



Tennessee Department of Health

Healthcare Associated Infections and Antimicrobial Resistance Program

Containment of *Candida auris*

Tabletop Exercise

The scenario on which this tabletop exercise is based is fictional. All patients, facilities, and events were created for the purpose of the exercise. Any resemblance to actual persons, living or dead, or actual events is purely coincidental.

Participant Roles and Responsibilities

The term participant encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

Players: Players are personnel who have an active role in discussing their roles and responsibilities during the exercise. Players discuss plans relating to the scenario.

Observers: Observers may not directly participate in the exercise; however, they may enhance the discussion by asking relevant questions or providing subject matter expertise.

Facilitators: Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.

Exercise Structure

This exercise will be conducted as a complex Tabletop Exercise using numerous facilitators. Initially, baseline information will be presented to all participants at the same time. Discussions will be open to all participants within their assigned group.

The TTX will be presented in modules for each entity. You will be assigned to a group based on type of agency represented. This exercise will be a facilitated exercise. Players will participate in all modules.

Each module begins with an update that summarizes key events occurring within that time period. After the updates, participants will review the situation and engage in group discussions of appropriate issues.

After these group discussions, participants will engage in a moderated plenary discussion in which a spokesperson from each group will present a synopsis of the group's actions, based on the scenario.

Exercise Guidelines

- This exercise will be held in an open, reduced-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Describe your response to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
- Decisions are not precedent setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response efforts. Problem-solving efforts should be the focus, but it will be critical to recognize when a particular issue may need to be addressed in another setting in order to make the best use of exercise time.

Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise, and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be discussed and evaluated.
- The exercise scenario is intended to be plausible, and events occur as they are presented. There are no "trick questions" or deceptions in the design of this exercise.
- All Participants will receive information at the same time.

Instructions for Questions

Based on the information provided, participate in the discussion concerning the issues raised in each module. Identify any critical issues, decisions, requirements, or questions that should be addressed at the time.

The questions in this booklet are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question. As a group, record your answers.

Module 1: Notification

Key Issues

- Notification
- Situational awareness and information sharing
- Containment strategies

General Hospital is notified by the Tennessee Department of Health (TDH) Healthcare Associated Infections and Antimicrobial Resistance (HAI/AR) Program of a patient with a *Candida auris* (*C. auris*) bloodstream infection (BSI). This case needs to be investigated. *C. auris*, including rule-out (suspect) *C. auris*, is a reportable disease with required isolate submission. The infection preventionist typically takes the lead.

Ms. Jones was admitted to General Hospital on **January 3rd** with signs and symptoms of sepsis. A blood culture was taken, but despite their best efforts, the lab could only identify the organism as *Candida* species. The isolate was sent to the state public health lab, where it was identified as *Candida auris* on **January 8th**.

Module 1 Questions

1. *C. auris* can spread easily and cause outbreaks in healthcare facilities. This is the first case of *C. auris* in Tennessee; our goal is containment. What are some key questions to ask to begin planning a containment strategy?

2. Where could you start to find the information you need?

Module 2: Case History

Key Issues

- Potential transmission
- Containment strategies
- Communication
- Lab Identification

An infection preventionist at General obtains the case history and medical records. As a member of the infection prevention team your job is to identify which components of the case history are relevant and what next steps you recommend.

You discover that Ms. Jones was admitted to General Hospital from Shady Oak Nursing Home due to signs and symptoms of sepsis. Ms. Jones was admitted to Shady Oak on **December 30th**, less than a week before showing symptoms.

Module 2 Questions

1. You discover that Ms. Jones was admitted to your facility from Shady Oak Nursing Home due to signs and symptoms of sepsis. Ms. Jones had only been at Shady Oak for less than a week before showing symptoms. Is it likely that she picked up the organism at Shady Oak?

You discover that prior to her stay at Shady Oak, Ms. Jones had been at Sacred Heart, a long term acute care hospital (LTACH) for a long period of time. Ms. Jones has never been out of the country.

- 2. How would you evaluate the potential for transmission? How could you determine if transmission has occurred?

- 3. What are the key next steps?

