Candida auris Screening Guidance

Candida auris[1] is a yeast that may colonize the skin and other body sites, particularly in patients/residents of high-acuity post-acute care facilities like long-term acute care hospitals (LTACHs), and ventilator units of ventilator-capable skilled nursing facilities (vSNFs), and high-acuity units of acute care hospitals (ACHs). Patients/residents colonized with *C. auris* may not have any signs or symptoms and are often colonized for long periods of time. However, colonized patients/residents can develop serious illness or invasive infections, including bloodstream infections. *C. auris* is often multidrug-resistant which makes these invasive infections difficult to treat. *C. auris* can spread from colonized or infected patients/residents to other patients/residents through contaminated health care environmental surfaces, medical equipment, and health care personnel, which may contribute to the spread of *C. auris* among patients/residents in health care facilities. Therefore, preventing the spread of *C. auris* is a public health priority[2].

Goals for *C. auris* Surveillance:

- Surveillance activities for *C. auris* are crucial to understanding the epidemiology and spread of *C. auris* in Michigan.
- Identification of individuals colonized or infected with *C. auris* allows for appropriate and timely implementation of infection prevention precautions and other control measures to reduce the risk of transmission in health care settings.
- Enhanced surveillance of clinical specimens from all body sites combined with active screening strategies can detect *C. auris* outbreaks earlier than relying solely on passive surveillance from invasive/sterile site clinical specimens.

Developing a Surveillance Plan:

Health care facilities are strongly encouraged to develop a plan to detect patients/residents with *C. auris* in their facility. Individual health care facility surveillance plans should be based on their current local epidemiology, patients/residents at higher-risk for *C. auris* in the facility/unit (e.g., patient acuity, type of care provided), and laboratory capacity for *C. auris* identification from clinical cultures and colonization screening testing. Health care facilities can consult the MDHHS Surveillance for Health Care-associated and Resistant Pathogens (SHARP) Unit and/or Bureau of Laboratories (BOL) for assistance with developing facility-specific surveillance plans for *C. auris*.

Guidance Definitions:

Screening: the collection of a specimen (typically a swab of the axilla/groin) to determine *C. auris* colonization status. Resources on *C. auris* screening for clinical laboratories and health care facilities can be found at Michigan.gov/HAI[3]. Colonization screening testing may be performed as part of infection prevention programs for individual patients/residents at higher-risk for *C. auris*, for higher-risk populations within health care facilities (e.g., LTACHs, ventilator-units of vSNFs, intensive care units (ICU) at ACHs), or as part of a public health

containment response to a newly identified *C. auris* case in the facility (e.g., epidemiologically-linked health care contacts).

***Candida auris* case:** a person with a positive test for *C. auris* from any specimen type. Patients/residents with *C. auris* are considered to be colonized indefinitely. A prior history of *C. auris* colonization could be assessed by reviewing medical records, laboratory reports, consultation with a referring health care facility, and/or asking the patient/resident/medical power of attorney/family members "Have you ever been told you had an infection with *Candida auris*?" or "Have you ever been told that you had a test which was positive for *Candida auris*?". For patients/residents with *C. auris* diagnosis history, flag the medical record to alert health care personnel to institute recommended setting-appropriate infection prevention and control measures upon any future readmission.

Health care setting-appropriate infection prevention precautions: appropriate transmission-based precautions for *C. auris*[4] may vary by facility/unit type and if transmission of *C. auris* is confirmed or suspected. Usually this will be contact precautions[5] in ACH and LTACH settings, and enhanced barrier precautions[6] in skilled nursing facilities (SNF). Implementation requires both the use of appropriate transmission-based precautions[4] and use of a disinfectant effective against *C. auris*, preferably a product on the EPA List P[7].

The patient/resident's *C. auris* status should be communicated to all health care personnel who are involved in the care of the patient/resident. Flag medical records to institute setting-appropriate infection prevention precautions upon any future readmissions.

When performing *C. auris* colonization screening on admission, place the patient/resident on setting-appropriate infection prevention precautions while awaiting receipt of screening testing results[8]. When screening is conducted for other purposes, such as a point prevalence survey (PPS) of a facility/unit, empiric use of transmission-based precautions is not required but may be considered.

