

ATTENTION PLAYERS:  
**NO PEEKING!**

# ESCAPE FROM THE DEADLY PATHOGEN

## FACILITATOR GUIDE

AN INFECTION PREVENTION ESCAPE ROOM FEATURING:

*Candida auris*

PRESENTED BY THE VIRGINIA INFECTION PREVENTION TRAINING CENTER



**VCU**

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# FACILITATOR GUIDE

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## SCENARIO

*Candida auris*, or *C. auris*, has escaped police containment and is loose in your facility! He and his evil band of multidrug-resistant organisms plan to spread throughout the environment and infect as many people as possible. Stop him and his comrades by learning six important infection prevention strategies.

## THE PUZZLES

Players will have to complete seven puzzles to successfully stop *C. auris*. All but one puzzle will take place inside a “patient” room. The first puzzle, *Correctly Putting On PPE*, will take place just outside the room.

- Puzzle 1: Correctly Putting On PPE
- Puzzle 2: Patient Education
- Puzzle 3: Splash Zone Risks
- Puzzle 4: Environmental Cleaning & Disinfection
- Puzzle 5: My 5 Moments for Hand Hygiene
- Puzzle 6: Safely Removing PPE
- Puzzle 7: Putting It All Together

## THE ROLE OF THE FACILITATOR

We recommend the facilitator be a healthcare professional familiar with infection prevention and control best practices in case questions arise or to clarify facility policies. You will need to be available during the experience to guide players through the room and provide hints, when necessary. Thoroughly familiarize yourself with the script and puzzles in this guide. The better you know the game, the better you can assist the players.

In addition, you will be responsible for customizing and building the escape room based on the space and props available at your facility. You will also need to reset the room in between groups. In the next few pages, we'll walk you through the process of creating the room and provide a checklist for resetting the room.

## WINNING THE GAME

If players complete all the puzzles in the allotted time (we recommend 45 minutes), they have escaped the room without transmitting *C. auris* and won the game!

# PLAN THE ROOM

## Before You Build

For this escape room, you will be mocking up a patient room. This can be made as elaborate or simple as you like. You can stage this in a simulation or education room, empty patient room, break room or even a conference room. While it's not absolutely necessary to have medical props or a "patient" in the room, we encourage you to be creative and make this as fun and interactive as possible.

Please watch our *How to Setup Your Escape Room* video for more ideas.

<https://bit.ly/3N8Ly6O>



In addition, you will need to play an introductory video at the beginning which will introduce the scenario to the players. Consider what equipment you have available to you for viewing the video in the room. If none are available, you or other members of your team could play the parts of the actors (don't worry, we've provided a script for you).



## Below are some prompts to help you plan.

- What space is available to you? Will you be using a patient room, conference room or break room?
- Are there any areas or items in the room that might be problematic?
- What props can be used? Do you have access to an IV pole, bedside table, wheelchair or ultrasound machine?
- Is there space to place the locked bags and other items?
- Is there a workspace for players to open locked bags and solve puzzles?
- How will you present the patient, Ms. Sickly?
- How will you play the introductory video? Do you have a computer, TV or tablet available?
- Players must use a cell phone to play the game. Will there be WiFi for them?
- How many groups of players will you have?
- Are there any accessibility or language barriers that need to be addressed?

# BUILD THE ROOM

## STEP 1: PREPARE THE COMBINATION LOCKS AND THE LOCKED BAGS

First, ensure the combination locks work and the bags have all the necessary elements.

### Combination Locks

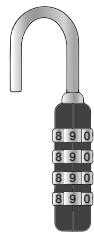
Reset your combination locks to the combinations below.

If you would prefer to not use combination locks, you can opt for a low-budget alternative. Print a piece of paper with space for the combination numbers to be written down. Hole punch and tie around the bag. Have players write down or say the combination. The facilitator will then confirm that the combination is correct and allow the players to open the bag.

Combination locks are notoriously tricky and deceptive (just like *C. auris*!) We recommend the facilitator practice opening and closing the combination locks so that they understand how they work and can help players who are struggling with the locks.



3-digit lock (combination: 173)



4-digit lock (combination: 2464)

### Locked Bags

We have used a ziplock-style biohazard bag and a urine drainage bag for our locked bags. Other options for locked bags include a manila envelope, patient belongings bag, specimen bag, disposable refillable ice bag, or any bag that has a hollow space inside such as an IV bag or disposable blood pressure cuff. Please see our video on How to Setup Your Escape Room for ideas.

For open bags (i.e., biohazard bag, patient belongings bag, specimen bag, etc.), punch holes on the left and right side of the bag towards the top and thread the 3-digit lock through the holes. For closed, hollow bags (i.e., urine drainage bag, IV bag, blood pressure cuff, etc.), cut a slit large enough to insert the puzzles and supplies, and punch holes on either side of the slit for the 4-digit lock.

Ensure locked bags have all the necessary elements and that the black light is fully charged.



Locked Bag #1 (combination: 173)

- Splash Zone word search
- Environmental cleaning checklist
- Black light
- Highlighter
- Pen



Locked Bag #2 (combination: 2464)

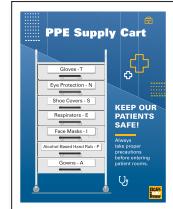
- My 5 Moments for Hand Hygiene matching game
- My 5 Moments matching cards
- My 5 Moments cryptograph
- Dry-erase marker

## STEP 2: PREPARE THE POSTERS, PUZZLES, AND OTHER ELEMENTS

Using the Master Copies section of this pdf you will need to print, laminate, and/or cut out the posters, puzzles, and other elements.

### PRINT AND LAMINATE:

- Rules for Play
- Case File
- Contact Precautions sign
- Supply Cart poster
- Patient Education form
- Splash Zone poster
- My 5 Moments poster
- How to Safely Remove PPE
- Patient Care Board
- Photo of Ms. Sickly



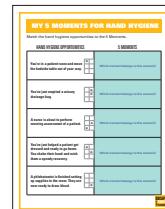
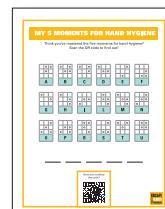
### PRINT, LAMINATE, AND CUT:

- My 5 Moments matching cards



### PRINT:

- Splash Zone word search
- Environmental cleaning check list
- My 5 Moments matching game
- My 5 Moments cryptograph



### STEP 3: PREPARE THE SPACE

Next, clear the room of anything that could be mistaken for a puzzle or clue, or items that should not be handled or rummaged through. Hang the posters and set up the props including the patient, Ms. Sickly. Don't forget to watch our video, *How to Setup Your Escape Room*, for ideas.

#### Placement of Posters & Other Elements

| ITEM                     | SUGGESTED PLACEMENT  | ASSOCIATED PUZZLE |
|--------------------------|--|-------------------|
| Rules for Play           | Place face up on a counter or table in the room                      | All               |
| Case File                | Place face up on a counter or table in the room                      | All, Puzzle 2 & 4 |
| Contact Precautions sign | Hang on the outside of the door to the room                          | Puzzle 1          |
| Supply Cart poster       | Hang below or near the Contact Precautions sign, in an obvious place | Puzzle 1          |
| Patient Education form   | Place in a drawer, cabinet or partially hidden in the room           | Puzzle 2          |
| Splash Zone poster       | Hang above sink (if no sink, hang on wall inside room)               | Puzzle 3          |
| My 5 Moments poster      | Hang on wall inside room   | Puzzles 5         |
| How to Safely Remove PPE | Hang both or just Example 1 poster on wall near door                 | Puzzle 6          |
| Patient Care Board       | Hang on wall inside room   | All, Puzzle 7     |
| Locked Bag #1            | Place in a drawer, cabinet or partially hidden in the room           | Puzzles 3 & 4     |
| Locked Bag #2            | Place on counter or hang on a bed, wheelchair or IV pole             | Puzzles 5, 6 & 7  |
| Photo of Ms. Sickly      | (Optional) Tape to pillow, wheelchair or training dummy              | Intro, Puzzle 2   |

#### Props

##### **Ms. Sickly, the patient**

Use your imagination for how you would like to present Ms. Sickly in the room. She could be a training dummy or use pillows stuffed under the sheets of a bed with a photo of her face lying at the head of the bed (see the photo of Ms. Sickly in the *Master Documents*). Alternatively, she could be a stuffed animal, or you could simply tape her photo to a chair.

##### **Other props**

It is helpful to bring in props, especially those considered high-touch surfaces, to aid in creating a realistic and interactive environment. High-touch props, such as an overbed table or IV pole, will help set up for *Puzzle 4: Environmental Cleaning & Disinfection*. See below for more details on how high-touch surfaces are used in the game.

#### STEP 4: PLACE THE GLO GERM FINGERPRINTS

For *Puzzle 4: Environmental Cleaning & Disinfection*, players will be asked to find and count fingerprints on high-touch surfaces using the black light in locked bag #1.

To prepare for this puzzle, choose 5 high-touch surfaces in the room. Using Glo Germ, place a total of 9 fingerprints (dots) on the high-touch surfaces. Write down your chosen areas and the number of prints for reference.



**For example:**

| HIGH-TOUCH SURFACE                  | # OF FINGERPRINTS |
|-------------------------------------|-------------------|
| 1. Overbed table.....               | 3                 |
| 2. Light switch.....                | 1                 |
| 3. Sink faucet handle.....          | 2                 |
| 4. Door knob on inside of room..... | 1                 |
| 5. IV pole grab area.....           | 2                 |
|                                     | = 9               |

Use the black light to check the visibility of each fingerprint. Please note that Glo Germ does not show well on some surfaces.

*(Don't forget to make sure the black light is charged and put back in locked bag #1 before play starts!)*

#### STEP 5: QUEUE THE INTRODUCTION VIDEO

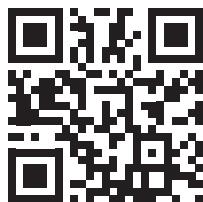
Below are links the introduction and education videos. These QR codes can also be found on Ms. Sickly's photo. We recommend having the video queued and ready to play before the game starts. Subtitles can be turned off or on as needed.

