

California Department of Public Health (CDPH) Regional *Candida auris* Prevention and Response Strategy

BACKGROUND

Local health jurisdictions (LHJ) can use this document to complement the *C. auris* Quicksheet¹ to guide prevention, response, and mitigation activities and recommendations depending on local or regional epidemiology (phases).

DEFINITIONS

Screening refers to the collection of (typically) axilla/groin swabs to test for colonization in individuals exposed to or at risk of acquiring *C. auris*.

Individuals at high risk of *C. auris* acquisition include those:

- who are close healthcare contacts of a confirmed *C. auris* case, including roommates, those who shared a bathroom, and patients or residents on the same unit or in the same facility;
- mechanically ventilated or trached admitted to long-term acute care hospitals (LTACH) and ventilator (subacute) units of skilled nursing facilities (vSNF);
- admitted from facilities with known *C. auris* transmission;
- colonized or infected with a carbapenemase-producing organism (CPO), especially those requiring high-level care (e.g., indwelling medical devices, mechanical ventilation); and
- with international healthcare exposure in the last 12 months, especially those colonized or infected with a CPO.

Facilities at high risk of *C. auris* introduction and spread include:

- LTACH
- vSNF (particularly ventilator units)
- Acute care hospitals (ACH) high-acuity units, e.g., intensive care, step-down, burn, and oncology units

ALL PHASES and FACILITIES

1. See *C. auris* Quicksheet for pathogen-specific response recommendations across all phases and facilities.¹
2. All confirmed *C. auris* cases must be reported to public health.
3. Ensure laboratories can correctly identify *C. auris*,² and healthcare facilities have access to routine *C. auris* screening resources outside of public health (e.g., polymerase chain reaction (PCR) testing through clinical or commercial lab).³
 - There are a growing number of labs with PCR testing capacity.³ Public health can continue to engage new labs, including reference labs serving high-risk individuals to bring on *C. auris* screening testing.
 - PCR is preferred over culture-based testing due to the shorter turn-around-time which can enable more prompt response to cases.
 - Prioritize engaging facilities admitting high-risk individuals; identify successful or innovative strategies to engage facilities (especially SNF, vSNF) to use these resources.
4. Promote antimicrobial stewardship (AS) in all healthcare facilities

- Ensure appropriate use of broad-spectrum antibiotics and antifungals; e.g., do not treat organisms isolated from non-sterile sites without evidence of infection.
 - Engage facility leadership on implementation of core elements, including:
 - who is responsible for AS in the facility;
 - how the facility is tracking or monitoring antimicrobial use, and for which antimicrobials; and
 - whether the facility has a process for reassessing the indication and duration for antimicrobial prescriptions.
 - Encourage participation in CDPH AS initiatives,⁴ including the AS Program Honor Roll and multidrug-resistant organism (MDRO) prevention collaborative.⁵
5. Implement Enhanced Standard Precautions (ESP) facility-wide in all SNF for all residents with high-risk factors for MDRO transmission (e.g., wounds, indwelling devices).⁶ In units where *C. auris* transmission has been identified, place residents known to be *C. auris*-positive on Contact Precautions pending containment of transmission. Other long-term care settings (e.g., assisted living facilities) may adapt ESP for known *C. auris*-positive individuals.

Phase 1. No *C. auris* cases in LHJ: PREVENTION

1. Engage LTACH to:
 - a. conduct proactive initial and follow-up onsite infection prevention and control (IPC) assessments, education, and outreach coordinated with the HAI Program;
 - b. conduct proactive baseline point prevalence survey (PPS); consider 3-6 monthly proactive PPS;
 - c. conduct admission screening;
 - d. use List P agent⁷ (List K or bleach if not accessible) for facility-wide daily and terminal cleaning and disinfection; and
 - e. ensure clinical lab performs species identification of *Candida* isolates from normally sterile and non-sterile sites or enroll in Antibiotic Resistance (AR) Lab Network Targeted Surveillance Program⁸
2. Engage vSNF to:
 - a. conduct proactive initial and follow-up onsite IPC assessments, education, and outreach coordinated with the HAI Program;
 - b. conduct proactive baseline PPS in vent unit and consider 6-12 monthly proactive PPS; and
 - c. use List P agent⁷ (List K or bleach if not accessible) for daily and terminal cleaning and disinfection in vent unit, and consider using the disinfectant facility-wide for additional prevention.
3. Engage ACH to:
 - a. ensure clinical lab performs species identification of *Candida* isolates from sterile sites; consider species identification in non-sterile sites or enroll in AR Lab Network Targeted Surveillance Program⁸; and
 - b. consider screening testing and placing on empiric Contact Precautions patients admitted with indwelling devices or mechanically ventilated from SNF, in addition high-risk patients.

