



Department
of Health

***Candida auris* in New York State:**

An Update for NYS Nursing Homes

NYSDOH

December 14, 2017

Outline

- Background
 - *Candida auris*
 - NYSDOH activities to help control *Candida auris*
- Infection Prevention and Control
 - Standard and Contact Precautions
 - Hand Hygiene
 - Correct use of personal protective equipment
 - Cleaning and Disinfection
 - Hand Hygiene

Background

What is *Candida auris*?

(also called *C. auris*)

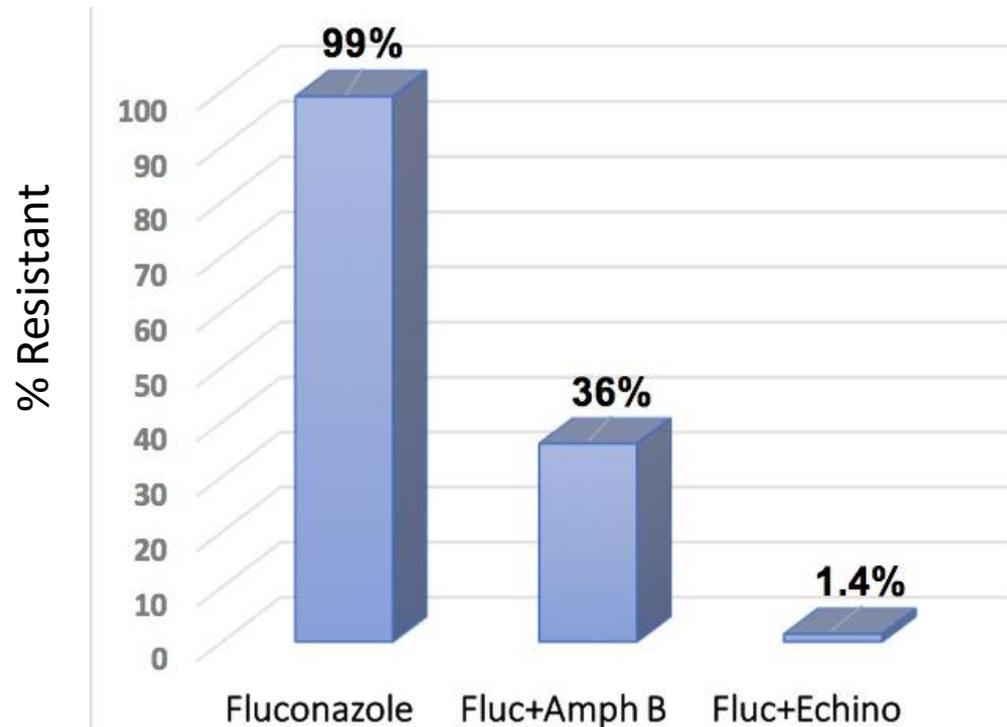
- A fungus (yeast) that infects people who are sick for other reasons
 - Often infects blood
 - Can live on skin even after patients recover
 - Some people have it on their skin or other site but don't get sick (they are "colonized")
- Not the same as the yeast that causes diaper rash, "yeast infections" in women, and "thrush" in the mouth



Why Are We Worried?

- Very rapid emergence since 2009
- It can be difficult to identify in clinical laboratories
- Anti-fungal medicines might not work to treat infections - some isolates have been resistant to all 3 classes of antifungal medications
 - (3 class resistance not seen in NYS, to date)
- It spreads within hospitals, nursing homes, and other healthcare facilities
 - Persistent colonization of residents
 - It can live for many weeks on surfaces and equipment

Antifungal Resistance in *C. auris**



There are currently no standardized breakpoints

**Data from NYSDOH Wadsworth Center*



Department
of Health

Persistent Colonization

- Affected persons remain colonized for undefined but usually lengthy durations
- Remain under Standard and Contact Precautions indefinitely unless clearance documented
- No data and no recommendations for decolonization

Case Counts as of Dec 8, 2017

- 230 patients affected
 - 110 clinical cases (culture collected for clinical management)
 - 124 screening cases (culture collected to detect colonization from asymptomatic contacts)
 - 4 cases double counted (screening cases who later developed clinical infection)
 - Infected persons had other underlying medical conditions

