Containment of *Candida auris*, Other Multidrug-resistant Organisms (MDRO), and SARS-CoV-2

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Presented via Webinar

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Objectives

• Provide updates on multidrug-resistant organism (MDRO) resurgence in the setting of COVID-19 in California

• Describe healthcare-associated MDRO

• Discuss basic infection control measures to contain MDRO and SARS-CoV-2 transmission in healthcare facilities
C. auris Cases Reported in CA through October 31, 2020 (N=636)
C. auris, COVID-19 Cases in CA through October 31, 2020 (N=636)
COVID-19-related Challenges in Healthcare Settings

• Staffing, PPE, alcohol-based hand sanitizer (ABHS), cleaning & disinfectant supply shortages
• Disruptions in routine practices and processes, including infection control
• Healthcare personnel (HCP) safety concerns
• We understand!
What Can We Do?

Early detection, infection control and public health-coordinated responses needed to contain spread

CDC Containment Strategy Guidelines (www.cdc.gov/HAI/Outbreaks/MDRO)
# Healthcare-associated MDRO*: What We Know

<table>
<thead>
<tr>
<th></th>
<th>C. auris</th>
<th>Acinetobacter</th>
<th>Other MDRO (e.g., CRE)</th>
<th>C. diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causes outbreaks in healthcare settings</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Leads to substantial morbidity and mortality</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Risk factors include frequent or extended healthcare exposure, antimicrobial use</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Patients can remain colonized for many months (no “clearance” recommendations)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Persistent in the healthcare environment</td>
<td>X</td>
<td>X</td>
<td>blank cell</td>
<td>blank cell</td>
</tr>
<tr>
<td>Difficult to identify</td>
<td>X</td>
<td>blank cell</td>
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</tr>
</tbody>
</table>

*Including *Clostridioides difficile* (*C. diff*); C. *auris*=Candida *auris*; CRE = carbapenem-resistant Enterobacteriaceae
# Healthcare-associated MDRO*: Containment, Infection Control Measures

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<tr>
<th>Good hand hygiene – ABHS preferred</th>
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<th>C. diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Soap &amp; water</td>
</tr>
</tbody>
</table>

| Contact precautions, single room if possible | X | X | X | X |

| Thorough environmental cleaning and disinfection | Use [C. auris/List K agent](www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants#candida-auris) | X | X | Use [List K agent](www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium) |

| Routine adherence monitoring | X | X | X | X |

| Cohorting of patients and healthcare personnel | X | X | X | X |

| Lab surveillance | X | X | X | X |

| Screening of high-risk contacts | X | X | X | Soap & water |

*Including *Clostridioides difficile* (*C. diff*); ABHS=alcohol-based hand sanitizer; *C. auris=Candida auris; CRE=carbapenem-resistant Enterobacteriaceae
# MDRO* & SARS-CoV-2: Containment, Infection Control Measures

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<td>X</td>
<td>X</td>
<td>X</td>
<td>Soap &amp; water</td>
</tr>
<tr>
<td>Contact precautions, single room if possible</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>+ respirator, eye protection</td>
</tr>
<tr>
<td>Routine adherence monitoring</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cohorting of patients and healthcare personnel</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<td>Lab surveillance</td>
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*Including Clostridioides difficile (C. diff); ABHS=alcohol-based hand sanitizer; C. auris=Candida auris; CRE=carbapenem-resistant Enterobacteriaceae
Infection Control Basics: Hand Hygiene

- Use ABHS over soap and water (unless visibly soiled hands/C. diff)
- Place ABHS dispensers in as many patient/resident care locations as possible
- More then just gel-in/gel-out; remember the 5 moments
- Gloves are **NOT** a substitute for HH; perform HH before donning PPE, after doffing
- Perform adherence monitoring

**WHO 5 Moments for Hand Hygiene**
(www.who.int/infection-prevention/campaigns/clean-hands/5moments/en/)
Infection Control Basics: PPE