Patients/residents at higher-risk for *C. auris*: based on prior published literature, certain patients/residents may be at higher-risk for *C. auris* colonization or infection, and may include:

- Epi-linked health care contacts of a newly identified *C. auris* case[9-11]
- Prior admission to a health care facility with ongoing or recent *C. auris* transmission[11]
- Overnight health care stays or invasive procedure exposure outside the United States, or in another US state with high-burden of known *C. auris* transmission[9,11-14]
- Prior admission to an LTACH, vSNF, or ICU[10,11,13,15-18]
- Presence of tracheostomy or on mechanical ventilation[10,11,15,19-20]
- Presence of indwelling devices such as central venous catheter, gastrostomy tubes, drains, or presence of chronic or non-healing wounds[10,11,15,20-21]
- Prior receipt of systemic antifungal or antibiotic medications[10,15,20-21]
- Colonized or infected with an MDRO, including carbapenemase-producing organisms (CPO) [11,14,22]

For guidance on admission screening for individual patients/residents at higher-risk of *C. auris*, see **Appendix A** for a flowchart algorithm and/or **Appendix B** for a checklist tool. Where screening resources are limited,

patients/residents with multiple risk factors for *C. auris* or being admitted to higher-risk health care settings should be prioritized for screening.

Patients/residents with *C. auris* and CPO co-colonization has been regularly observed.[11,14,22] When conducting admission screening for individual patient/residents at high-risk for *C. auris*, consider conducting concomitant CPO screening.

Higher-risk health care settings: a facility or unit is considered higher-risk if they care for patient populations who are at increased risk of being colonized or transmitting multidrug resistant organisms, including *C. auris*. These settings may include:

- Long-term acute care hospitals (LTACH)[10,11,13,17-18]
- Ventilator-units at skilled nursing facilities (vSNF)[10,11,15-18]
- Intensive care units (ICUs), step-down units, or other specialty patient populations like burn or ventilator/pulmonary units in acute care hospitals (ACH)[10-13,17,23-25]

Other facility/unit types are generally considered to be lower-risk.

Epidemiologically-linked health care contact: a patient/resident who may have been exposed to a confirmed *C. auris* case, and may include[26]:

- Roommates and patient/residents who shared a bathroom
- Patients/residents admitted to the same room(s) or bed spaces previously occupied by a confirmed *C. auris* case
- Patients/residents who overlapped on the same facility/unit[27], particularly if they are at higher-risk for MDROs (e.g., on mechanical ventilation, have indwelling devices, bedbound or needs extensive assistance with activities of daily living, receiving antibiotics or antifungals)
- Higher-risk patient/residents with the same high-risk procedure or service (e.g., respiratory therapy, wound care) that shared medical equipment or health care personnel with a confirmed case, as determined by the health care investigation
- Consider other contacts identified in consultation with public health

Screening of epi-linked health care contacts of patients/residents with newly identified *C. auris* infection or colonization is recommended[26] to facilitate implementation of appropriate infection prevention precautions and assess for potential transmission. For guidance on response-based screening, see **Appendix C** for a flowchart algorithm. In general, screening recommendations apply to epi-linked health care contact exposures to the index case in the 30 days prior to the identification of *C. auris* infection or colonization (unless information is available about the time that the organism was mostly likely acquired) through to the present. This includes any health care facility where the patient/resident had an overnight stay during that time period, prioritizing higher-risk facilities/units. Screening may still be beneficial when more remote health care exposures (>30 days prior) have occurred as patients/residents might have been colonized for months prior to detection, particularly for exposures in high-acuity post-acute care facilities. Response-based screening should be coordinated in consultation with public health.