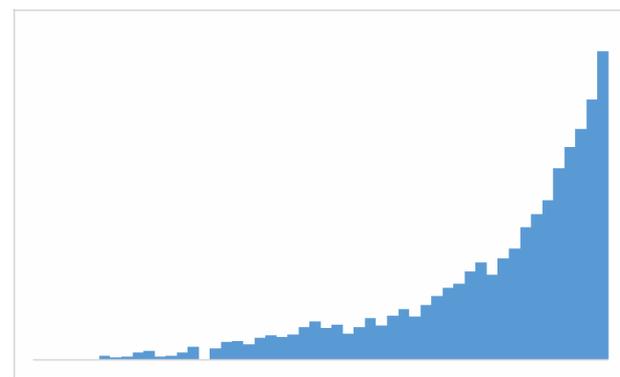
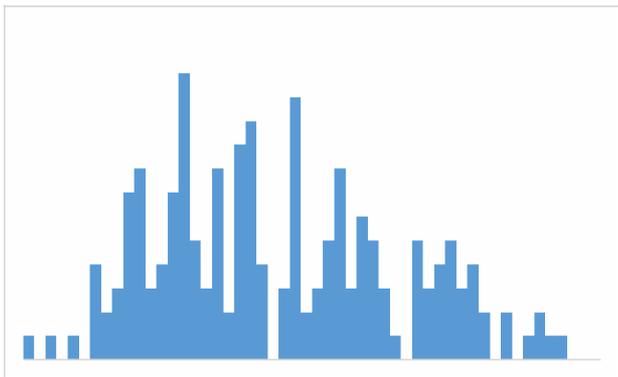
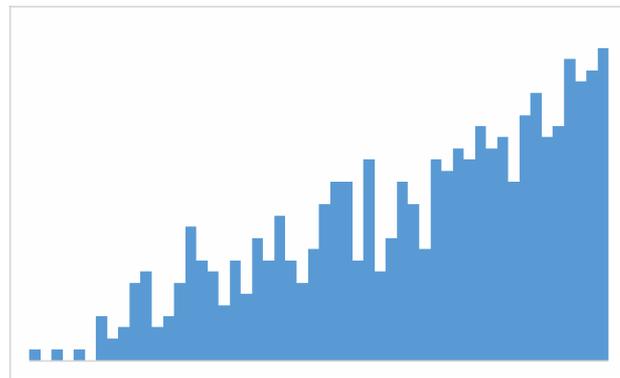
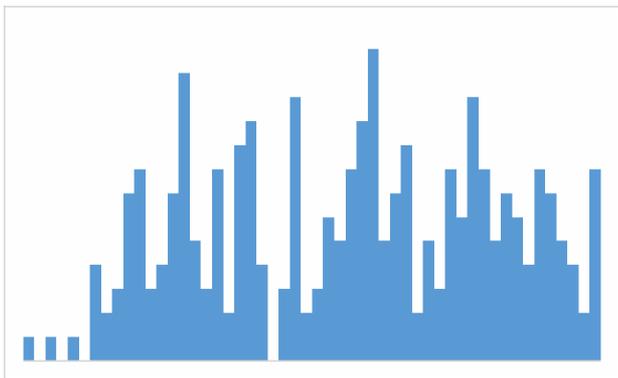
NY Facility Involvement

- Pass through facilities: facility had a patient with *C. auris* in the 90 days before, at or after diagnosis
- Mid-2016 to the present there have been 100 pass-through facilities
 - 40 hospitals
 - 58 NYS nursing homes
 - 1 LTACH
 - 1 hospice
- 86 facilities in NYC, 15 facilities in adjacent counties outside NYC, one in a Western NY county

Geographic Distribution

- All but 4 clinical cases were diagnosed in NYC facilities
 - Greatest numbers in Brooklyn, Queens
- One diagnosed in Monroe County
 - Patient had a recent admissions to involved NYC facilities
- One diagnosed in Westchester and two in Rockland County
 - No obvious link to NYC facilities
- In addition, 4 screening cases were identified in facilities in Westchester and Rockland Counties

The Future



What Is New York State Doing?