4. Engage all ACH, SNF, LTACH in routine (e.g., monthly) calls.
 - a. Conduct education and outreach (may coordinate with HAI Program).
 - b. Promote interfacility communication.
 - c. Pair ACH infection preventionist (IP) (mentors) with SNF IP in patient referral networks.
 - d. Encourage participation in CDPH MDRO prevention collaborative(s) as relevant⁵.
5. Follow up on all discharges from known outbreak facilities (intra- and inter-LHJ).
 - a. Screen and place on empiric Contact Precautions in coordination with HAI Program.
6. Consider combining *C. auris* and **carbapenemase-producing organism (CPO) prevention activities**⁹ when feasible, including:
 - a. in LTACH, conduct admission screening and proactive baseline and follow-up CPO PPS facility-wide;
 - b. in vSNF, conduct proactive baseline and follow-up CPO PPS facility-wide; and
 - c. in ACH, conduct CPO screening testing and place on empiric Contact Precautions patients admitted with indwelling devices or mechanically ventilated from SNF, in addition to high-risk patients.

Phase 2. Newly identified case(s) in LHJ: AGGRESSIVE CONTAINMENT + PREVENTION

1. At facility(ies) with cases:
 - a. Conduct initial and follow-up onsite IPC assessments, education and outreach; coordinate with HAI Program as relevant.
 - b. If LTACH, conduct PPS facility-wide; if vSNF, PPS in vent unit; if SNF, screen roommate(s); if ACH, screen roommates, and PPS if high-risk unit (e.g., ICU, burn, oncology).
 - i. Once 2 consecutive negative PPS (plus no new clinical cases) at 2-week intervals at outbreak facilities or units, reduce to monthly for 3 months; if negative, move to 3-monthly if LTACH, and 6-monthly if vSNF; if low-level transmission continues, continue monthly if LTACH, vSNF (see **Phase 3**).
 - c. Conduct retrospective and prospective lab surveillance.
 - i. Conduct retrospective surveillance to identify additional confirmed or suspected cases during the past 6 months.
 - ii. Identify the species of all *Candida* isolates from any specimen source for at least 3 months after there is no longer evidence of transmission.
2. Engage high-risk facilities without cases, if not already done.
 - a. Prioritize LTACH, and vSNF by interconnectedness to *C. auris* outbreak facilities (HAI Program can support identification):
 - i. Conduct proactive PPS facility-wide in LTACH and vent unit in vSNF. If PPS negative, consider 3-monthly proactive PPS in LTACH, 6-monthly proactive PPS in vSNF vent unit
 - ii. Conduct proactive onsite IPC assessment, education, and outreach in coordination with the HAI Program.

- b. Identify other facilities (ACH, SNF) with highest volume of patient sharing with facilities with cases.
 - i. Prioritize for initial and follow-up onsite IPC assessments, education and outreach.
 - ii. Prepare facilities to identify and care for *C. auris*-exposed or -positive individuals.
3. Recommend use of List P agent⁷ (List K or bleach if not accessible) for daily and terminal cleaning and disinfection facility-wide in vSNF and ACH, in addition to LTACH.
4. In vSNF, consider routinely identifying the species of *Candida* isolates in non-sterile (e.g., from urine, respiratory, wound) in addition to sterile specimens or enroll in the AR Lab Network Targeted Surveillance Program if not already done.⁸
5. Implement discharge screening and empiric Contact Precautions on transfers with unknown or negative *C. auris* status from all outbreak facilities, including communication to outside LHJ.
6. Consider disseminating weekly outbreak facility list to all healthcare facility IPs intra-jurisdictionally, and inter-jurisdictionally as applicable
7. Facilities alert LHJ when transferring patients with *C. auris*.
 - a. LHJ follows up on all positive *C. auris* transfer patients (to ensure implementation of appropriate transmission-based precautions and IPC measures).

Phase 3. Ongoing transmission in >50% high-risk facilities for > 6 months in LHJ, but not in surrounding LHJ (locally endemic): MITIGATION