- If no shortages, do not practice extended use or reuse of gowns* and gloves
- Everyone should adhere, including physicians and ancillary staff
- Double-gowning and -gloving are NOT recommended
- Don/Doff WITH hand hygiene
- Keep signage simple and consistent


CDC Contact Precautions Signage (PDF) (www.cdc.gov/infectioncontrol/pdf/contact-precautions-sign-P.pdf)
Infection Control Basics: Transmission-based Precautions

- Standard precautions +
- Keep it simple, clear signage
- By known organism
- Everyone should adhere, including physicians and ancillary staff
- Perform adherence monitoring

Cohorting patients
- By known organism, regardless of specimen source, infection or colonization

- **Contact**
  - C. auris, Carbapenem-resistant Enterobacteriaceae (CRE), *Pseudomonas*, *Acinetobacter*, MRSA, VRE
- **Contact + Enteric/Spore**
  - C. difficile, Norovirus
- **Droplet**
  - Influenza
- **Airborne**
  - Tuberculosis, Measles, Varicella
- **Contact + Respirator + Eye Protection**
  - COVID-19
Infection Control Basics: Environmental Cleaning

- High-touch surfaces, clean to dirty
- Read labels: know contact time
- Who cleans what: nursing vs EVS
- Adhesives, peeling and cracking surfaces
- Observe and monitor with fluorescent marker, ATP
- Training, re-training
- For *C. auris*, use [EPA-registered disinfectant](https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants#candida-auris) effective against *C. auris*; consider for prevention

[CDC Environmental Cleaning Procedures](https://www.cdc.gov/hai/prevent/resource-limited/cleaning-procedures.html)
**Communication**

- Key to preventing inter-facility transmission!
- Actively seek MDRO status of all admissions
- Flag medical record for future admissions
- Educate patients and family
- Establish a system between IP, nurse & case manager to ensure clear communication
- Use inter-facility transfer form

**Interfacility Transfer Communications Guide**
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/InterfacilityCommunication.aspx)
Key Messages

• MDRO transmission in healthcare facilities remains a challenge

• Implementation and reinforcement of basic infection control practices can:
  • Improve patient AND healthcare personnel health and safety
  • Reduce transmission of MDRO AND SARS-CoV-2

• Public health resources are available to support MDRO testing and containment
HEALTHCARE-ASSOCIATED INFECTIONS PROGRAM

Resources

- **CDPH C. auris Quicksheet** (PDF)
  (www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/C%20auris%20Quicksheet_Interim_070720_ADA.pdf)

- **CDPH CRE Quicksheet** (PDF)

- **CDPH Carbapenem-resistant *Pseudomonas and Acinetobacter* Quicksheet** (PDF)

- **CDPH Antimicrobial Resistance Resources**
  (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/AntimicrobialResistanceLandingPage.aspx)

- **CDPH Enhanced Standard Precautions** (PDF)
  (www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/Enhanced-Standard-Precautions.pdf)

- **CDPH Adherence Monitoring Tools**
  (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/MonitoringAdherenceToHCPracticesThatPreventInfection.aspx)

- **LACDPH Skilled Nursing Facilities**
  (publichealth.lacounty.gov/acd/ncorona2019/healthfacilities/snf/prevention/)

- **AR Lab Network Testing Resources**
  (www.cdc.gov/drugresistance/laboratories/AR-lab-network-testing-details.html)

- **CDC C. auris Identification**
  (www.cdc.gov/fungal/candida-auris/identification.html)

- **CDC Disinfectants Effective against *C. auris***
  (www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html#disinfection)
Acknowledgements

Local Public Health Partners
• Orange County Health Care Agency
• Los Angeles County Department of Public Health

Centers for Disease Control and Prevention
Antibiotic Awareness Week

CDPH Antimicrobial Stewardship Program Honor Roll
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/Honor_Roll.aspx)
Thank you!

Questions?

For more information, contact

HAIProgram@cdph.ca.gov