When assessing epi-linked contacts who overlapped on the same facility/unit, a point prevalence survey (PPS) of that facility/unit is a preferred screening approach. When conducting a PPS, all patients/residents in the facility/unit should be included in screening. In lower-risk facility/units, a more targeted screening approach

could be considered, initially focused on those at high-risk for MDROs, roommates/shared bathroom, and shared room/bed spaces. To facilitate initial prioritization of epi-linked contacts who overlapped on the same facility/unit when screening resources are limited, health care facilities could consider an overlap period of ≥ 24 hours, recognizing that this may not reflect the complete time-period of risk for *C. auris* acquisition/transmission[27]. Epidemiologic findings from the health care investigation and initial targeted screenings may help to further define the time-period of potential organism acquisition/transmission and broader screening of contacts may be warranted.

The risk of *C. auris* infection to otherwise healthy people, including health care personnel, is very low. In the absence of known or suspected transmission from health care personnel or other strong epidemiologic links, health care personnel screening is not recommended.

Health care facilities can consult with the SHARP unit regarding identification and prioritization of epi-linked health care contacts for *C. auris* colonization screening. The SHARP unit can also assist with *C. auris* point prevalence survey and outbreak colonization screenings through the Antimicrobial Resistance Laboratory Network, when requested.

States and Regions with High-Burden of *C. auris* Transmission: Health care facilities can review data on which local health department jurisdictions in Michigan have had *C. auris* cases by referring to the Michigan *Candida auris* Surveillance Updates[28] report located at Michigan.gov/HAI[3]. Health care facilities can review data on which States have had *C. auris* cases by reviewing the Centers for Disease Control and Prevention's Tracking *Candida auris*[29] webpage.

For questions or assistance with *C. auris* screening: contact the MDHHS SHARP unit at MDHHS-SHARP@michigan.gov or 517-335-8165; or contact the MDHHS BOL at 517-335-8063.

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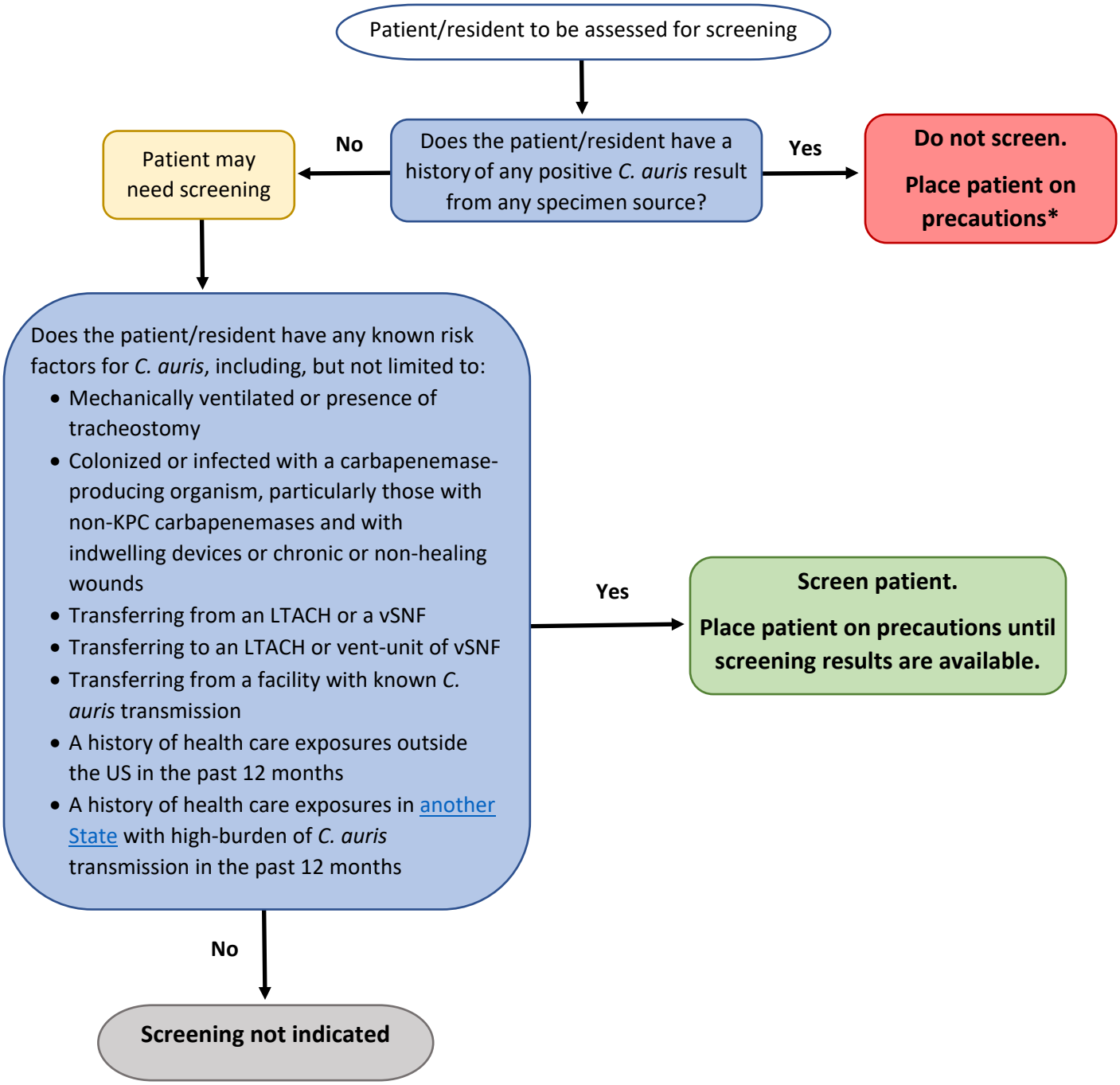
Appendix A. *Candida auris* Admission Screening Assessment Flowchart