**English:**

[bit.ly/3TVLvpT](https://bit.ly/3TVLvpT)

**Spanish:**

[bit.ly/3XUi2GS](https://bit.ly/3XUi2GS)



# RESET THE ROOM

## ROOM RESET CHECKLIST

- Recharge the black light
- Photocopy "Quick Copies" from *Master Documents*: one set of clean, unmarked puzzles for the next group
  - Splash Zone word search
  - Environmental cleaning checklist (if needed)
  - My 5 Moments matching game (if needed)
  - My 5 Moments cryptograph
- Rules for Play: Place back in original position (counter or table inside the room)
- Case File: Place back in original position (counter or table inside the room)
- Contact Precautions sign: Make sure it is still hanging on the outside of the door to the room
- Supply Cart poster: Make sure it is still hanging below or near the Contact Precautions sign
- Patient Education form: Place back in original position (drawer, cabinet, etc.)
- Splash Zone poster: Re-hang above sink (or on wall) if this was removed
- My 5 Moments poster: Re-hang on wall if this was removed
- How to Safely Remove PPE poster(s): Re-hang on wall near door if this was removed
- Patient Care Board: Erase any marks and re-hang on wall if this was removed
- Locked bag #1 (combination 173): Lock the following in the bag (make sure to use clean, unmarked copies) and place the bag back in original position (drawer, cabinet, etc.)
  - Splash Zone word search (Puzzle 3)
  - Environmental cleaning checklist (Puzzle 4)
  - Rechargeable black light (Puzzle 4)
  - Highlighter (Puzzle 3)
  - Pen (Puzzles 3, 4 & 5)
- Locked bag #2 (combination 2464): Lock the following back in the bag and place in original position (counter, table, IV pole, etc.)
  - My 5 Moments matching game (Puzzle 5)
  - My 5 Moments matching cards (Puzzle 5)
  - My 5 Moments cryptograph (Puzzle 5)
  - Dry-erase marker (Puzzle 7)
- Ensure props and Ms. Sickly are in the correct place
- Check that Glo Germ fingerprints are still visible and no Glo Germ has been smudged or transferred to other locations
- Have the introduction video queued and ready to play
- Facilitator Guide: Make sure you have this with you during play!



# FACTA

## SCRIPT AND PLAYER HINTS

# INTRODUCTION & EDUCATION

## Facilitator Actions:

Gather everyone inside the area of play and say the following.



Welcome to "Escape from the Deadly Pathogen" and thank you all for being here today! The goal of this game is to thwart the evil villain, *Candida auris*, in his plans to spread to patients and shared equipment! You and your team must successfully solve puzzles and complete important infection prevention tasks in order to escape the room without transmitting *C. auris*.

Before we get started, I want to take a minute to go over the Rules for Play for this escape room.

- Once game play begins, you will have 45 minutes to prevent *C. auris* from entering or leaving the patient room.
- The room is not locked. If you need to leave, you can.
- Please do not break anything in the room or force open items. Do not rip or cut "locked" containers or you will be disqualified.
- Please do not climb on anything. Clues will all be within reach.
- This escape room does not make use of any alarms. All alarms heard during play will be real. Please follow facility instructions on what to do in case of emergencies.
- Hints are available, but each hint will cost you 1 minute.
- Cell phones are allowed and necessary (that first hint is free).
- And last, please keep this experience confidential so as not to spoil it for others!

I'd like to introduce you to our patient, Ms. Sickly. She is going to give you brief update on the situation.

## Facilitator Actions:

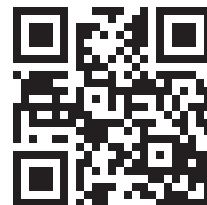
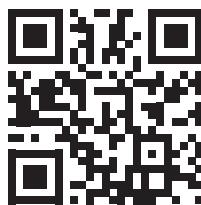
Next, play the introductory video (see QR on photo or QR/link on this page), or if pretending to be Ms. Sickly & the newscaster, read the following:

### English:

[bit.ly/3TVLvpT](https://bit.ly/3TVLvpT)

### Spanish:

[bit.ly/3XUi2GS](https://bit.ly/3XUi2GS)





**Ms. Sickly:** I'm so glad you're here! The germ police just came in my room a minute ago and said that the notorious pathogen, *Candida auris*, has escaped from custody! They think he's loose in the hospital, and might even be after me! They told me he may even be in the room at this very moment and that we wouldn't know it! The nurse that was with them took a swab from my skin and sent it to the lab for testing. In the meantime, they told me to be very careful. They said they need everyone's help, even mine, to stop him from infecting patients and spreading to others. I'm not sure what I can do to help, but they left a copy of his case file on the table over there. Maybe we should take a look and see what...

(A moment of static then cut to a news flash broadcast.)

**Newscaster:** Breaking news! We have just heard that the notorious criminal *Candida auris* has escaped. I repeat, *C. auris* has escaped. This criminal mastermind has plagued hospitals and nursing homes throughout the United States for the past decade. In 2022, *Candida auris* was responsible for causing 2,377 clinical cases! *C. auris* targets at-risk patients with serious medical problems and causes death in more than 1 in 3 patients. The CDC has deemed *C. auris* an urgent multidrug-resistant threat because of its resistance to multiple antifungal drugs and its ability to spread easily in healthcare environments.

*C. auris* can live on surfaces for several weeks and is resistant to many common healthcare disinfectants.

[Holding finger on ear piece] Uh, I'm being told that *C. auris*' last known locations include high-touch surfaces in patient and procedure rooms, portable medical equipment and other surfaces in the healthcare environment. Authorities urge everyone to be on the lookout and to take proper precautions. Stay tuned to this station for updates on this evolving issue.

(A moment of static then cut back to Ms. Sickly.)

**Ms. Sickly:** ...so scary! Oh dear! I've just noticed, I don't think any of you should be in this room! I was told not to let anyone in if they haven't taken proper precautions first! You'd better leave the room. I can't let you back in unless you know the correct password. But please hurry. We don't have much time to stop that nasty *C. auris*!



**Facilitator Actions:**

After the video ends, say the following.



*Ms. Sickly is right! It's important to take proper precautions before entering a patient room. Your first puzzle will be just outside this room. Once you've solved the puzzle, knock on the door and state the password. I'll let you know if it's safe for you to come in or not.*

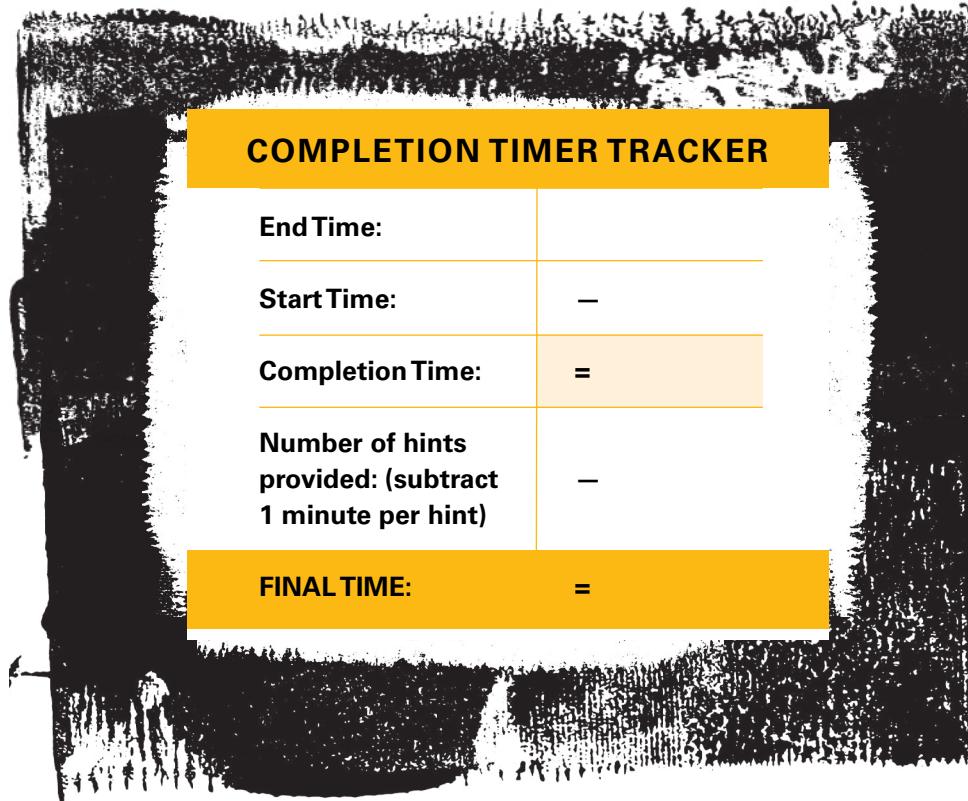
*Remember, if you get stuck, you're allowed to ask for a hint, but keep in mind it will cost you one minute. Don't forget, you have 45 minutes to thwart C. auris' evil plan! The clock starts now.*

**Player Actions:**

All players should now leave.

**Facilitator Actions:**

**Start a timer or write down the start time!** We've provided space on the second to last page of this guide for recording times, or use the timer on your phone.

A black and white photograph of a completion timer tracker. The tracker is a rectangular card with a yellow header and a white body. It has a grid of five rows and two columns. The first row is labeled 'End Time:' with a blank line. The second row is labeled 'Start Time:' with a blank line. The third row is labeled 'Completion Time:' with a blank line. The fourth row is labeled 'Number of hints provided: (subtract 1 minute per hint)' with a blank line. The fifth row is labeled 'FINAL TIME:' with a blank line. The entire card is set against a dark, textured background.

# CASE FILE: ESCAPE FROM THE DEADLY PATHOGEN

## WANTED:

### *Candida auris* (aka *C. auris*)



## DESCRIPTION:

- A yeast (a type of fungus) discovered in 2009 that behaves more like a bacterium
- Often resistant to multiple, if not all, antifungal drugs
- Spreads easily in healthcare environments through contact
- Can live on surfaces for several weeks
- Resistant to many common healthcare disinfectants
- Causes bloodstream and other types of invasive infection, with high death rates
- Causes indefinite colonization with no proven decolonization method
- Easily misidentified and often confused with other *Candida* species

## OUTSTANDING WARRANTS:

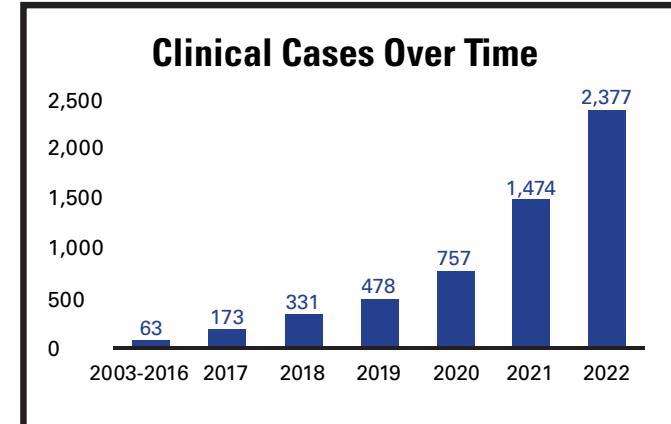
- CDC has deemed *C. auris* an urgent multidrug-resistant threat because of its resistance to multiple antifungal drugs and its ability to spread easily in healthcare environments

## LAST KNOWN LOCATIONS:

- Colonized and infected patients
- High-touch surfaces in patient and procedure rooms
- Portable medical equipment
- Other surfaces in the healthcare environment

## SUSPECTED CRIMES:

- Spreading in the United States since 2015; cases continuing to increase
- Causing numerous outbreaks in hospitals and nursing homes
- Targeting at-risk patients with serious medical problems
- Causing death in more than 1 in 3 patients with invasive *C. auris* infection
- Evading identification; specialized laboratory technology is required for proper identification



## CHARACTERISTIC OR IDENTIFYING MARKS:

- The most common symptoms are fever and chills that don't improve after antibiotic treatment for a suspected bacterial infection

## KNOWN ASSOCIATES:

- Other multidrug-resistant organisms

## ESCAPE FROM THE DEADLY PATHOGEN

# RULES FOR PLAY

1. You will have 45 minutes to prevent *C. auris* from entering or leaving the patient room.
2. The room is not locked. If you need to leave, you can.
3. Please do not break anything in the room or force open items. Do not rip or cut “locked” containers, or you will be disqualified.
4. Please do not climb on anything. Clues will all be within reach.
5. This escape room does not make use of any alarms. All alarms heard during play will be real. Please follow your facility’s instructions on what to do in case of emergencies.
6. Hints are available, but each will cost you 1 minute.
7. Cell phones are allowed and **necessary**.
8. Keep this experience confidential so as not to spoil it for others!