- Investigating reports of *C. auris*
- Testing samples from residents and their environmental surroundings (testing at Wadsworth Center Laboratory)
- Teaching healthcare staff how to prevent and control *C. auris* infection and spread
- Visiting all hospitals and nursing homes in Brooklyn and Queens; and where clinical cases have been identified, to help them prevent spread
- Summary letters to be distributed to nursing homes regarding site visit observations



Reporting –

- Mandated reporting under New York State Sanitary Code
- *Candida auris* not explicitly listed

However:

- “In addition to the diseases listed above, any unusual disease (defined as a newly apparent or emerging disease or syndrome that could possibly be caused by a transmissible infectious agent or microbial toxin) is reportable.”

Additionally:

- “...a cluster or outbreak of cases of any communicable disease is a reportable event.”
- Don’t assume someone else is reporting

NEW YORK STATE DEPARTMENT OF HEALTH
Communicable Disease Reporting Requirements

Reporting of suspected or confirmed communicable diseases is mandated under the New York State Sanitary Code (10NYCRR 2.10.2.14). The primary responsibility for reporting rests with the physician; moreover, laboratories (PHL 2002), school nurses (10NYCRR 2.12), day care center directors, nursing homes/hospitals (10NYCRR 405.3d) and state institutions (10NYCRR 2.10a) or other locations providing health services (10NYCRR 2.12) are also required to report the diseases listed below.

Anaplasmosis	• Foodborne illness	Influenza	Psittacosis	Streptococcal infection (invasive disease) ¹
Amebiasis	• Giardiasis	laboratory-confirmed	• C Fever ²	Group A beta-hemolytic strep
• Animal bites for which rabies prophylaxis is given ³	• Clostridium ⁴	Legionellosis	• Measles	Rocky Mountain spotted fever
• Arboviral infection ⁵	• Gonococcal infection	Listeriosis	• Mumps	Group B strep
• Botulism ⁶	• Haemophilus influenzae ⁷ (invasive disease)	Lyme disease	• Pertussis	Staphylococcus pneumoniae (including congenital rubella syndrome)
Babesiosis	• Human rabies disease	Malaria	• Rubella	Tetanus
• Brucellosis ⁸	Hemolytic uremic syndrome	• Measles	• Salmonellosis	Toxic shock syndrome
• Cryptosporidiosis	Hepatitis A	• Molluscum ⁹	• Severe Acute Respiratory Syndrome (SARS)	Transmissible spongiform encephalopathies ¹⁰ (TSE)
Chlamydia trachomatis	• Hepatitis A in a food handler	Meningitis	• Shiga toxin-producing E.coli ¹¹ (STEC)	Tuberculosis current disease (specific site)
Chancroid	Hepatitis B (specific acute or chronic)	• Aspecific or viral	• Shigellosis ¹²	Tularemia ¹³
• Chlamydia trachomatis infection	Hepatitis C (specific acute or chronic)	• Haemophilus	• Staphylococcus aureus ¹⁴ (due to strains showing reduced susceptibility or resistance)	• Typhoid
• Cholera	Pregnant hepatitis B carrier	• Meningococcal	• Streptococcus pneumoniae ¹⁵	• Vaccinia disease ¹⁶
Cryptosporidiosis	Herpes infection, infants aged 60 days or younger	• Meningococcal	• Staphylococcus aureus ¹⁴ (due to strains showing reduced susceptibility or resistance)	• Vibriosis
Cyclosporiasis	Hospital associated infections (as defined in section 2.2.10NYCRR)	• Mumps	• Streptococcus pneumoniae ¹⁵	• Viral hemorrhagic fever ¹⁷
• Diphtheria		Pertussis	• Staphylococcus aureus ¹⁴ (due to strains showing reduced susceptibility or resistance)	Yersiniosis
• E.coli O157:H7 infection ¹⁸		• Rabies ¹⁹	• Streptococcus pneumoniae ¹⁵	
Ehrlichiosis		• Pulmonary	• Streptococcus pneumoniae ¹⁵	
• Encephalitis		• Rabies ¹⁹	• Streptococcus pneumoniae ¹⁵	

WHO SHOULD REPORT?
Physicians, nurses, laboratory directors, infection control practitioners, health care facilities, state institutions, schools.

