Candida auris | Candida auris \(C. auris\) | CDC](#)
 - For *C. auris* this includes cleaning healthcare surfaces and equipment with healthcare grade disinfectants from [EPA's Registered Antimicrobial Products Effective Against Candida auris \(List P\)](#)
 - [Carbapenem-resistant Enterobacterales \(CRE\) Infection Control | CRE | CDC](#)
- Review [Enhanced Barrier Precautions](#) practices [in skilled nursing facilities](#) and ensure compliance with hand hygiene, disposal of personal protective equipment between residents, and cleaning and disinfection of the healthcare environment.
- Ensure that clinical laboratories can identify *C. auris* and CPOs and that both the clinical team and infection preventionist where the case is located are notified immediately per local policy and practice.
- Consider asking the laboratory to speciate isolates from [non-sterile](#) sites when:
 - clinically indicated in the care of a patient.
 - a case of *C. auris* infection or colonization has been detected in a facility or unit, in order to detect additional patients colonized.
 - a patient has had an overnight stay in a healthcare facility outside the United States in the previous one year, especially if in a country with documented *C. auris* transmission. Visit [CDC: Tracking C. auris](#) for a map of countries with reported cases.
- Ensure robust interfacility communication.
 - Communicate a patient's *C. auris* and/or CPO status to receiving facilities to ensure appropriate infection prevention and control practices are proactively in place at time of transfer
 - Consider using the [CDC Inter-Facility Infection Control Transfer Form](#) to

assist in communicating *C. auris* and/or CPO history.

- Refer treating clinicians to [Infectious Disease Society of America 2024 Guidance on the Treatment of Antimicrobial-Resistant Gram-Negative Infections](#)
- Consider implementing admission screening programs for *C. auris* and/or CPOs especially for:
 - Ventilator care units in skilled nursing facilities
 - Intensive care units and/or respiratory care units in hospitals
 - Individuals reporting recent healthcare in an international setting or recognized high-burden area of the US. Visit [CDC: Tracking C. auris](#) for a map of reported cases.
 - Other populations in outbreak settings in consultation with the Department
- Monitor the CDC and [the Department's website](#) regularly for new information.

Background

The Department responds to reports of clusters, outbreaks, and cases of epidemiologically important organisms in healthcare settings. Wadsworth Center, the New York State (NYS) public health laboratory, is a CDC Antimicrobial Resistance (AR) Lab Network regional laboratory, providing isolate and surveillance specimen testing for novel and targeted multidrug-resistant organisms, including *C. auris* and CPOs. Recent AR Lab Network findings, coupled with ongoing infection prevention and control activities, have identified concerning changes to the epidemiology of *C. auris* and CPOs in NYS healthcare settings and changes in the population of patients at risk for these infections.

Candida auris (*C. auris*)

C. auris is an emerging multidrug-resistant yeast first identified in NYS in 2016. Since 2016, most NYS cases of *C. auris* have been identified in healthcare facilities in the New York City (NYC) metropolitan area. Recently, more than 20 *C. auris* cases have been identified outside the NYC metropolitan area, including in the central and western portions of NYS. As of April 25, 2025, 2,400 clinical cases and 3,144 persons colonized with *C. auris* have been identified and reported to the Department. Of the 3,144 colonized cases, 376 persons subsequently developed clinical infection with *C. auris*. Cases initially identified through screening (i.e., colonizations) who convert to clinical cases (i.e., develop infection) are counted in the totals of both screening and clinical cases.

As of April 10, 2025, 41 cases of fluconazole- and echinocandin-resistant *C. auris*, including 9 cases of pan-resistant *C. auris* (resistant to three classes of antifungal drugs: azoles, polyenes, and echinocandins), have been identified in NYS. Most persons with multidrug-resistant *C. auris* were previously identified cases who had subsequent *C. auris* cultures with increased drug resistance; this cohort typically had

exposures to antifungal drugs between initial identification and the identification of highly resistant strains.

Persons with *C. auris* can be colonized for an extended period of time. Across NYS, *C. auris* cases have been diagnosed at various healthcare facility types including hospitals, long term care facilities, and other healthcare settings. However, it is important to note that ventilator-capable skilled nursing homes have been disproportionately affected. This highlights the need for targeted preventative measures in these facilities. Time-space clusters have been identified often, suggesting preventable transmission within many hospitals and nursing homes.