# PUZZLE 1 – CORRECTLY PUTTING ON PPE

## Player Actions:

Players will exit the room. To gain entry they will have to notice and read the contact precautions sign on the door and the PPE Supply Cart poster. The PPE Supply Cart lists the various types of PPE (including alcohol-based hand rub), each associated with a letter. Players will need to determine which type of PPE is required for the room, the order in which it should be put on, and when to perform hand hygiene. The corresponding letters will spell out PAT (P=hand hygiene, A=gown, T=gloves) which is the password they must say to the facilitator.

*(Note: The password PANT (P=hand hygiene, A=gown, N=eye protection, T=gloves) is also acceptable if they can provide justification for wearing eye protection into the room.)*

## Facilitator Actions:

Provide a hint if the players request one. Hints will vary from group to group. We recommend you listen to their conversations so you can identify which hint would be most helpful. Below are suggested hints, but you may need to customize as needed. Remember to make a note of how many hints players use!

## Hint Examples:

- Perhaps look on the outside of the door for clues?
- Healthcare workers should always assess the risk of transmission before entering a patient room.
- The labels on the supply cart look a bit different. Perhaps start there?
- Order is important!
- What is the bare minimum of PPE you would need for this particular patient room?
- What's the first thing you do before entering any patient room and the last thing you do when leaving?
- At the very least, give yourself a PAT on the back for trying to prevent transmission of *C. auris*!

## Facilitator Actions:

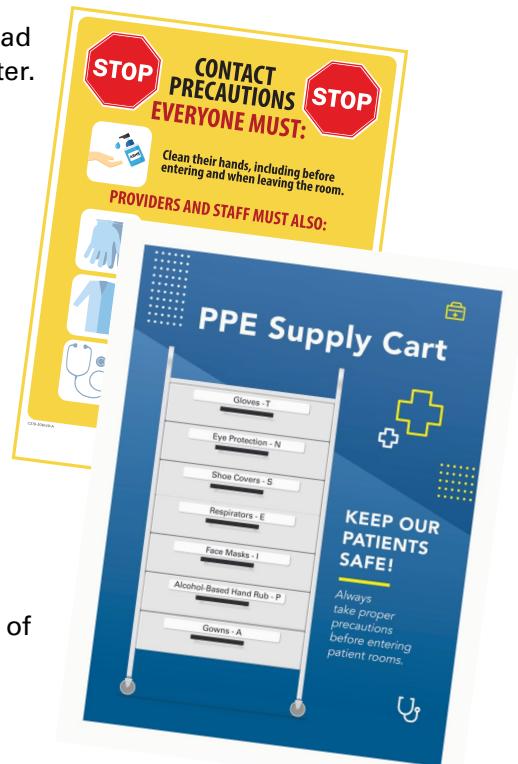
Once the players provide the password (PAT), the facilitator can read one of the following:



*Yes! That's correct! You can come in. Congratulations on completing your first puzzle and thank you so much for remembering hand hygiene, otherwise you might have contaminated the PPE and possibly even brought *C. auris* into the room with you!*

*or*

*No, I'm sorry. Try again. Let me know if you need a hint.*





# CONTACT PRECAUTIONS EVERYONE MUST:



**Clean their hands, including before entering and when leaving the room.**

## PROVIDERS AND STAFF MUST ALSO:



**Put on gloves before room entry.  
Discard gloves before room exit.**



**Put on gown before room entry.  
Discard gown before room exit.**

**Do not wear the same gown and gloves for the care of more than one person.**



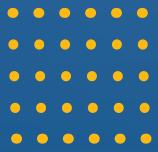
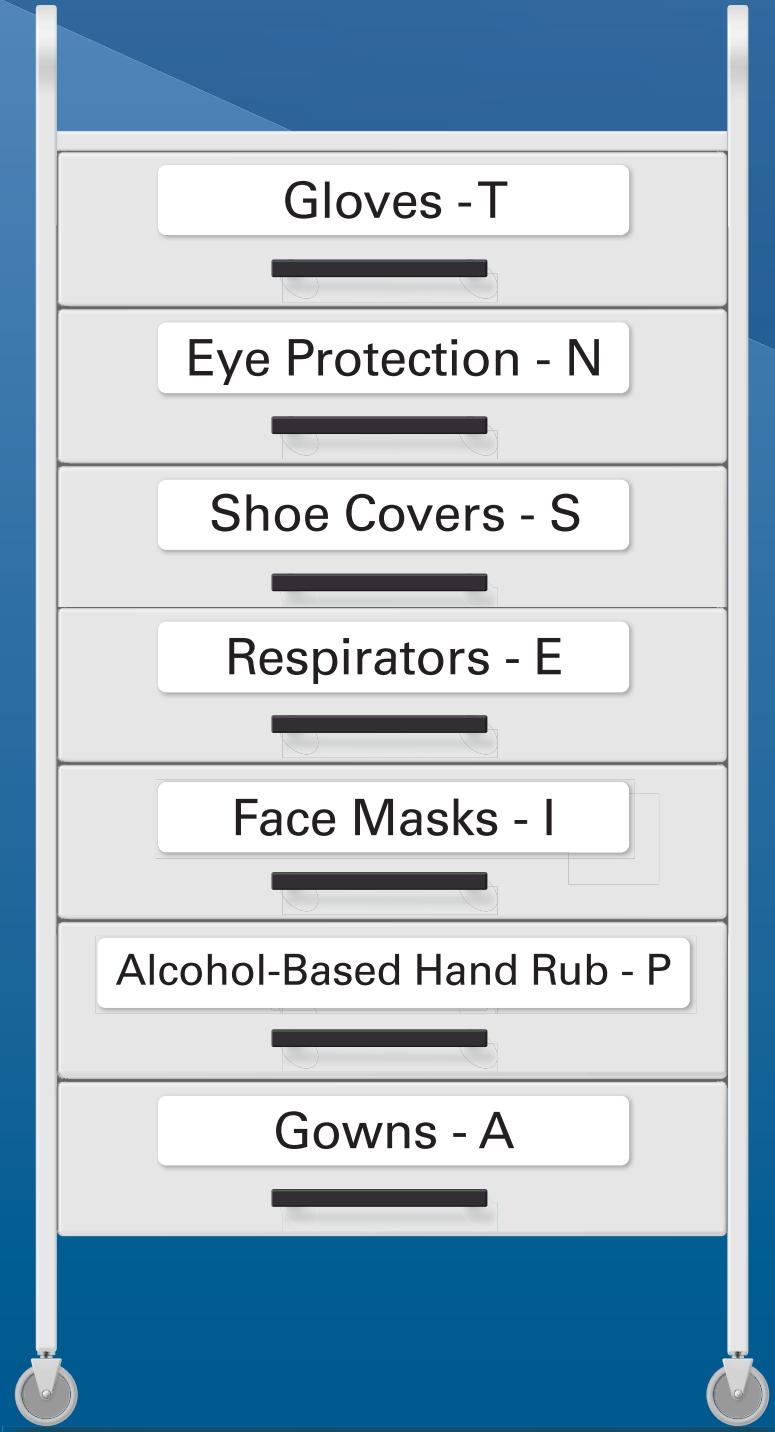
**Use dedicated or disposable equipment.  
Clean and disinfect reusable equipment before use on another person.**



**U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention**



# PPE Supply Cart



**KEEP OUR  
PATIENTS  
SAFE!**

Always  
take proper  
precautions  
before entering  
patient rooms.



**ESCAPE  
FROM THE  
DEADLY  
PATHOGEN**

# PUZZLE 2 – PATIENT EDUCATION

## Facilitator Actions:

Once all players are inside the room, say the following.



Welcome to Ms. Sickly's room. In here you're going to be practicing six strategies for preventing transmission of pathogens. You've already mastered the first, correctly putting on PPE. Take a look around the room for your next task. And remember you'll need a smart phone!

## Player Actions:

Players will look around the room for clues. They must notice the QR code on the *C. auris* patient information sheet and use their cell phone to scan the QR code (The blue box below shows the web page they will see on their phone.)

## Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

## Hint Examples:

- The patient board might provide a clue or two on what to do next.
- While we might have all been trained on how to prevent transmission, I have to wonder if the patient knows what to do?
- The camera on your phone might come in handy if you find a QR code somewhere.

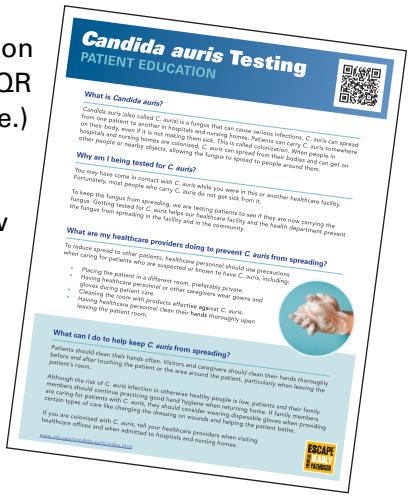


## Patient Education Web Page

Link: <https://viptc.vcu.edu/patient-education/>

The nurse that was here earlier collected a sample from Ms. Sickly's skin to screen for *C. auris*. Unfortunately, the nurse had to leave without educating the patient on why she was being screened and what Ms. Sickly should do while the sample is being processed.

As a team, determine what information should be provided to Ms. Sickly. Choose one or more members of your team to read the patient education information to Ms. Sickly.