WHERE SHOULD REPORT BE MADE?
Report to local health department where patient resides.
Contact Person _____
Name _____
Address _____
Phone _____ Fax _____

WHEN SHOULD REPORT BE MADE?
Within 24 hours of diagnosis:
• Phone diseases in bold type.
• Mail case report, DOH-389 for all other diseases.
• In New York City use form PD-16.

SPECIAL NOTES

- Diseases in bold type require prompt action and should be reported immediately to local health departments by phone followed by submission of the confidential report form (DOH-389). In NYC, use case report form PD-16.
- In addition to the diseases listed above, any unusual disease (defined as a newly apparent or emerging disease or syndrome that could possibly be caused by a transmissible infectious agent or microbial toxin) is reportable.
- Outbreaks: while individual cases of some diseases (e.g., streptococcal sore throat, head lice, impetigo, scabies and pneumonia) are not reportable, a cluster or outbreak of cases of any communicable disease is a reportable event.
- Cases of HIV infection, HDV-related illness and AIDS are reportable on form DOH-4189 which may be obtained by contacting:
Division of Epidemiology, Prevention and Control
P.O. Box 2073, ESP Station
Albany, NY 12220-2073
(518) 474-4284
In NYC: New York City Department of Health and Mental Hygiene
For HIV/AIDS reporting, call:
(212) 142-3388

ADDITIONAL INFORMATION
For more information on disease reporting, call your local health department or the New York State Department of Health Bureau of Communicable Disease Control at (518) 474-4439 or (866) 881-2809 after hours. In New York City, (866) NYC-DOH. To obtain reporting forms (DOH-389), call (518) 474-9548.

