

Health Advisory: Hospital Admission Screening for CPO and *C. auris*

Minnesota Department of Health, Thu, Aug 26 10:00 CDT 2021

Local and tribal health department: Please forward to **hospitals and emergency departments** in your jurisdiction.

Hospitals, clinics and other facilities: Please forward to infection preventionists, infectious disease physicians, emergency department staff, hospitalists, and any other staff involved in hospital admissions.

Health care providers:

- Screen patients on admission for carbapenemase-producing organisms (CPOs) and *Candida auris* based on the following information.
- Ask patients being admitted to the hospital if they have had the following exposures in the previous 12 months:
 - Overnight stay in a health care facility outside the United States or Canada.
 - Ambulatory surgery or hemodialysis outside of the United States or Canada.
 - Inpatient or skilled nursing facility stay in U.S. states with documented transmission of CPOs or *Candida auris* (facilities can determine level of transmission that triggers screening)
 - [Tracking CPOs \(https://arpsp.cdc.gov/profile/arln/cre\)](https://arpsp.cdc.gov/profile/arln/cre)
 - [Tracking Candida auris \(https://www.cdc.gov/fungal/candida-auris/tracking-c-auris.html\)](https://www.cdc.gov/fungal/candida-auris/tracking-c-auris.html)
- Contact the MDH Healthcare-Associated Infections and Antimicrobial Resistance Section (health.hai@state.mn.us) or the MDH-PHL (armmn@state.mn.us) to coordinate free testing.
- Test patients who have had one of these exposures for CPOs and *Candida auris*.
- Place patients on Contact Precautions until receiving a negative test result.
- Call MDH at 651-201-5414 or 877-676-5414 with questions or to discuss implementation of and laboratory confirmation of admission screening for CPO and *Candida auris*.

Background

Receipt of health care abroad or in states with documented transmission is a risk factor for patients to be colonized with carbapenemase-producing organisms (CPOs) and *Candida auris*. Both of these organisms can cause asymptomatic colonization in patients that can lead to transmission in health care facilities if the appropriate infection control measures are not taken. The second-ever case of *Candida auris* was recently identified in Minnesota, highlighting the need for routine admissions screening programs.

The Minnesota Department of Health (MDH) has updated recommendations for hospital-admission screening to identify patients colonized with carbapenemase-producing organisms (CPOs) and *Candida auris*. The MDH Public Health Lab (MDH-PHL) continues to offer **free** testing to support hospitals conducting admission screening. These organisms are not yet

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endemic in Minnesota. Efforts taken to detect CPOs and *C. auris* upon inpatient admission of high-risk patients will allow health care organizations to take early action to prevent nosocomial spread and to manage the risk of transmission to post-acute settings.

CPOs are highly antibiotic-resistant organisms that can cause infections that are difficult to treat, and in some cases, infections are resistant to all classes of available antibiotics. These organisms produce enzymes called carbapenemases, which break down carbapenems and other antibiotic drugs. The genes encoding carbapenemase production are easily transferred between bacteria, contributing to the spread of antibiotic-resistant infections. Prompt implementation of Contact Precautions and other infection control measures is essential to prevent patient-to-patient transmission of CPOs in health care settings.

C. auris is a globally emerging, difficult to identify, and often multidrug-resistant fungus that can cause serious invasive, difficult to treat infections. Only two cases of *C. auris* have been detected in Minnesota patients, yet case counts continue to rise elsewhere in the U.S. Because *C. auris* is able to contaminate patient care environments and survive on surfaces for weeks, these outbreaks have been difficult to control, even with enhanced infection control efforts. Several *C. auris* cases have been linked to receipt of health care in countries outside the U.S.

Individually, CPOs and *C. auris* can cause asymptomatic colonization in patients, which can later lead to infection and transmission of the organism to other patients within a health care facility if infection control measures are inadequate. Co-colonization of CPOs and *C. auris* has also been frequently observed. The CDC recognizes foreign health care exposure as a risk factor for colonization with both CPOs and *C. auris*. CDC recommends that U.S. hospitals conduct admission screening for CPO and *C. auris* colonization among patients with a recent history of receiving inpatient health care abroad.

On August 18, 2021, MDH sent a letter to Minnesota acute care infection preventionists to inform infection control programs of these recommendations and to increase awareness of the MDH Public Health Laboratory testing capacity. The letter can be accessed electronically: [MDH: CPO and *C. auris* Admission Screening Recommendations \(PDF\)](https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screenletter.pdf) (<https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screenletter.pdf>). Full details about MDH recommendations for admission screening are available at [MDH Hospital Admission Screening for CPO and *C. auris* Colonization](https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screen.html) (<https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screen.html>)

Specimen Collection and Laboratory Testing

The MDH-PHL is one of seven labs in [CDC's Antibiotic Resistance \(AR\) Laboratory Network](https://www.cdc.gov/drugresistance/solutions-initiative/ar-lab-network.html) (<https://www.cdc.gov/drugresistance/solutions-initiative/ar-lab-network.html>) with enhanced capacity to detect and respond to emerging antimicrobial-resistant threats. As the AR Lab Network Central Region Laboratory, MDH-PHL supports colonization testing for CPOs and *C. auris* by:

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- Providing health care facilities with specimen collection swabs and accompanying instructions
- Laboratory testing of specimens
- Reporting results quickly so that facilities can take action

CPO screening is conducted through rectal swab (Copan™ dual swab) testing by using the Cepheid® Xpert® Carba-R assay. This PCR assay is FDA-approved and detects the five most common carbapenemases (KPC, NDM, OXA-48, VIM, and IMP). Results are typically available the day of specimen receipt or in up to 2 business days. Rectal swabs positive by PCR are also cultured for organism identification and to perform relatedness studies in the event of transmission. *C. auris* screening is conducted by performing PCR testing of skin swab specimens. Body sites with the greatest yield for *C. auris* are bilateral axilla and groin. Specimens are collected by using one composite E-Swab™. Results are typically available the day of specimen receipt or in up to 2 business days. Positive specimens are cultured to obtain the *C. auris* organism for additional characterization.

For More Information

- [MDH Hospital Admission Screening for CPO and *C. auris* Colonization \(https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screen.html\)](https://www.health.state.mn.us/diseases/candidiasis/auris/hcp/screen.html)
- [CDC Health Advisory: New Carbapenem-Resistant Enterobacteriaceae Warrant Additional Action by Healthcare Provider: \(http://stacks.cdc.gov/view/cdc/25250\)](http://stacks.cdc.gov/view/cdc/25250)
- [CDC: Screening for Candida auris Colonization \(http://www.cdc.gov/fungal/candida-auris/c-auris-screening.html\)](http://www.cdc.gov/fungal/candida-auris/c-auris-screening.html)
- [CDC: Antibiotic Resistance and Patient Safety Portal: Carbapenem-Resistant Enterobacteriaceae \(https://arpsp.cdc.gov/profile/arln/cre\)](https://arpsp.cdc.gov/profile/arln/cre)
- [CDC: Tracking Candida auris \(https://www.cdc.gov/fungal/candida-auris/tracking-c-auris.html\)](https://www.cdc.gov/fungal/candida-auris/tracking-c-auris.html)

A copy of this HAN is available at: [MDH Health Alert Network \(http://www.health.state.mn.us/han\)](http://www.health.state.mn.us/han)

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.