**Candida auris Testing  
PATIENT EDUCATION**

**What is *Candida auris*?**

*Candida auris* is a fungus that can cause serious infections. *C. auris* can spread from one patient to another in hospitals and nursing homes. Patients carrying *C. auris* can get sick if they touch it. It is not made by people. *C. auris* can spread by direct contact with other people or nearby objects, allowing it to spread to people around them.

**Why am I being tested for *C. auris*?**

You may have come in contact with *C. auris* while you were in this or another healthcare facility. You may have come in contact with people who carry *C. auris* do not get sick from it.

To keep the fungus from spreading, we are testing patients to see if they are now carrying the fungus. Getting tested for *C. auris* is part of our healthcare facility and the health department prevent the fungus from spreading in the facility and the community.

**What are my healthcare providers doing to prevent *C. auris* from spreading?**

To reduce spread to other patients, healthcare personnel should use precautions when caring for patients who are known or believed to have *C. auris*, including:

- Moving the patient in a different room, preferably private.
- Wearing a mask or respirator or other personal protective equipment and gloves during patient care.
- Cleaning and disinfecting with products effective against *C. auris*.
- Having healthcare personnel clean their hands thoroughly upon leaving the patient room.

**What can I do to help keep *C. auris* from spreading?**

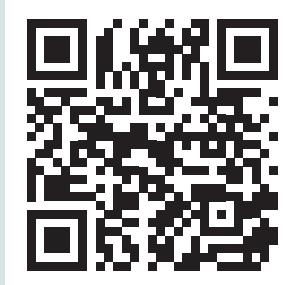
Patients should clean their hands often. Visitors and caregivers should clean their hands thoroughly before and after touching the patient or the area around the patient, particularly when leaving the patient room.

Although the risk of *C. auris* infection in otherwise healthy people is low, patients and their family members should continue to use good hand hygiene when returning home. If family members are caring for patients with *C. auris*, they should use single-use gloves when changing dressings or providing certain types of care, such as changing the dressing on wounds and caring for the patient's bath.

If you are colonized with *C. auris*, tell your healthcare providers when visiting healthcare offices and when admitted to hospitals and nursing homes.

<https://viptc.vcu.edu/patient-education/>

**ESCAPE ROOM**



**Player Actions:**

Either one or more players may read all the patient education information, or if needed, the facilitator may take over reading. If they decide to only read part of the patient education form, the facilitator may ask their reasoning and give feedback on their decision.

**Facilitator Actions:**

Once the players have successfully educated the patient, say the following. (*Note: You may need to repeat the last paragraph. This is not a hint and should not count against their time.*)



*Thank you for educating Ms. Sickly on *C. auris* and how to prevent transmission. It takes all of us, including the patient, to stop pathogens like *Candida auris*.*

*For your next task you might need a 3-digit code. Here's a free hint: I'm sure somewhere around here you'll find the 2017 case count for *C. auris*. Perhaps that will help?*

**Player Actions:**

Players will have to notice the case counts located on the Case File and locate the locked bag with a 3-digit combination lock. The case count for 2017 is **173**. Those digits can be used to open the first locked bag.

**Facilitator Actions:**

Provide a hint if the players request one. Remember to make a note of how many hints they use!

**Hint Examples:**

- Perhaps look for something around here that has a graph of clinical cases over time for *C. auris*?
- The case file had some interesting information on *C. auris*.
- A 3-digit code might be used to unlock something. Maybe look around the room again?

# ***Candida auris* Testing**

## **PATIENT EDUCATION**



### **What is *Candida auris*?**

*Candida auris* (also called *C. auris*) is a fungus that can cause serious infections. *C. auris* can spread from one patient to another in hospitals and nursing homes. Patients can carry *C. auris* somewhere on their body, even if it is not making them sick. This is called colonization. When people in hospitals and nursing homes are colonized, *C. auris* can spread from their bodies and can get on other people or nearby objects, allowing the fungus to spread to people around them.

### **Why am I being tested for *C. auris*?**

You may have come in contact with *C. auris* while you were in this or another healthcare facility. Fortunately, most people who carry *C. auris* do not get sick from it.

To keep the fungus from spreading, we are testing patients to see if they are now carrying the fungus. Getting tested for *C. auris* helps our healthcare facility and the health department prevent the fungus from spreading in the facility and in the community.

### **What are my healthcare providers doing to prevent *C. auris* from spreading?**

To reduce spread to other patients, healthcare personnel should use precautions when caring for patients who are suspected or known to have *C. auris*, including:

- Placing the patient in a different room, preferably private.
- Having healthcare personnel or other caregivers wear gowns and gloves during patient care.
- Cleaning the room with products effective against *C. auris*.
- Having healthcare personnel clean their hands thoroughly upon leaving the patient room.



### **What can I do to help keep *C. auris* from spreading?**

Patients should clean their hands often. Visitors and caregivers should clean their hands thoroughly before and after touching the patient or the area around the patient, particularly when leaving the patient's room.

Although the risk of *C. auris* infection in otherwise healthy people is low, patients and their family members should continue practicing good hand hygiene when returning home. If family members are caring for patients with *C. auris*, they should consider wearing disposable gloves when providing certain types of care like changing the dressing on wounds and helping the patient bathe.

If you are colonized with *C. auris*, tell your healthcare providers when visiting healthcare offices and when admitted to hospitals and nursing homes.

[www.cdc.gov/candida-auris/index.html](http://www.cdc.gov/candida-auris/index.html)



**LOCKED BAG #1****Combination: 173****Inside the bag players will find:**

- Splash Zone word search
- Environmental cleaning check list
- Black light
- Highlighter
- Pen

Facilitators may step in to assist players with the combination locks if necessary. (*This is not a hint and should not count against their time.*)



# PUZZLE 3 – SPLASH ZONE RISKS

## Facilitator Actions:

Once players have opened the locked bag, say the following:



*You'll want a phone again for this next puzzle. And don't forget, clues are all around us! (Point to posters on the walls.)*

## Facilitator Actions:

Players will not know what to do with the environmental cleaning checklist or the black light yet, but should see the QR code on the word search puzzle and start there. Scanning the QR code will lead to instructions for their next task.

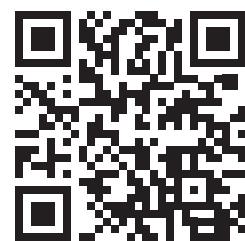


### Splash Zone Web Page

Link: <https://viptc.vcu.edu/splash-zone/>

*Germ Police Bulletin: URGENT ALERT! Candida auris is trying to get in the room! We know from prior break-ins that not even locked doors can stop him!*

*Identify the 9th word of the hidden message and you'll be one step closer to stopping the spread!*



| AVOID       | WASTE      | SAFE          |
|-------------|------------|---------------|
| ITEMS       | EQUIPMENT  | KEEPING       |
| PREPARE     | FAUCET     | CLEAR         |
| THREE       | PERSONAL   | BEVERAGES     |
| SINK        | SPACE      | CLEAN         |
| DON'T       | SUPPLIES   | DISINFECT     |
| MEDICATIONS | STOP       | DRAIN         |
| SPLASH      | STAY       | EVERY         |
| ZONE        | SPREAD     | STORING       |
| POURING     | INSTALLING | DISCARDING    |
| PATIENT     | STORING    | DRAIN         |
| SURFACES    | GUARDS     | CONTAMINATION |

“CLEAR” links to the Splash Zone Part 2 web page. All others link to Wrong Answer web page.

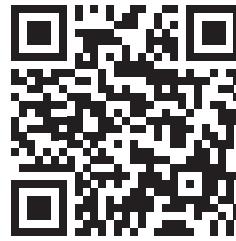


### Wrong Answer Web Page

Link: <https://iptc.vcu.edu/wrong-answer/>

### WRONG ANSWER!

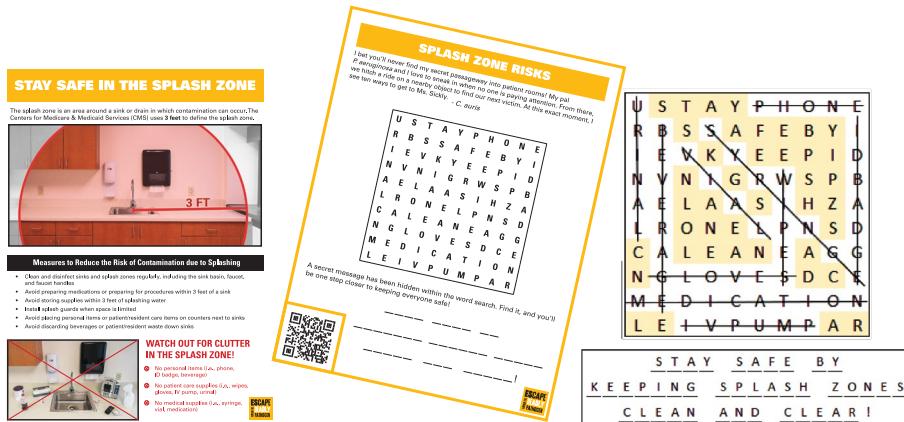
Go back and try again.



### Player Actions:

Players will need to recognize that the word search puzzle must be solved in order to move on. For the word search puzzle, players will have to look on the Splash Zone poster to find the list of items that should not be placed in the splash zone. Once all 10 items are crossed off, the unused letters will spell out a message, "Stay safe by keeping splash zones clean and clear."

Players will need to identify the ninth word in the message (CLEAR). They must then go back to the web page and click on the word CLEAR. That will lead them to their next task.



### Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

### Hint Examples:

- The sink in the Splash Zone poster sure does look messy!
- I like how the Splash Zone poster gives examples of medical supplies, patient care items and personal items that should never be placed near the sink.
- What letters are left after crossing off all the splash zone items?
- The ninth word? If I'm counting right there are only nine words in the phrase. I think it's pretty CLEAR which word you should click on.
- Don't forget where you started with this puzzle. Was there something that needed to be done on the web page?



### **Splash Zone Part 2 Web Page**

Link: <https://viptc.vcu.edu/splash-zone-part-2/>

*Nicely done! Keeping splash zones clean and clear is important to preventing the spread of pathogens. Unfortunately, not all cleaning products are effective at reducing *C. auris*.*

*Which EPA list shows disinfectants that are effective against *Candida auris*?*



|               |               |
|---------------|---------------|
| <b>List A</b> | <b>List M</b> |
| <b>List B</b> | <b>List N</b> |
| <b>List G</b> | <b>List O</b> |
| <b>List H</b> | <b>List P</b> |
| <b>List J</b> | <b>List Q</b> |
| <b>List K</b> | <b>List S</b> |
| <b>List L</b> |               |

**“List P” links to the Environmental Cleaning web page.  
All others link to Wrong Answer web page.**

#### **Player Actions:**

Players will now have to identify the correct EPA list for *C. auris* disinfectants, List P. They can find this answer within the environmental cleaning checklist. Clicking LIST P on the web page will lead them to their next task.