Carbapenemase-producing Organisms (CPOs)

CPOs are bacteria that include carbapenem-resistant Enterobacterales (e.g., *Klebsiella* species, *Escherichia coli*, *Enterobacter* species, etc.), *Pseudomonas* species, and *Acinetobacter* species. These bacteria contain one or more genes that produce an enzyme (“carbapenemase”) that makes them resistant to many of the antibiotics commonly used to treat infections with these organisms. CPOs can also easily share genetic material encoding carbapenemases between bacteria, increasing the potential for rapid spread. The carbapenemase-producing genes of highest concern in NYS include: *bla*_{NDM}, *bla*_{VIM}, *bla*_{IMP}, *bla*_{OXA-48} in any organism and *bla*_{KPC} in *Pseudomonas* species and *Acinetobacter* species. Between 2017 and 2023, Department data showed increased incidence of CPOs, especially *bla*_{NDM} detections in carbapenem-resistant Enterobacterales (CRE), which primarily includes *Klebsiella pneumoniae* and *Escherichia coli* (*E. coli*) isolates. Between 2017 – 2018, AR Lab Network surveillance detected 67 bacterial isolates carrying *bla*_{NDM}, representing 5.2% of isolates tested. In 2023, AR Lab Network detections of *bla*_{NDM} from isolates rose to 520, representing 28.2% of isolates tested.

Risk factors

Traditionally, persons in NYS at higher risk of becoming infected or colonized with *C. auris* and CPOs have one or more of the following risk factors:

- International healthcare exposure(s)
- Multiple co-morbidities requiring higher levels of care
- Extended healthcare facility stays, including in intensive care and/or ventilator-capable skilled nursing facilities in the US, including in NYS
- Current or recent mechanical ventilation
- Insertion of a central venous catheter or other indwelling device
- Recent treatment with antimicrobial medications

However, individual cases and clusters of *C. auris* and CPOs have been identified among vulnerable populations not routinely affected, including:

- pediatric patients, including those in neonatal intensive care units,

- residents of skilled nursing facilities,
- patients receiving care in specialized burn intensive care units, and
- persons receiving post-acute care in sub-acute rehabilitation centers.

Recently, NYS residents with limited healthcare contact were impacted as part of a national investigation into artificial tear products contaminated with carbapenem-resistant *Pseudomonas aeruginosa* carrying the *bla_{VIM}* gene ⁴. Increasingly, cases have no readily identified exposures to international healthcare or contaminated products and have only received healthcare in the US and/or NYS healthcare facilities.

Geographic distribution

Cases and clusters of *C. auris* and CPOs have been detected outside of the recognized higher burden metropolitan NYC area. Key recent reports include:

- Over 80 cases of *Klebsiella pneumoniae* harboring the *bla_{NDM}* carbapenemase gene isolated from clinical specimens have been identified in western NY. This outbreak is evolving, and cases may be underreported and/or unrecognized. Preliminary analysis suggests that multiple healthcare facilities may be involved and that affected patients may not have traditional risk factors. To date, most cases have been detected from urine specimens.
- A multi-facility cluster of *C. auris* clade 3 (uncommon in NYS) in western NY. Many of these cases are not known to have a previous admission and/or healthcare encounters in a healthcare facility known to have *C. auris* and report no travel history to other areas of the country or internationally that are known to have a high burden of *C. auris*.

Communication

Colonization or infection with *C. auris* and/or CPOs should be communicated between transferring healthcare facilities. Ideal timing for communication is before transfer to facilitate proper infection prevention and control practices within the receiving facility, including nursing homes, end stage renal dialysis centers, and hospitals. Receiving facilities should understand the incidence and prevalence of *C. auris* and CPOs at referring facilities and consider implementing active screening practices to ensure new intakes are appropriately triaged.