*Notes:

- Patients/residents may be colonized with *C. auris* for long periods of time, perhaps indefinitely, even after an acute infection (if present) has been treated and resolves.
- Place patient/resident on **setting-appropriate infection prevention precautions** for the duration of all inpatient health care stays.
- Communicate the patient/resident's *C. auris* status to all health care personnel.
- Flag the medical record to institute infection prevention precautions upon readmission.

Appendix B. *Candida auris* Admission Screening Assessment Checklist Tool

For each patient/resident to be evaluated for *Candida auris* admission screening complete the following assessment:

Q1. Does the patient/resident have a history of any positive *Candida auris* result from any specimen source?

A prior history of *C. auris* colonization could be assessed by reviewing medical records, laboratory reports, consultation with a referring health care facility, and/or asking the patient/resident or their medical power of attorney/family members "Have you ever been told you had an infection with *Candida auris*?" or "Have you ever been told that you had a test which was positive for *Candida auris*?".

☐ **Yes, the patient/resident has a history of *C. auris* infection or colonization:**

- **Do Not Screen the patient/resident.**
- **Place the patient/resident on setting-appropriate transmission-based precautions.**
- Communicate the patient/resident's *C. auris* status to all health care personnel involved in their care.
- Flag the medical record to institute infection prevention precautions upon any future readmission.

☐ **No, the patient/resident has no known history of *C. auris* infection or colonization:**

- The patient/resident may need *C. auris* screening, **proceed to Q2 below**.

Q2. Does the patient/resident meet any of the following criteria?

- Mechanically ventilated or presence of tracheostomy
- Colonized or infected with a carbapenemase-producing organism, particularly those with non-KPC carbapenemases and have indwelling devices or chronic non-healing wounds
- Transferring from an LTACH or vSNF
- Transferring to an LTACH or ventilator unit of a vSNF
- Transferring from a facility with known *C. auris* transmission
- A history of health care exposures outside the United States in the past 12 months
- A history of health care exposures in another US State with a high-burden of *C. auris* transmission in the past 12 months