#### **Facilitator Actions:**

Provide a hint if the players request one. Remember to make a note of how many hints they use!

#### **Hint Examples:**

- What else was in the locked bag? Maybe something in there will help you answer the question.
- I think I see an EPA list mentioned on the Checklist for Daily Environmental Cleaning.

## SPLASH ZONE RISKS

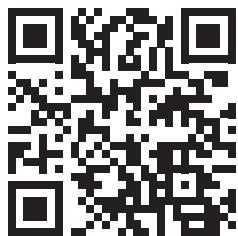
I bet you'll never find my secret passageway into patient rooms! My pal *P. aeruginosa* and I love to sneak in when no one is paying attention. From there, we hitch a ride on a nearby object to find our next victim. At this exact moment, I see ten ways to get to Ms. Sickly. - *C. auris*



A secret message has been hidden within the word search. Find it, and you'll be one step closer to keeping everyone safe!

----- ----- -----

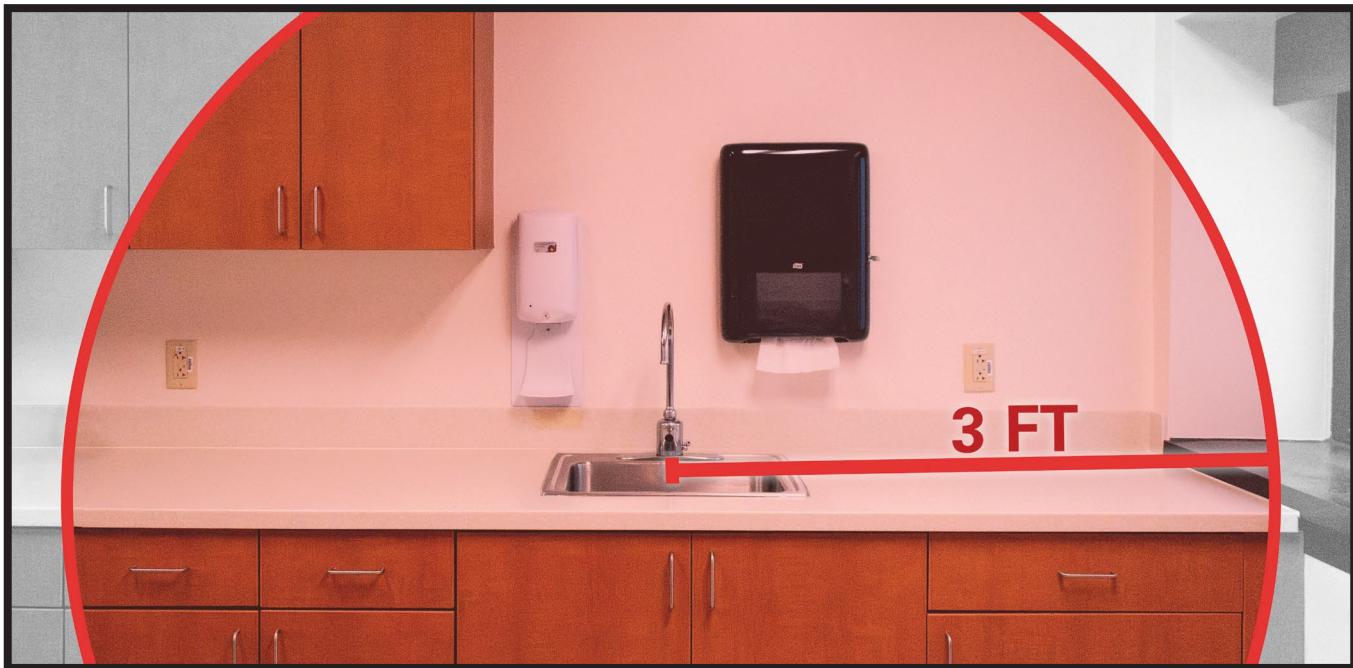
----- ----- -----  
----- ----- ----- !



ESCAPE  
FROM THE  
DEADLY  
PATHOGEN

# STAY SAFE IN THE SPLASH ZONE

The splash zone is an area around a sink or drain in which contamination can occur. The Centers for Medicare & Medicaid Services (CMS) uses **3 feet** to define the splash zone.



## Measures to Reduce the Risk of Contamination due to Splashing

- Clean and disinfect sinks and splash zones regularly, including the sink basin, faucet, and faucet handles
- Avoid preparing medications or preparing for procedures within 3 feet of a sink
- Avoid storing supplies within 3 feet of splashing water
- Install splash guards when space is limited
- Avoid placing personal items or patient/resident care items on counters next to sinks
- Avoid discarding beverages or patient/resident waste down sinks



## WATCH OUT FOR CLUTTER IN THE SPLASH ZONE!

- ⊗ No personal items (i.e., phone, ID badge, beverage)
- ⊗ No patient care supplies (i.e., wipes, gloves, IV pump, urinal)
- ⊗ No medical supplies (i.e., syringe, vial, medication)

# PUZZLE 4 – ENVIRONMENTAL CLEANING & DISINFECTION



## Player Actions:

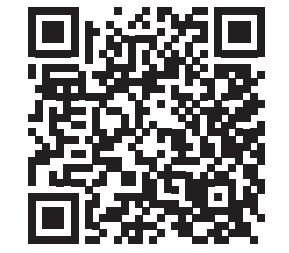
Prior to the game, the facilitator will have placed Glo Germ fingerprints on five different high-touch surfaces in the room for a total of nine fingerprints. Players are now tasked with finding and counting the number of fingerprints using the black light. They can refer to the Checklist for Daily Environmental Cleaning for a list of high-touch surfaces.



## *Environmental Cleaning Web Page*

Link: <https://viptc.vcu.edu/environmental-cleaning/>

*It appears everyone had to rush out rather hurriedly! EVS staff missed cleaning and disinfecting FIVE high-touch surfaces. Use the black light to identify which 5 surfaces were missed. Solve the puzzle below to keep one step ahead of C. auris... and his friends!*



- Multiply: The number of fingerprints found times the number of items in the splash zone
- Add: The 2022 case count plus the number from the previous product
- Subtract: Take the last sum and subtract the size of the splash zone

## Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

## Hint Examples:

- Don't forget, you're looking for FIVE high-touch surfaces that have been left uncleaned.
- I think I saw a list of high-touch surfaces in the Checklist for Daily Environmental Cleaning.
- What was the math problem you need to solve? Maybe that will help guide you.

### Player Actions:

Once all fingerprints have been identified, players can complete the math puzzle. They will need to refer to the Case File for the 2022 case count (2,377), and the Splash Zone poster for the number of items in the splash zone (10) and the size of the splash zone (3). After completing the math problem, they will need to recognize that the 4-digit solution is the combination to the second locked bag. Players will then need to find and unlock that bag.

- Multiply: The number of fingerprints (9) times the number of items in the splash zone (10)
- Add: The 2022 case count (2,377) plus the number from the previous product (90)
- Subtract: Take the last sum (2,467) and subtract the size of the splash zone (3)

$$\begin{aligned}
 9 \times 10 &= 90 \\
 2,377 + 90 &= 2,467 \\
 2,467 - 3 &= 2,464
 \end{aligned}$$

Lock combination is 2,464



**STAY SAFE IN THE SPLASH ZONE**

The splash zone is an area around a sink or drain in which contamination can occur. The Centers for Medicare & Medicaid Services (CMS) uses 3 feet to define the splash zone.



**Measures to Reduce the Risk of Contamination due to Splashing**

- Clean and disinfect sinks and splash zones regularly, including the sink basin, faucet and faucet handles.
- Avoid touching medications or preparing for procedures within 3 feet of a sink
- Avoid storing supplies within 3 feet of splashing water
- Install splash guards when space is limited
- Avoid placing personal items or patient/resident care items on counters next to sinks
- Avoid discarding beverages or patient/resident waste down sinks

**WATCH OUT FOR CLUTTER IN THE SPLASH ZONE!**

- No personal items (i.e., phone, ID badge, beverage)
- No patient care supplies (i.e., wipes, alcohol, medications, sharps)
- No medical supplies (i.e., syringe, vial, medication)

**CASE FILE: ESCAPE FROM THE DEADLY PATHOGEN**

**WANTED:** *Candida auris* (aka *C. auris*)



**DESCRIPTION:**

- A new type of fungal discovered in 2009 that behaves more like a bacteria
- Spreads between multiple, if not all, antifungal drugs
- Can live only in healthcare environments
- Paves the way for other healthcare-associated infections with more drug resistance
- Paves the way for other healthcare-associated infections with more drug resistance
- Highly infectious colonization with no known disinfection method
- Often confused with other *Candida* species

**OUTSTANDING WARRANTS:**

- CMS has issued a recall for certain dental instruments because of its resistance to common disinfectants
- Highly infectious due to its ability to spread easily in healthcare environment

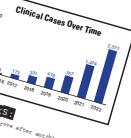
**LAST KNOWN LOCATIONS:**

- Hospitals and healthcare facilities and procedure rooms
- Highly infectious due to its ability to spread easily in healthcare environment

**SUSPECTED CRIMES:**

- Spreading cases in the United States since 2011
- Causing numerous infections in hospitals and nursing homes
- Causing at-risk patients with serious medical conditions to die
- Causing at-risk patients with serious medical conditions to die
- Causing at-risk patients with serious medical conditions to die
- Causing at-risk patients with serious medical conditions to die

**Clinical Cases Over Time**



**CHARACTERISTIC OR IDENTIFYING MARKS:**

- No distinct color or smell
- No expected symptoms (i.e., rash, fever, chills) that don't improve after antibiotic treatment

**KNOW ASSOCIATES:**

- Other existing respiratory organisms

### Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

Please note: If they have all the correct information, but are struggling with the math, you may assist. This is not a hint and should not count against their time.

### Hint Examples:

- Are you sure you found all the fingerprints? Maybe go back and look again.
- How many words did you find in the Splash Zone word search puzzle?
- I remember we referred to case counts in one of the other puzzles. Where did we find those?
- The CMS has defined the width of splash zones. You might be able to find that information in the Splash Zone poster.
- You might want to check your math again.
- The answer is 4 digits. I wonder if that could be used to unlock something? Maybe look around the room again?

# ENVIRONMENTAL CLEANING & DISINFECTION FOR *CANDIDA AURIS*

## Checklist for Daily Environmental Cleaning

### Environmental Facts for *Candida auris*

*Candida auris* (*C. auris*) is a species of yeast classified by the Centers for Disease Control and Prevention (CDC) as an emerging organism of epidemiological concern. *C. auris* can survive on surfaces for several weeks. Close attention to environmental and device disinfection, thorough hand hygiene, and wearing proper PPE are needed to stop transmission and prevent the spread of this organism. Surfaces containing *C. auris* need to be disinfected with specific chemicals, as *C. auris* is naturally resistant to some disinfectants.