Module 2 Additional Information

You discover that while at Sacred Heart, Ms. Jones had a roommate – Ms. Smith. In addition to reviewing the case history, you also conduct a lab lookback at each facility to determine if there had been any suspect *Candida spp.* prior to Ms. Jones.

The lab lookback at General shows that on **November 5th** a patient with an indwelling foley had developed a UTI and subsequently had a urine culture which was identified as *Candida haemulonii* using the Vitek 2 YST method. You immediately suspect *C. auris*. However, this patient and Ms. Jones had stayed on two different units in different areas at General.

You then find out that this patient is Ms. Smith, the same person that Ms. Jones shared a room with at Sacred Heart. Ms. Smith was discharged from General Hospital to Sacred Heart on **November 17th**. You decide to review Ms. Smith's case history.

During your review of Ms. Smith's case history, you discover that prior to being admitted to General Hospital on **October 22nd**, Ms. Smith had been at home. However, you know that patients colonized or infected with *C. auris* typically have a history of multiple hospitalizations.

On further investigation, you discover that Ms. Smith had been admitted to a ventilated skilled nursing facility (vSNF) in New York City on **July 10th**. On **August 14th**, Ms. Smith was discharged and came to Tennessee to live with family. You know that *C. auris* has emerged in New York City and has been an issue in healthcare facilities there.

Module 3: Facility Assessment

Key Issues

- Situational awareness
- Infection prevention
- Screening
- Contact precautions
- Environmental cleaning

The Tennessee Department of Health (TDH) Healthcare Associated Infections and Antimicrobial Resistance (HAI/AR) team visits all three healthcare facilities to perform assessments. Their goal is to better understand facility practices, assess the risk for transmission, and provide specific steps for containment.

Module 3 Questions

General Hospital has overall good infection control. Contact precaution signage is available and well utilized. Gloves, gowns, masks, and hand sanitizer are readily available. There is opportunity for improvement in equipment cleaning (i.e. portable x-ray machines)

1. If you were an IP in **General Hospital** what should you do to immediately address infection prevention and control concerns?

Shady Oak Nursing Home has a few opportunities for improvement. Gloves are readily available, but gowns are not. There is no internal auditing of infection control procedures. Contract cleaning services are used, and there is not oversight. Most cleaning is done with quaternary ammonium compounds, sporicidals are rarely used.

2. If you were an IP at **Shady Oak Nursing Home**, what should you do to immediately address infection prevention and control concerns?

Sacred Heart LTACH has several opportunities for improvement. Adherence to contact precautions and hand hygiene is low. Use of PPE is minimal, and is often used incorrectly. There is little oversight of contract cleaning services. Quaternary ammonium compounds are used for all cleaning (routine and terminal), contact times are not understood or followed.

- 3. If you were an IP at **Sacred Heart LTACH** what should you do to immediately address infection prevention and control concerns?

- 4. At **General Hospital, Shady Oak, OR Sacred Heart**, how could you:
A.) Assess if transmission has occurred?

- B.) Prioritize your efforts if resources are limited?

Module 4: Screening Plan

Key Issues

- Develop screening plan
- Situational awareness
- Communication
- Containment

Having learned about TDH facilitated screening at a training, you think screening will be recommended by TDH.

Module 4 Questions

1. Identify individuals for screening:

2. Who do you contact for colonization screening? How do you contact them?

VOTING for multiple choice questions:

- Text CSTOVER593 to 22333 to join the session
- When each question has been activated, text the letter of your answer choice (e.g. A, B, C, or D) to 22333

Alternatively, you can download the Poll Everywhere App (it's free) and enter CSTOVER593 to join the session.