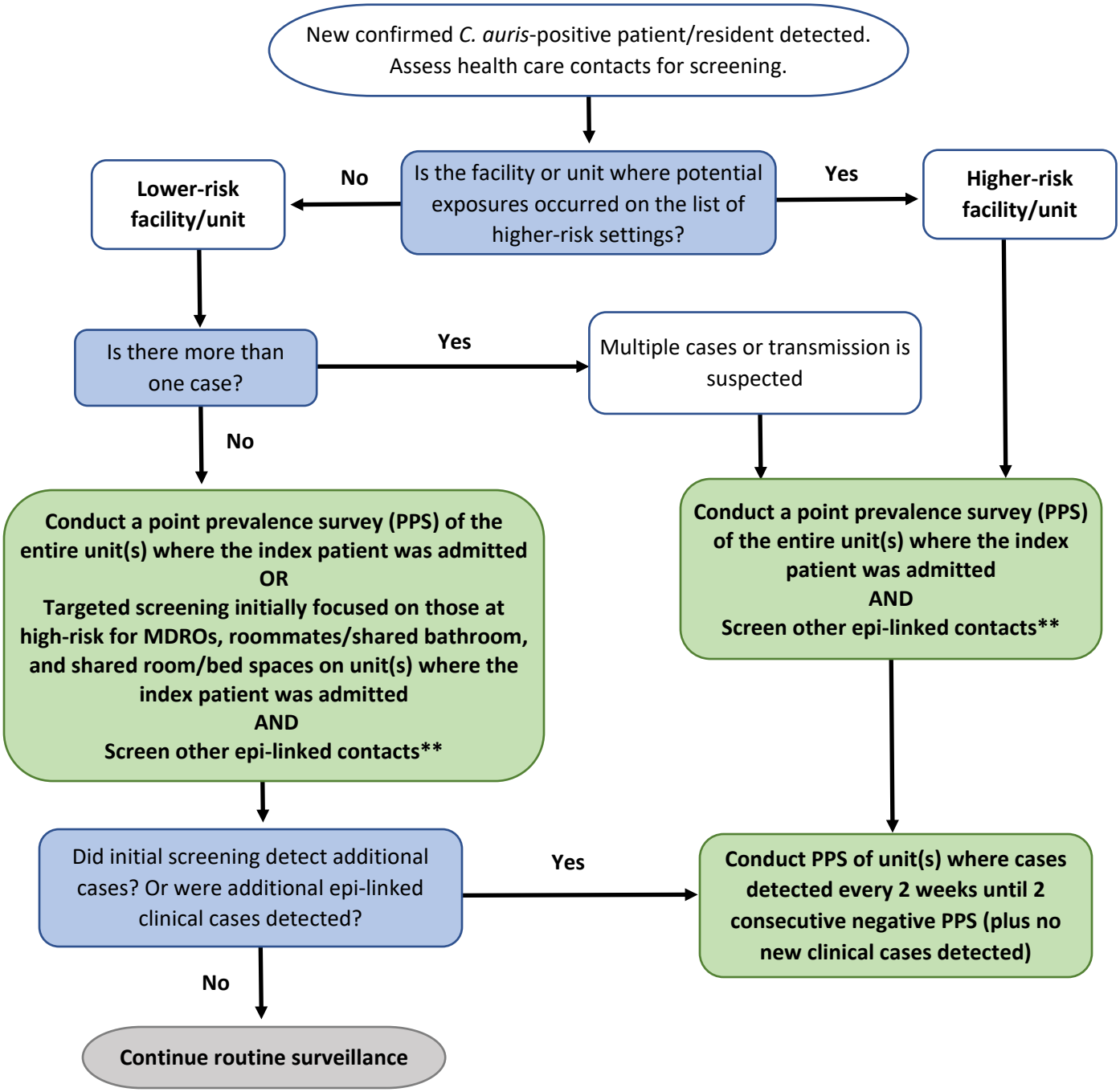
☐ **Yes, the patient/resident meets one or more of the above criteria:**

- **Screen the patient/resident,** depending on local epidemiology, health care setting, and available resources.
- **Place the patient/resident on setting-appropriate transmission-based precautions while awaiting screening results**.

☐ **No, the patient/resident does not meet any of the above criteria:**

- Colonization screening not indicated at this time.

Appendix C. *Candida auris* Response-based Screening Assessment Flowchart for Epidemiologically-linked Health Care Contacts of Newly Identified Cases



**Notes. Epi-linked contacts with common exposures (e.g., shared high-risk procedures or services, shared medical equipment) or who were transferred to other units in the facility should be included in screening. For contacts who have been transferred to other facilities, notify the receiving facility of the patient's *C. auris* exposure status, and flag discharged patients' medical chart for screening in case of future readmission.