### Before cleaning:

- ✓ Use products on EPA List P (if these are not available, use sporicidal products)
- ✓ Know product wet time
- ✓ Perform thorough routine (at least daily) and terminal cleaning and disinfection of patient room and care areas
- ✓ Clean and disinfect shared equipment after use (e.g., X-ray machines, scales, ventilators); label and store away from dirty equipment
- ✓ Terminally clean and disinfect transport vehicles and equipment after use
- ✓ When cleaning multiple rooms, clean *C. auris* rooms last
- ✓ Disinfect all surfaces of items that come out of the room, i.e., spray bottles or cleaning canisters, including any shared medical equipment

| DAILY CLEANING TASK  | DONE?  | COMMENTS/PROBLEMS |
|--|--|-------------------|
| Put on personal protective equipment (PPE)                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Use clean cloths, solution, and mop                              | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Remove dirty/used items  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Remove curtains if visibly soiled (consider disposable curtains) | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Trash container  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Empty  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Replace liner  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Disinfect, if needed   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Sharps container   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Replace if three-fourths full                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Replace, if needed   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Hand soap  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Paper towels   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Toilet paper   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Facial tissues   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Work from top to bottom  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| High dusting (do not dust over patients)                         | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Vents  | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Lights   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Pictures   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| TV and wires   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |
| Window sills   | <input type="checkbox"/> Yes <input type="checkbox"/> No |                   |

| DAILY CLEANING TASK  | DONE?                        |                             | COMMENTS/PROBLEMS |
|--|------------------------------|-----------------------------|-------------------|
| Disinfect high-touch surfaces in room  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Door knobs   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Door surface   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Bed rails  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Tray tables  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Bedside tables, including drawers & handles  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Telephones   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Light switches (room and bathroom)   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| IV pole (grab area)  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Outside surfaces of medical equipment (using approved procedure; including IV pump controls, multi-module monitor and controls, and ventilator controls) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| TV remotes   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Hospital bed remotes   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Call buttons   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Chairs and other furniture   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Room sink  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Other horizontal surfaces  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Disinfect bathroom   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Light switches   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Door knob  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Hand rails   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Sinks & faucets  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Tub/shower   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Mirror   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Toilet seats (including any bedpans)   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Flush handles  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Bedpan cleaner   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Floor  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Dust mop   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Wet mop  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Wet mop head in disinfectant   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Starting at far side of room, mop half   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Mop bathroom shower floor  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Mop bathroom floor   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |
| Flip mop head, mop rest of room  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |                   |

### Resources:

The Joint Commission Big Book of Checklists for Infection Prevention and Control  
[https://www.jcrinc.com/what-we-offer/publications/#t\\_BooksandEbooks](https://www.jcrinc.com/what-we-offer/publications/#t_BooksandEbooks)

Lists of antimicrobial disinfectants registered by the U.S. Environmental Protection Agency (EPA)  
<https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>

Infection control guidance for Candida auris from the U.S. Centers for Disease Control and Prevention (CDC)  
<https://www.cdc.gov/candida-auris/index.html>

**Locked Bag #2  
Combination: 2464**

### **Inside the bag players will find:**

- My 5 Moments for Hand Hygiene matching game & matching cards
  - My 5 Moments cryptograph
  - Dry-erase marker

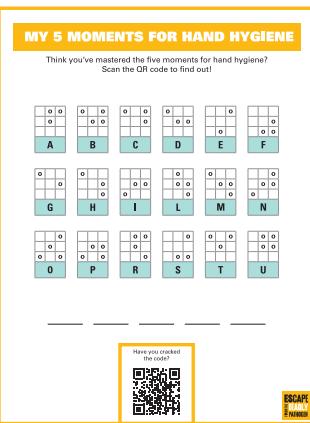
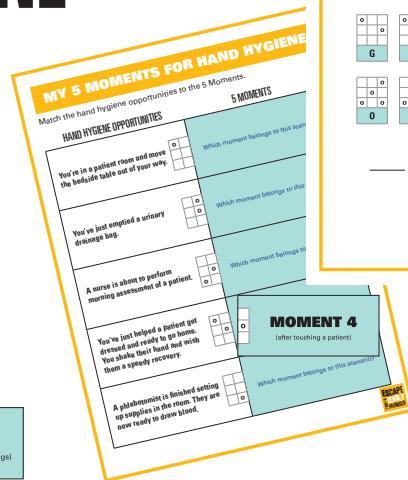
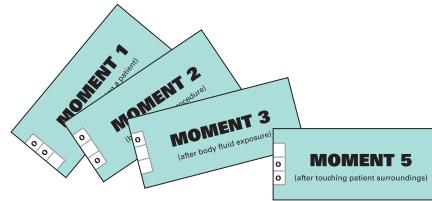
Facilitators may step in to assist players with the combination locks if necessary. (This is not a hint and should not count against their time.)



# PUZZLE 5 – MY 5 MOMENTS FOR HAND HYGIENE

## Player Actions:

Once players open the second locked bag, they must first recognize that the matching game needs to be completed before they can use the QR code on the cryptograph document.



## My 5 Moments Web Page

Link: <https://viptc.vcu.edu/my-5-moments/>

Click on the correct word below to see if you've accurately matched the hand hygiene opportunities to the 5 Moments.



about  
human  
globe  
pages  
great  
share  
hands  
price  
brief  
crime  
force

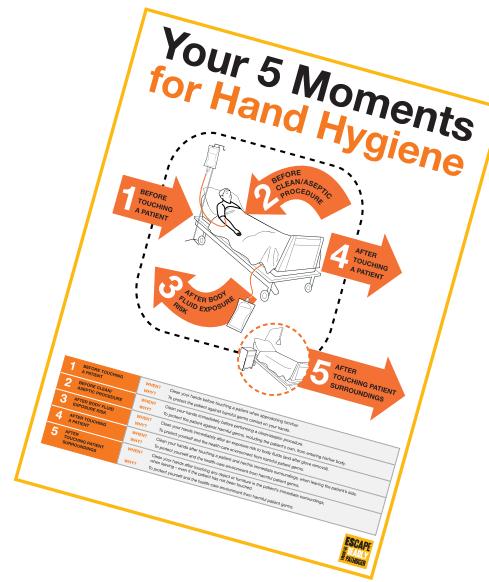
human  
death  
lines  
pilot  
third  
chief  
helps  
purge  
cargo  
fiber

“hands” links to the  
Safely Removing PPE  
web page.  
All others link to  
Wrong Answer  
web page.

### Player Actions:

Using the My 5 Moments poster for guidance and the My 5 Moments matching cards, players will need to match the hand hygiene opportunities to each of the 5 moments. Once the cards are matched to the hand hygiene opportunities, players will see a completed series of 3x3 grids.

|  |   |   |   |   |   |   |  |  |
|--|---|---|---|---|---|---|--|--|
| You're in a patient room and move the bedside table out of your way.   | <table border="1"><tr><td>o</td><td></td></tr><tr><td>o</td><td></td></tr><tr><td>o</td><td></td></tr></table>  | o |   | o |   | o |  | <b>MOMENT 5</b><br>(after touching patient surroundings) |
| o  |   |   |   |   |   |   |  |  |
| o  |   |   |   |   |   |   |  |  |
| o  |   |   |   |   |   |   |  |  |
| You've just emptied a urinary drainage bag.  | <table border="1"><tr><td>o</td><td>o</td></tr><tr><td>o</td><td></td></tr><tr><td></td><td></td></tr></table>  | o | o | o |   |   |  | <b>MOMENT 3</b><br>(after body fluid exposure)           |
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|  |   |   |   |   |   |   |  |  |
| A nurse is about to perform morning assessment of a patient.   | <table border="1"><tr><td></td><td>o</td></tr><tr><td>o</td><td>o</td></tr><tr><td>o</td><td></td></tr></table> |   | o | o | o | o |  | <b>MOMENT 1</b><br>(before touching a patient)           |
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| o  |   |   |   |   |   |   |  |  |
| You've just helped a patient get dressed and ready to go home. You shake their hand and wish them a speedy recovery. | <table border="1"><tr><td>o</td><td></td></tr><tr><td>o</td><td>o</td></tr><tr><td></td><td></td></tr></table>  | o |   | o | o |   |  | <b>MOMENT 4</b><br>(after touching a patient)            |
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|  |   |   |   |   |   |   |  |  |
| A phlebotomist is finished setting up supplies in the room. They are now ready to draw blood.                        | <table border="1"><tr><td></td><td>o</td></tr><tr><td>o</td><td>o</td></tr><tr><td></td><td></td></tr></table>  |   | o | o | o |   |  | <b>MOMENT 2</b><br>(before aseptic procedure)            |
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|  |   |   |   |   |   |   |  |  |



### Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

### Hint Examples:

- If you're feeling stuck, maybe look around the room to see if there's something that could help give guidance.
- Trying using the process of elimination. Start with the obvious answers and see what's left over.
- The goal of an aseptic procedure is to prevent infections like bloodstream infections.
- You have to touch a patient in order to assess them, right?
- Urine would definitely count as a body fluid.

**Player Actions:**

Working from top to bottom, the players must then translate the 3x3 grids using the cryptograph. When they think they have the correct solution, players will scan the QR code and click on the code word. Choosing the correct word (HANDS) will lead to their next task.

**Facilitator Actions:**

Provide a hint if the players request one. Remember to make a note of how many hints they use!

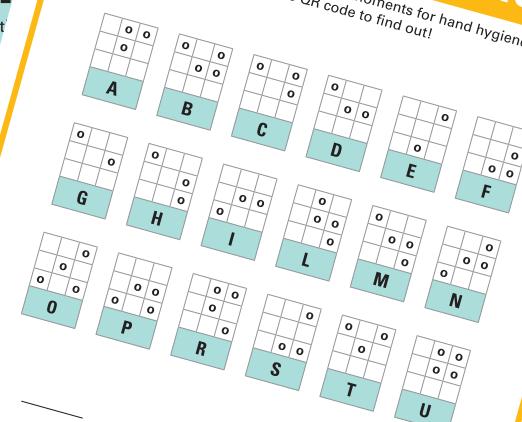
**Hint Examples:**

- So according to the cryptograph, if I saw a grid with one dot in the top left corner and a second dot in the middle of the right column, that would be a "G".
- Try decoding the grids starting at the top and working downwards.
- To prevent transmission of germs, it's important to clean your \_\_\_ with either soap and water or alcohol-based hand rub.

|   |  |
|---|--|
| <p>You're in a patient room and move the bedside table out of your way.</p>    | <p><b>MOMENT 5</b><br/>(after touching patient surroundings)</p> |
| <p>You've just emptied a urinary drainage bag.</p>    | <p><b>MOMENT 3</b><br/>(after body fluid exposure)</p>           |
| <p>A nurse is about to perform morning assessment of a patient.</p>    | <p><b>MOMENT 1</b><br/>(before touching a patient)</p>           |
| <p>You've just helped a patient get dressed and ready to go home. You shake their hand and wish them a speedy recovery.</p>  | <p><b>MOMENT 2</b><br/>(after touching a patient)</p>            |
| <p>A phlebotomist is finished setting up supplies in the room. They are now ready to draw blood.</p>                         | <p><b>MOMENT 4</b><br/>(before aseptic technique)</p>            |

**MY 5 MOMENTS FOR HAND HYGIENE**

Think you've mastered the five moments for hand hygiene?  
Scan the QR code to find out!