- Responses are completely anonymous
- Only one question is active at a time

3. How do you get swabs?

- a) Swabs will be stocked at the state health department and sent with investigating epidemiologist
- b) Swabs will be stocked at the state health laboratory and overnighted to facility on request
- c) Swabs will be stocked at the facility
- d) None of the above

4. Is patient consent required for screening?

- a) IRB approval is needed
- b) Screening included in usual facility consent for treatment
- c) Signed consent form required
- d) Verbal "assent" may be obtained and documented on forms provided by TDH
- e) b or d depending on facility preference

5. What if some patients refuse to be swabbed?

- a) Participation can be forced by public health law
- b) Accept the patient's decision and place on contact precautions
- c) Contact the primary care provider and ask them to order the test

6. What site(s) are appropriate for *Candida auris* screening?

- a) External ear swab
- b) Rectal swab
- c) Throat swab
- d) Axilla/groin swab

- 7. What are the conditions for shipping screening swabs to the state public health lab?
 - a) Samples should be maintained at temperatures between 5-25° C (room temperature)
 - b) Samples should be maintained below 0° C during shipment
 - c) Samples should be maintained between 36-38° C (body temperature)
 - d) There is no required temperature for shipping

- 8. How long will it take to receive testing results from the state public health lab?
 - a) 15 business days from receipt of specimen (14 days to test, one day to report)
 - b) 8 business days from receipt of specimen (7 days to test, one day to report)
 - c) 2 business days from receipt of specimen (1 day to test, one day to report)
 - d) 4 business days from receipt of specimen (3 days to test, one day to report)

- 9. What would you do if you received push back from your facility/corporate leadership?

Module 5A: Contact Tracing

Because you believe that Ms. Jones was colonized at Sacred Heart as a result of sharing a room with Ms. Smith, you decide in consultation with TDH to conduct contact tracing in the facility to identify other potentially colonized patients.

Module 5A Questions

1. Where do you begin contact tracing?

You discover that Ms. Smith was discharged to Fieldcrest vSNF after Ms. Jones was discharged to Shady Oak, and two new patients, Mr. Brown and Mr. Miller, were placed in their room.

You know that *C. auris* can persist in the environment for several weeks, and that quats are not sufficient to kill it. You are concerned that Mr. Brown and Mr. Miller may now be colonized.

Module 5B: Patient Sharing

TDH needs to identify facilities that are at-risk for receiving colonized patients. This can be done by using social network analysis to determine which facilities share patients on a regular basis.

Module 5B Questions

1. Which tool can TDH use to conduct a social network analysis?

Module 6: XDRO Registry

VOTING for multiple choice questions:

- Text **CSTOVER593** to **22333** to join the session
- When each question has been activated, text the letter of your answer choice (e.g. A, B, C, or D) to **22333**

Alternatively, you can download the Poll Everywhere App (it's free) and enter **CSTOVER593** to join the session.

- Responses are completely anonymous
- Only one question is active at a time

Module 6 Questions

1. If a patient is home between hospitalizations, how can the patient be tracked?
 - a. A letter can be sent home with the patient
 - b. The patient's chart can be flagged
 - c. The XDRO Registry
 - d. All of the above
- The Tennessee XDRO Registry is a tool that will be used to implement more timely infection control of multi-drug resistant organisms (MDROs).
 - Will provide information to Tennessee healthcare facilities on patients with any of the MDROs (e.g. CP-CRE, *Candida auris*, pan-nonsusceptible organisms) that may be entering the facilities.
 - Will enable healthcare providers to implement infection control practices and reduce the spread of MDROs.
 - Users will be able to log into the registry and search for an admitted patient who may have tested positive for an MDRO in the past.
 - Timely reporting to TDH of patients with MDROs is essential.
 - Patients who test positive for an MDRO will only appear in the XDRO registry if they are reported to TDH in a timely manner.

Module 7: Missed Opportunities

Key Issues

- Lab identification
- Situational awareness
- Containment strategies
- Infection Prevention
- Contact precautions
- Environmental cleaning

Looking back, you recognize that there were opportunities to prevent spread of *C. auris* before it was identified at General Hospital on **January 8th**.

Module 7 Questions

1. What were the missed opportunities for lab identification?

2. What were the missed opportunities for containment?

Conclusion

Colonization screenings were conducted at all three network facilities:

- 2 patients found to be colonized at General Hospital
- 1 patient found to be colonized at Shady Oak
- 3 patients found to be colonized at Sacred Heart

Next Steps:

- Each facility should conduct regular screenings in conjunction with TDH until there is evidence of no further transmission
- Positive patients should be added to the XDRO registry
- Repeat facility assessments should be conducted to reassess infection control practices