1. Routine PPS
 - a. In LTACH, continue monthly PPS; if <2 cases per PPS for 3 consecutive months, decrease to 3-monthly PPS.
 - b. In vSNF, continue monthly PPS; if <2 cases per PPS for 3 consecutive months, decrease to 3-6 monthly PPS depending on *C. auris*-positive patient burden.
2. Admission Screening + empiric Contact Precautions
 - a. Continue admission screening at LTACH.
 - b. Consider admission screening at vSNF (vent unit only), transitioning to ESP if no transmission in facility; rescreen resident if readmitted after >24 hours hospital admission.
 - c. Consider admission screening at ACH for high-risk patients, if not already done.
3. Transition from LHJ- to facility-led discharge screening and notification for *C. auris*-exposed and -confirmed individuals; LHJ continues notifying outside LHJ of interjurisdictional transfer cases.
4. Ensure all clinical labs perform species identification of *Candida* isolates from normally sterile and non-sterile sites or enroll in AR Lab Network Targeted Surveillance Program.⁸
5. Implement Phase 2 activities if:
 - a. *C. auris* case(s) identified in previously naïve facility;
 - b. new outbreak (higher-than-expected number of cases) in a non-naïve facility; or
 - c. *C. auris* case identified with unusual resistance pattern, strain or other epi (e.g., echinocandin- or pan-resistant or Clade I, II, IV, V, or transfer from out-of-state or abroad).
6. Engage facilities to mitigate morbidity and mortality from invasive *C. auris* infection (particularly bloodstream).
 - a. Prioritize individuals with lines, tubes or drains, particularly central venous catheters (CVC).

- i. Focus on appropriate use and care of medical devices, especially CVC insertion and maintenance practices.
 - ii. Incorporate central line-associated bloodstream infection (CLABSI) prevention and guidance¹⁰ in LTACH and vSNF vent units during public health onsite IPC assessments.
- b. There are no specific recommendations for CHG bathing or decolonization for *C. auris*.

Phase 4. Ongoing transmission in >50% high-risk facilities for >6 months in LHJ, and some surrounding LHJ with highly-connected patient sharing networks (regionally endemic): MAINTENANCE

1. Transition responsibility for routine PPS to facilities; LHJ may conduct routine IPC assessment or check-in with facility upon receipt of PPS results, e.g., every 3-6 months.
 - a. In LTACH, continue 3-monthly PPS.
 - b. In vSNF, continue 6-monthly PPS.
2. Facilities perform admission screening + empiric Contact Precautions for:
 - a. all new and re-admissions to LTACH;
 - b. all new and re-admissions (after >24 hours hospital admission) to vSNF (vent unit only), transitioning to ESP if no transmission in facility; and
 - c. high-risk new and re-admissions to ACH.
3. Facilities responsible for all inter-facility communication.
4. Facilities responsible for knowing baseline prevalence or incidence, and for investigation and reporting to public health when a new outbreak is identified. Examples include:
 - a. evidence of *C. auris* transmission in a previously naïve facility;
 - b. cluster of cases in a distinct patient population or unit; and
 - c. higher-than-expected number of cases occurring in a non-naïve facility.
 - Public health may provide assistance depending on size and scope of the outbreak, as resources allow.
5. Facilities perform screening testing in response to the new outbreak until prevalence over 2 consecutive PPS at least 2 weeks apart decreases to ≤ 2 cases or the facility's baseline prevalence, then reduce to monthly PPS for 3 months; if facility continues to maintain ≤ 2 cases or baseline prevalence, move to 3-monthly if LTACH, and 6-monthly if vSNF.
6. Focus on supporting strong IPC practices in facilities, and continue engaging facilities to mitigate morbidity and mortality from invasive *C. auris* infection (particularly bloodstream).

REFERENCES

1. [CDPH *C. auris* Quicksheet](#) (PDF)
(www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/C%20auris%20Quicksheet_Interim_070720_ADA.pdf)
2. [CDC Identification of *C. auris*](#)
(www.cdc.gov/fungal/candida-auris/identification.html)
3. [LACDPH List of Laboratories with *C. auris* Testing Capacity](#) (PDF)
(publichealth.lacounty.gov/acd/docs/List_C.aurisLabs.pdf)
4. [CDPH AS website](#)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/AntimicrobialStewardshipLandingPage.aspx)
5. [CDPH MDRO Prevention Collaboratives website](#)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/Regional_AR_Collaboratives.aspx)
6. [CDPH Enhanced Standard Precautions website](#)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ESP.aspx)
7. [Environmental Protection Agency \(EPA\) List P Agents with Claims against *C. auris*](#)
(www.epa.gov/pesticide-registration/list-p-antimicrobial-products-registered-epa-claims-against-candida-auris)
8. [AR Lab Network Targeted Surveillance Program](#) (PDF)
([www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH Document Library/CDPH_ARLN_TargetedSurveillanceDescription_052521.pdf](http://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/CDPH_ARLN_TargetedSurveillanceDescription_052521.pdf))
9. [CDPH Carbapenem-resistant and Carbapenemase-producing Organisms website](#)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/CRE_InfectionPreventionStrategies.aspx)
10. [Society for Healthcare Epidemiology of America \(SHEA\) Strategies to Prevent CLABSI in Acute Care Hospitals: 2022 Update](#)
(www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/strategies-to-prevent-central-line-associated-bloodstream-infections-in-acute-care-hospitals-2022-update/01DC7C8BBEA1F496BC20C6E0EF634E3D)