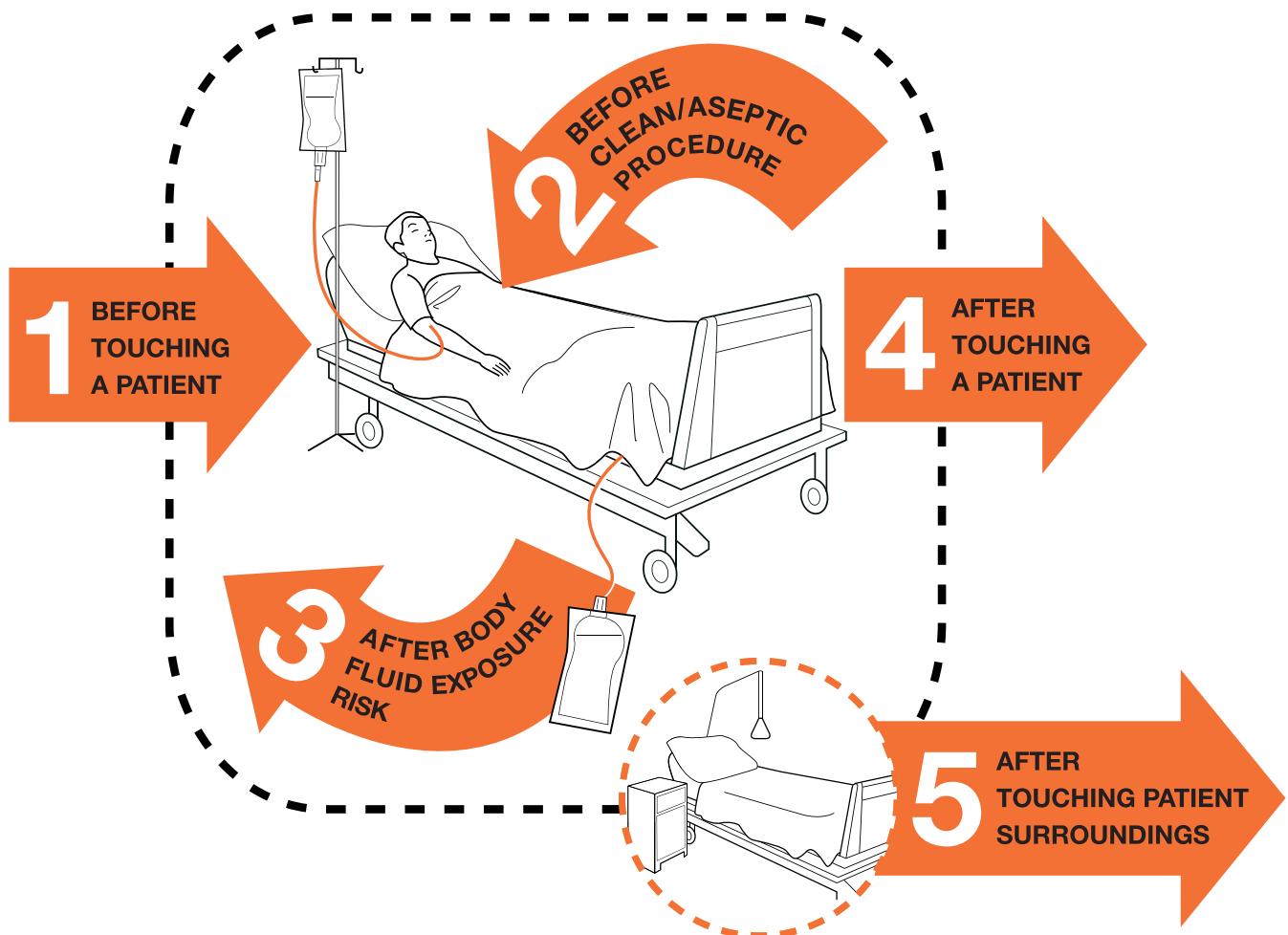


Have you cracked the code?



ESCAPE  
from  
PATIENT

# Your 5 Moments for Hand Hygiene



|   |   |
|---|---|
| <b>1</b><br>BEFORE TOUCHING A PATIENT           | <b>WHEN?</b><br>Clean your hands before touching a patient when approaching him/her.<br><b>WHY?</b><br>To protect the patient against harmful germs carried on your hands.  |
| <b>2</b><br>BEFORE CLEAN/ASEPTIC PROCEDURE      | <b>WHEN?</b><br>Clean your hands immediately before performing a clean/aseptic procedure.<br><b>WHY?</b><br>To protect the patient against harmful germs, including the patient's own, from entering his/her body.  |
| <b>3</b><br>AFTER BODY FLUID EXPOSURE RISK      | <b>WHEN?</b><br>Clean your hands immediately after an exposure risk to body fluids (and after glove removal).<br><b>WHY?</b><br>To protect yourself and the health-care environment from harmful patient germs.   |
| <b>4</b><br>AFTER TOUCHING A PATIENT            | <b>WHEN?</b><br>Clean your hands after touching a patient and her/his immediate surroundings, when leaving the patient's side.<br><b>WHY?</b><br>To protect yourself and the health-care environment from harmful patient germs.  |
| <b>5</b><br>AFTER TOUCHING PATIENT SURROUNDINGS | <b>WHEN?</b><br>Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving – even if the patient has not been touched.<br><b>WHY?</b><br>To protect yourself and the health-care environment from harmful patient germs. |

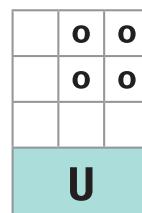
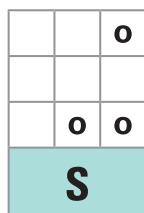
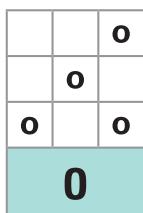
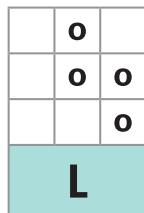
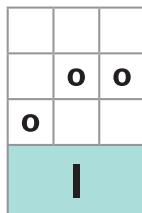
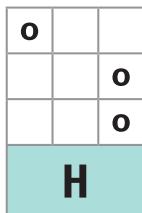
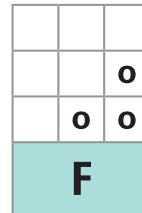
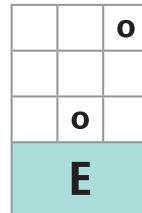
# MY 5 MOMENTS FOR HAND HYGIENE

Match the hand hygiene opportunities to the 5 Moments.

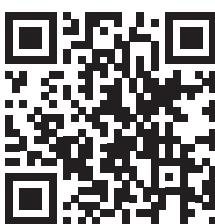
| HAND HYGIENE OPPORTUNITIES   | 5 MOMENTS  |   |   |  |   |  |   |  |  |
|--|--|---|---|--|---|--|---|--|--|
| <p><b>You're in a patient room and move the bedside table out of your way.</b></p>   | <p>Which moment belongs to this scenario?</p> <table border="1"><tr><td>o</td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>                    | o |   |  |   |  |   |  |  |
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| <p><b>You've just emptied a urinary drainage bag.</b></p>  | <p>Which moment belongs to this scenario?</p> <table border="1"><tr><td></td><td>o</td></tr><tr><td></td><td>o</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>                   |   | o |  | o |  |   |  |  |
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| <p><b>A nurse is about to perform morning assessment of a patient.</b></p>   | <p>Which moment belongs to this scenario?</p> <table border="1"><tr><td></td><td></td></tr><tr><td></td><td>o</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>  |   |   |  | o |  |   |  |  |
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| <p><b>You've just helped a patient get dressed and ready to go home. You shake their hand and wish them a speedy recovery.</b></p> | <p>Which moment belongs to this scenario?</p> <table border="1"><tr><td>o</td><td></td></tr><tr><td></td><td>o</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> | o |   |  | o |  |   |  |  |
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| <p><b>A phlebotomist is finished setting up supplies in the room. They are now ready to draw blood.</b></p>                        | <p>Which moment belongs to this scenario?</p> <table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td>o</td></tr><tr><td></td><td></td></tr></table>  |   |   |  |   |  | o |  |  |
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# MY 5 MOMENTS FOR HAND HYGIENE

Think you've mastered the five moments for hand hygiene?  
Scan the QR code to find out!



Have you cracked  
the code?



# PUZZLE 6 – SAFELY REMOVING PPE

## Player Actions:

Players will now be prompted to correctly answer a series of web-based quiz questions about the safe removal of PPE. Hints should not be needed for this puzzle, except to possibly point out the CDC's How to Safely Remove Personal Protective Equipment poster(s). If players answer incorrectly, they will be led back to the first question and asked to start over. (No penalty if they are clever enough to hit the back button on their browser.)



### ***Safely Removing PPE Question 1 Web Page***

Link: <https://vptc.vcu.edu/doffing/>

*Congratulations! You've successfully mastered the My 5 Moments for Hand Hygiene!*

*Next up, let's talk about PPE again! For this puzzle, you're going to have to successfully navigate a series of questions about the safe removal of PPE. Read them out loud and discuss as a group.*



*Below is the first question. Answer correctly and you'll be helping to stop C. auris from spreading to others. One wrong step though and you'll have to start over.*

Safely removing PPE is important because we don't want to potentially contaminate our clothing, skin, or mucous membranes with pathogens.

**True**

**False**

**"True" leads to the next question.**

**"False" leads to Wrong Answers web page.**



### **Safely Removing PPE Question 2 Web Page**

Link: <https://viptc.vcu.edu/doffing-2/>

*Correct! Don't forget, keeping patients safe is a group effort, so pass the phone to someone else in your group, have them read the question below out loud and discuss as a group.*

When removing PPE, the outside of gloves, goggles, and face shield are considered contaminated.



**True**

**False**

**"True" leads to the next question.**

**"False" leads back to the first question.**



### **Safely Removing PPE Question 3 Web Page**

Link: <https://viptc.vcu.edu/doffing-3/>

*Nice job so far! PPE can easily become contaminated during patient care activities or from interacting with the patient environment.*

*Can you keep it up? Don't forget to keep passing that phone so everyone can participate.*

When removing a gown, the front, sleeves, and inside are considered contaminated.