To date, sustained transmission of echinocandin-resistant or pan-resistant *C. auris* isolates has not been identified in NYS. However, other states have reported transmission of pan-resistant strains that may have occurred within or between facilities.^{5,6}

Public Health Reporting

- Single cases or clusters of healthcare facility-associated *C. auris* and/or CPOs should be reported to the Department. Reporting requirements and instructions

for NYS healthcare facilities licensed under Article 28 of the Public Health Law are available on the Department's webpage at:
<http://www.health.ny.gov/professionals/diseases/reporting/communicable/infection/reporting.htm>

- Clinical laboratories should follow respective NYS and NYC laboratory reporting guidelines for CPOs and *C. auris*.
 - Isolate submission requirements are available at [Laboratory Reporting of Communicable Diseases](#)
 - Clinical isolate submission criteria are available on the Wadsworth Center webpage: [Wadsworth Center AR Lab Network Submission Guidance](#)
- Hospitals should report select healthcare associated infections per the [New York State Health Department Hospital-Acquired Infection Reporting Program](#) using the National Healthcare Safety Network.
- Cases identified by non-Article 28 healthcare settings should be reported to the [local health department](#) where the case resides.

Department regional epidemiologists are available for healthcare facility infection prevention and control practice consultation.

Western Regional Office	(585) 423-8097
Central New York Regional Office	(315) 477-8165
Metropolitan Area Regional Office	(914) 654-7149
Capital District Regional Office	(518) 474-1142
Central Office	(518) 474-1142

General questions or comments about this advisory can be sent to icp@health.ny.gov.

References/Additional resources:

¹ Prestel C, Anderson E, Forsberg K, et al. *Candida auris* Outbreak in a COVID-19 Specialty Care Unit— Florida, July–August 2020. MMWR Morb Mortal Wkly Rep 2021;70:56–57. DOI: <http://dx.doi.org/10.15585/mmwr.mm7002e3>

² Lyman M, Forsberg K, Sexton DJ, Chow NA, Lockhart SR, Jackson BR, Chiller T. Worsening Spread of *Candida auris* in the United States, 2019 to 2021. Ann Intern Med. 2023 Apr;176(4):489-495. doi: 10.7326/M22-3469. Epub 2023 Mar 21. PMID: 36940442; PMCID: PMC11307313.

³ CDC. Antimicrobial Resistance Threats in the United States, 2021-2022 <https://www.cdc.gov/antimicrobial-resistance/media/pdfs/antimicrobial-resistance-threats-update-2022-508.pdf>

⁴ Grossman MK, Rankin D, Maloney M, et al. Extensively Drug-Resistant *Pseudomonas aeruginosa* Outbreak Associated With Artificial Tears, *Clinical Infectious Diseases*, Volume 79, Issue 1, 15 July 2024, Pages 6–14, <https://doi.org/10.1093/cid/ciae052>

⁵ Lyman M, Forsberg K, Reuben J, et al. Notes from the Field: Transmission of Pan-Resistant and Echinocandin-Resistant *Candida auris* in Health Care Facilities — Texas and the District of Columbia, January–April 2021. MMWR Morb Mortal Wkly Rep 2021;70:1022–1023. DOI: <http://dx.doi.org/10.15585/mmwr.mm7029a2>

⁶ Ostrowsky B, Greenko J, Adams E, et al. *Candida auris* Isolates Resistant to Three Classes of Antifungal Medications — New York, 2019. MMWR Morb Mortal Wkly Rep 2020;69:6–9. DOI: <http://dx.doi.org/10.15585/mmwr.mm6901a2>

New York State Department of Health Get the Facts About *Candida auris* (*C. auris*): https://www.health.ny.gov/diseases/communicable/c_auris/

[Wadsworth Antimicrobial Resistance Lab Network Link](#)

CDC Patient Antimicrobial Resistance and Patient Safety Portal: <https://arpsp.cdc.gov/profile/antibiotic-resistance?tab=antibiotic-resistance>

Lee J, Sunny S, Nazarian E, Fornek M, Abdallah M, Episcopia B et al. Carbapenem-resistant *Klebsiella pneumoniae* in large public acute-care healthcare system, New

York, New York, USA, 2016-2022. Emerg Infect Dis. 2023 Oct [April 10, 2025]. <https://doi.org/10.3201/eid2910.230153>

CDC CRE Urgent Threat. Information for Facilities. <https://www.cdc.gov/healthcare-associated-infections/media/pdfs/CRE-handout-V7-508.pdf>. Accessed 3/7/2025

([Infectious Diseases Society of America 2024 Guidance on the Treatment of Antimicrobial-Resistant Gram-Negative Infections | Clinical Infectious Diseases | Oxford Academic](#))

APIC *Candida auris* Playbook: <https://apic.org/candida-auris/> Accessed 5/9/2025