ADDITIONAL RESOURCES

- [CDPH *C. auris* website](#)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/Candida-auris.aspx)
- [CDPH *C. auris* Screening Decision Tree](#) (PDF)
(www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/Tier2_Pathogen_Screening_Decision_Tree_Oct2020.pdf)
- CDPH *C. auris* Toolkit (coming soon)
- [Los Angeles County *C. auris* Mitigation Strategy](#) (PDF)
(publichealth.lacounty.gov/acd/docs/MitigatingSpreadofC.aurisLAC.pdf)
- [CDC MDRO Containment Guidelines](#)
(www.cdc.gov/hai/containment/guidelines.html)

SUMMARY TABLE

Activity/Phase	Phase 1: No known cases	Phase 2: Newly identified case(s)	Phase 3: Locally endemic	Phase 4: Regionally endemic
Proactive initial and follow-up IPC onsite assessments	At all LTACH, vSNF	At naïve LTACH and vSNF, highly-interconnected ACH and SNF		
Proactive baseline and follow-up PPS	At all LTACH every 3-6 months; at all vSNF every 6-12 months	At naïve LTACH (every 3 months) and vSNF (every 6 months)		
Admission screening	At LTACH, all admissions; at other facilities, patients from any LTACH, Phase 2-4 vSNF vent unit, or outbreak facility		At LTACH, all admissions; at ACH/SNF, any high-risk patient admissions; at vSNF, all vent unit and high-risk patient admissions	
Response investigation, initial and follow-up IPC onsite assessment		At all facilities with newly identified case(s) with support from LHJ	At previously naïve facility with evidence of <i>C. auris</i> transmission and non-naïve facility with higher-than-expected number of cases with support from LHJ	At previously naïve facility with evidence of <i>C. auris</i> transmission and non-naïve facility with higher-than-expected number of cases with support from LHJ as resources allow
Response and mitigation screening, including PPS		With support from LHJ, at all facilities with newly identified cases: in SNF/ACH low-risk unit, roommates/shared bathroom or equipment (PPS may be indicated); PPS facility-wide in LTACH, vSNF vent unit, ACH high-risk unit until 2 consecutive negative PPS at 2-week intervals, reduce to monthly for 3 months, and if negative, move to 3-monthly PPS in LTACH, 6-monthly in vSNF	With support from LHJ, for previously naïve facility with evidence of <i>C. auris</i> transmission, non-naïve facility with higher-than-expected number of cases, or unusual <i>C. auris</i> cases, see Phase 2; continue monthly PPS in LTACH, vSNF, and if <2 cases for 3 consecutive months, reduce to 3-monthly PPS in LTACH, 3-6 monthly in vSNF	For previously naïve facility with evidence of <i>C. auris</i> transmission and non-naïve facility with higher-than-expected number of cases: roommates/shared bathroom or equipment in SNF/ACH low-risk unit; PPS facility-wide in LTACH, vSNF vent unit, ACH high-risk unit, continue until 2 consecutive PPS at least 2 weeks apart result ≤ 2 cases or prevalence returns to baseline, then continue monthly PPS for 3 months and if ≤ 2 cases or baseline prevalence maintained, return to 3-monthly PPS in LTACH, 6-monthly in vSNF
Discharge screening and communication	Outbreak facilities responsible for communication of discharges to receiving facility and LHJ; LHJ follows up on all discharges (screening and empiric Contact Precautions on admission)		Discharging facility responsible for notification of exposed and confirmed individuals upon transfer; receiving facility responsible for screening and empiric Contact Precautions on admission	
Antimicrobial stewardship	Promote appropriate use of broad-spectrum antibiotics and antifungals (e.g., do not treat non-sterile sites without evidence of infection); enroll in the CDPH AS Program Honor Roll or MDRO prevention collaborative			
Prevention of invasive infection	Ensure appropriate use and care of medical devices, particularly CVC, focusing on CVC insertion and maintenance			
Use of List P or List K agent or bleach for daily and terminal disinfection and cleaning	In LTACH, facility-wide; in vSNF, vent unit; in ACH, high-risk units (e.g., ICU, SDU); in SNF <i>C. auris</i> -positive resident room and equipment	In LTACH, vSNF and ACH, facility-wide; in SNF, <i>C. auris</i> -positive resident room and equipment		
Clinical labs identify <i>Candida</i> isolates to the species level	For all LTACH isolates; for ACH sterile site specimens	For all LTACH and outbreak facility isolates; for ACH sterile site specimens	For all facility isolates	