PLEASE POST THIS CONSPICUOUSLY

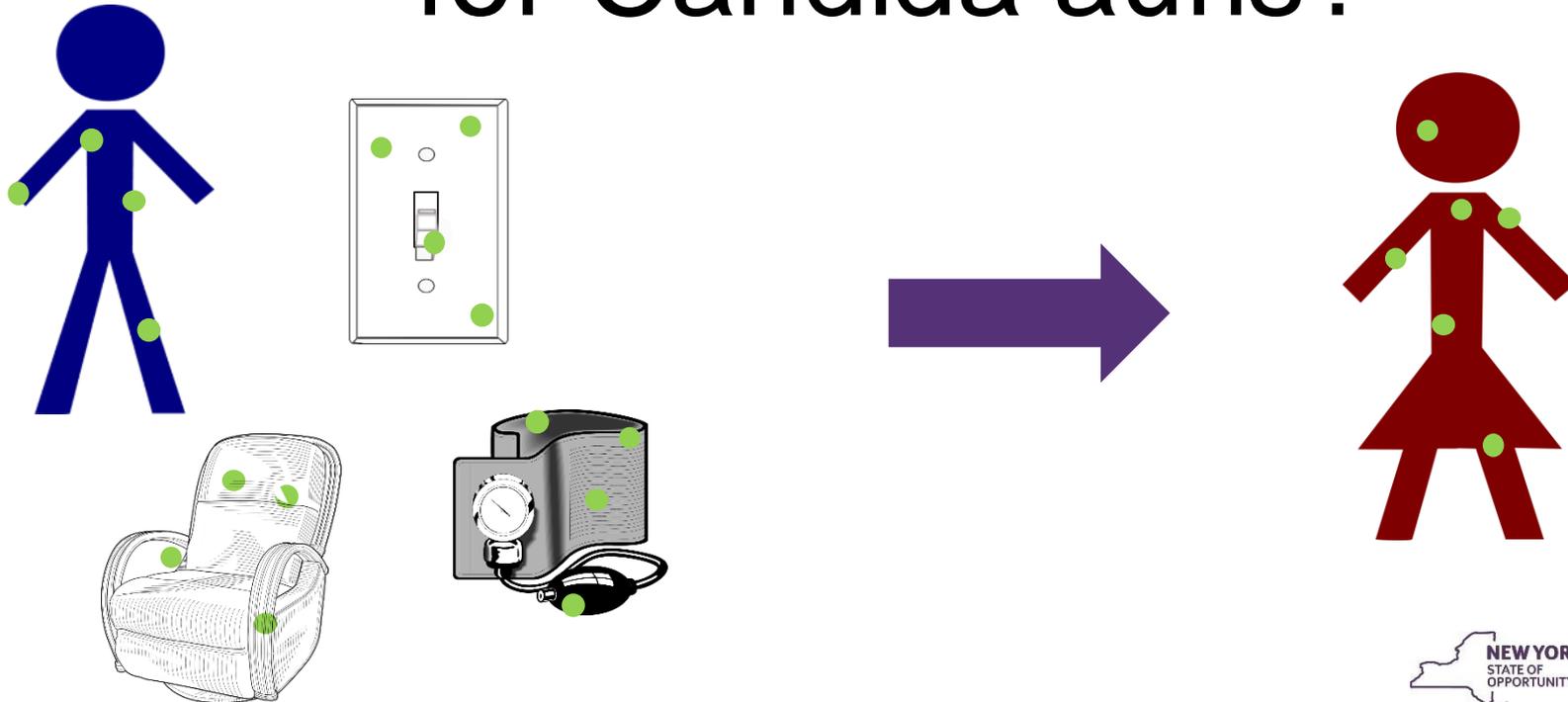
DOH-389 (2/11) p2 of 2

Reporting

- Facilities should contact their Regional Epidemiologist for suspected or confirmed cases of *C. auris*
- Clinical laboratories should forward isolates that are suspected to be *C. auris* to Wadsworth Center (see NYSDOH Health Advisories for information)
- Nursing homes should report *C. auris* to the Nosocomial Outbreak Reporting Application (NORA)
 - If first *C. auris* case and case likely acquired at your facility
 - Evidence of outbreak/increased incidence at your facility

Infection Prevention and Control in the Healthcare Environment

Why Is Infection Control Important for *Candida auris*?



Are Healthcare Workers At Risk?

- *C. auris* does not typically cause infections in healthy people
- Anyone can be colonized on the skin, but colonization doesn't happen very often for healthcare workers
- Be sure to perform hand hygiene the right way at the right times



C. auris IC Precautions in LTCFs

- Standard plus Contact Precautions
 - Use for both infected and colonized patients
 - Single room if possible, if not available, may cohort with other resident(s) colonized or infected with *C. auris*
 - Hand hygiene compliance must be excellent!
 - Personal protective equipment (PPE) - generally gown and gloves required
 - Effective environmental surface disinfection is critical for control

Standard Precautions

Every patient and resident, every day



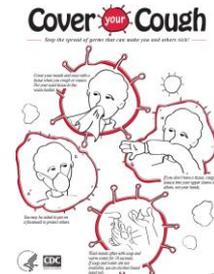
hand hygiene



personal protective equipment
based on your task



safe injection
practices



respiratory
hygiene/cough
etiquette

Always follow your facility-specific policy!

Hand Hygiene - Why?



- Hands are the most common way germs are spread in healthcare
- *C. auris* can live on surfaces and objects
 - Can be picked up on hands and shared
- Use of gloves including double/triple gloving is not a substitute for hand hygiene

Always follow your facility-specific policy!

Hand Hygiene - Wash or Sanitize?



OR



Always follow your facility-specific policy!

Hand Hygiene – Soap and Water

- Before entering/exiting isolation rooms
- Use when you can see your hands are dirty
- After using the restroom
- Before you eat
- Any other times your facility policy says to



Always follow your facility-specific policy!

Source: <https://www.cdc.gov/handhygiene/providers/guideline.html>

Hand Hygiene – Sanitize

- Use any time other than when you must wash with soap
- Cover your whole hand and nails with the sanitizer
- Rub hands until they dry

Always follow your facility-specific policy!