**True**

**False**

**"False" leads to the next question.**

**"True" leads back to the first question**



### **Safely Removing PPE Question 4 Web Page**

Link: <https://viptc.vcu.edu/doffing-4/>

*Well done! You didn't fall for my trick! The outside of the gown is the area that is considered contaminated, not the inside.*

*Let's see how you do with an even harder question.*

Which of the below would be a correct method for removing gloves?

- A. Slide gloved fingers under a glove at the wrist and peel off, repeat on the other side with the ungloved hand
- B. Pinch the palm area of a gloved hand and peel off, repeat on the other side pinching palm area of the gloved hand with the ungloved hand
- C. Pinch the palm area of a gloved hand and peel off first glove, slide ungloved fingers under the other glove at the wrist and peel off second glove
- D. Slide gloved fingers under the glove at the wrist and peel off first glove, pinch the palm area of other glove with ungloved hand and peel off second glove



**"C" leads to  
the next question.  
All others lead  
back to the  
first question.**



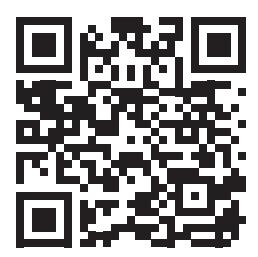
### **Safely Removing PPE Question 5 Web Page**

Link: <https://viptc.vcu.edu/doffing-5/>

*Excellent choice! It's important to remember not to touch "dirty" areas with "clean" hands, or the reverse of that, touching "clean" areas with "dirty" hands.*

*You're so close to the end! Keep going!*

When is it necessary to perform hand hygiene when removing PPE?



1. If your hands get contaminated while removing a piece of PPE
2. Immediately before removing PPE
3. Immediately after removing all PPE

- A. All are correct**
- B. 2 and 3 are correct**
- C. 1 and 3 are correct**
- D. 1 and 2 are correct**

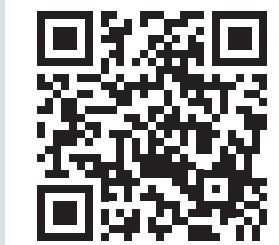
**"C" leads to the next question.**

**All others lead back to the first question.**



### **Safely Removing PPE Question 6 Web Page**

Link: <https://viptc.vcu.edu/doffing-6/>



*Correct! While hand hygiene is never a bad choice, it's not necessary before removing PPE.*

*Last question! Get this one right and you move on to the final task of the escape room.*

PPE should always be removed inside the patient room.

- True**
- False**

**"False" leads to the Putting It All Together web page.**

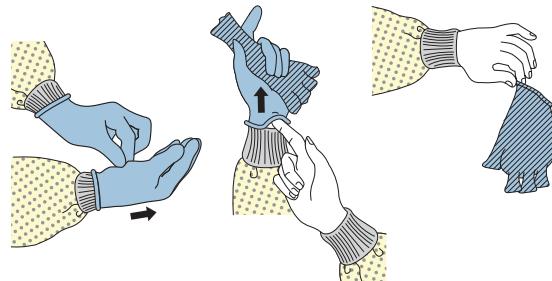
**"True" leads back to the first question.**

# HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

## 1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



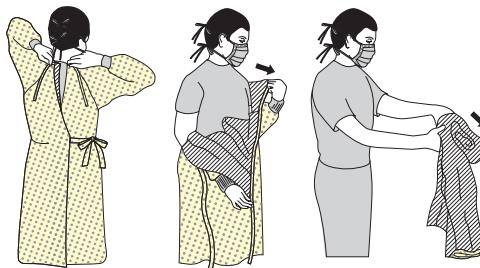
## 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



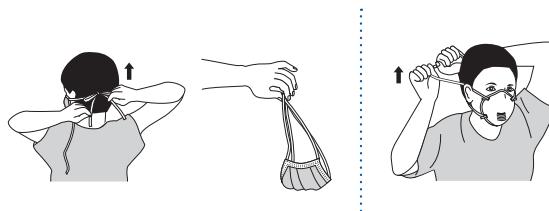
## 3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

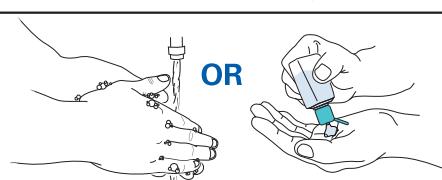


## 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



## 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS  
IF HANDS BECOME CONTAMINATED AND  
IMMEDIATELY AFTER REMOVING ALL PPE**



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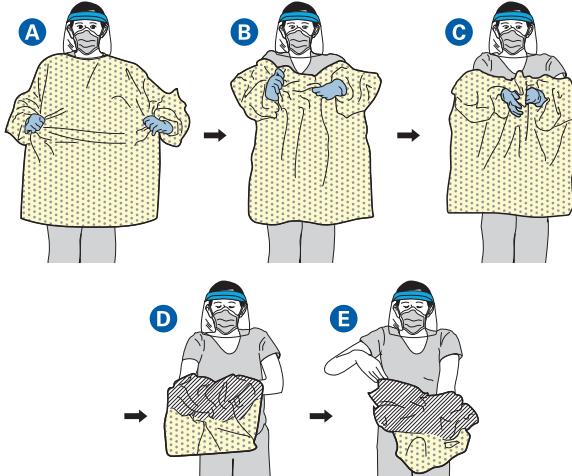


## HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

### 1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



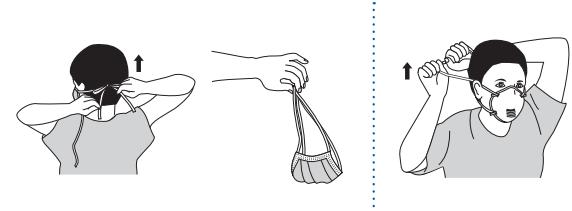
### 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

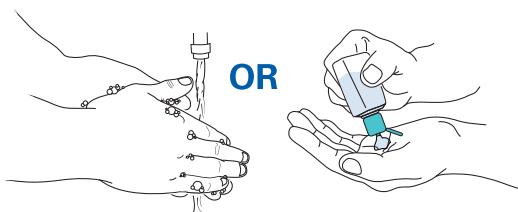


### 3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



### 4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS  
IF HANDS BECOME CONTAMINATED AND  
IMMEDIATELY AFTER REMOVING ALL PPE**



# PUZZLE 7 – PUTTING IT ALL TOGETHER

## Player Actions:

Players will be now be instructed to summarize the six infection prevention strategies they have practiced in this escape room. They can either check off the six strategies on the patient care board, or verbally name the strategies to the facilitator. Clues to the phrasing of the strategies are on the patient board. If desired, facilitators can ask clarifying questions to ensure the players understand all six strategies.

Once this is completed, they will have successfully completed their goal and escaped the room.



## Putting It All Together Web Page

Link: <https://vptc.vcu.edu/putting-it-all-together/>

Amazing work! Thanks for remembering that a respirator needs to be kept on until completely out of the room in order to protect the healthcare worker against airborne organisms.

So far you've been able to prevent *C. auris* from spreading. In even better news, Ms. Sickly's test results are back and she tested negative for *C. auris*! We still need to be careful though – he might still be lurking somewhere in the hospital.

There is one last step before you can leave the room. You'll need to summarize for your facilitator six infection prevention strategies that are key to preventing *C. auris* from spreading.



## Facilitator Actions:

Provide a hint if the players request one. Remember to make a note of how many hints they use!

## Hint Examples:

- Let's see, this all started with correctly putting on PPE. What happened after that?
- If you're feeling stuck, maybe look around the room to see if there's something that could help give guidance.
- I feel like there's a place to write down patient goals. I wonder if there are any other goals written there?

- Correctly putting on PPE
- Patient education
- Identify splash zone risks
- Environmental cleaning
- My 5 Moments for hand hygiene
- Proper removal of PPE

**Facilitator Actions:**

After they correctly list the six strategies for preventing transmission, say the following:



*Congratulations! You have successfully stopped *Candida auris* from getting in or out of the room! And, oh, would you look at that! I just got a news alert on my phone. The Germ Police caught *C. auris* and he's back in custody!*

*I hope he never escapes again, but if he does, we have all the tools we need to prevent him from his goal of world domination!*

**Facilitator Actions:**

**Stop the timer and use the time tracker on the second to last page to calculate the final time.**

Congratulations to you and your team for successfully completing the escape room! Don't forget to reward players! We've provided templates for stickers and a certificate of completion, but feel free to offer candy, a healthy treat, or another reward if preferred.

On behalf of the team here at VIPTC, we hope you enjoyed this experience!



# OUR GOAL IS TO PROVIDE EXCELLENT CARE!

Today is:

Pain Scale:



Care Team:

**Dr. Jane Smith**

**Skyler, RN**

Your Plan for the Day:

**PT at noon**

Goals:

Completed:

Pain Medicine:

1. Correctly put on PPE  YES  NO
2. Patient education  YES  NO
3. Identify splash zone risks  YES  NO
4. Environmental cleaning  YES  NO
5. My 5 Moments for hand hygiene  YES  NO
6. Proper removal of PPE  YES  NO

Other:



**Kate, had to leave! Please provide patient education!**

# FACILITATOR NOTES

Use the space below to keep track of the location of Glo Germ fingerprints and player start and end times.

| HIGH-TOUCH SURFACE | # OF FINGERPRINTS |
|--------------------|-------------------|
| 1.                 |                   |
| 2.                 |                   |
| 3.                 |                   |
| 4.                 |                   |
| 5.                 |                   |
|                    | = 9               |

| COMPLETION TIMER TRACKER                               |   |
|--|---|
| End Time:  | — |
| Start Time:  | — |
| Completion Time:                                       | = |
| Number of hints provided: (subtract 1 minute per hint) | — |
| FINAL TIME:  | = |

# VIRGINIA INFECTION PREVENTION TRAINING CENTER



# VCU

## About VIPTC

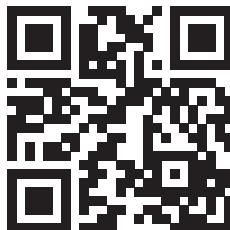
The Virginia Infection Prevention Training Center was created to meet the growing needs of healthcare and congregate care facilities in the areas of infection prevention and control (IPC). Our goal is to work collaboratively with healthcare facilities and public health agencies in order to strengthen infection prevention and control expertise by providing universal IPC training to frontline providers. Education and training on these principles is essential to building capacity in facilities and state agencies in Virginia and beyond.

We would like to thank VDH for their support and partnership. Content such as this would not be possible without funding from the Healthcare-associated Infections and Antimicrobial Resistance (HAI/AR) Program within the Virginia Department of Health.

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