Source: <https://www.cdc.gov/handhygiene/providers/guideline.html>



Hand Hygiene – Fingernails, too

- Keep fingernails short and clean
- Best to avoid artificial nails
 - Includes gels, wraps, extensions, nail jewelry, etc.
 - Bacteria, viruses, and fungi can stick to material used to make artificial nails

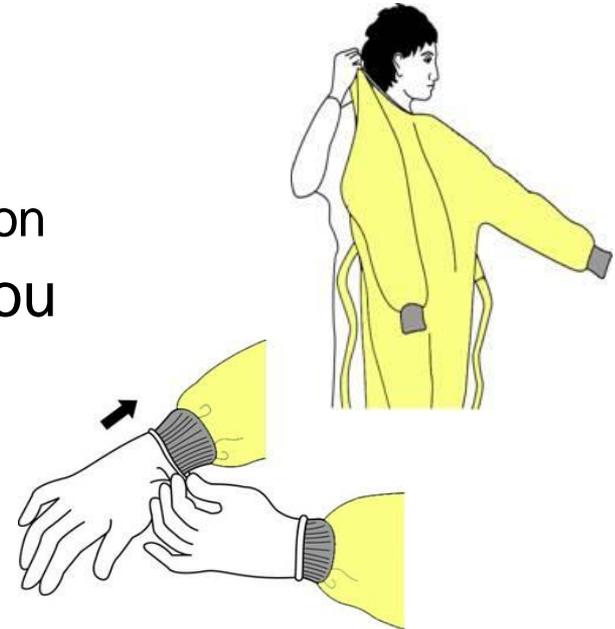


Always follow your facility-specific policy!

Source: <https://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf>

Contact Precautions

- Used to stop the spread of *C. auris*
 - direct person to person contact
 - indirect contact with intermediate object or person
- Gloves and gowns put a barrier between you and the patient and surfaces around the patient
- If you are unsure – ask before entering!



Always follow your facility-specific policy!

Internal Communication

Know your facility signs!

See Nurse
before entering



STOP CHECK WITH NURSE BEFORE ENTERING		CONTACT PRECAUTIONS (In addition to Standard Precautions)	
STAFF and PHYSICIANS		VISITORS, STAFF and PHYSICIANS	
	Gloves Always • Hand hygiene before donning		When you enter and each time you leave the room, either: Use waterless foam 1. Apply foam. Spread thoroughly over hands. 2. Rub until dry. OR Wash hands. 1. Apply soap to wet hands. Wash 15-20 seconds. Rinse completely. 2. Dry hands with paper towel. Use a towel to turn off water.
	Gown Always		
	Equipment Dedicate equipment Disinfect with disinfectant wipes between patients		
	Transport For essential purposes only Patient: • Clean gown • Hand hygiene Staff: Clean gloves only if patient transported in open bed or contact with blood or body fluids expected		

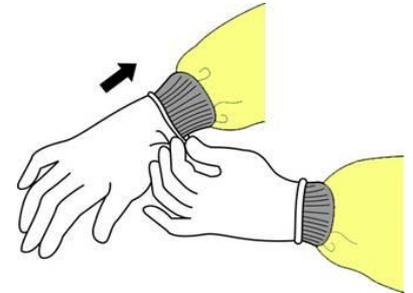
Contact Precautions
Gown and Gloves
needed to enter

Always follow your facility-specific policy!



Department
of Health

Personal Protective Equipment (PPE)



Always follow your facility-specific policy!

Transmission-Based Precautions in LTCFs

Transmission-Based Precautions in Long-Term Care Facilities

Because of the emergence of multi-drug resistant organisms (MDROs), long-term care facilities (LTCFs) increasingly need to care for residents with MDROs while preventing transmission and maintaining residents' privacy and dignity, ability to socialize, and home-like environment. This document provides guidance for LTCFs on the implementation of Transmission-Based Precautions, with specific emphasis on Contact Precautions for residents with MDROs and certain other infectious diseases.

For additional information about the care of residents with *Candida auris* infection or colonization, please see the advisories, guidance, and other materials issued by the New York State Department of Health (NYSDOH) at https://www.health.ny.gov/diseases/communicable/c_auris/providers/.

Signage

LTCFs are required to have “an effective infection prevention and control program . . . to control the spread of infections and/or outbreaks” (Centers for Medicare and Medicaid Services (CMS), State Operations Manual, Appendix PP).

Further, as stated in Appendix PP of CMS' State Operations Manual, “it is essential both to communicate transmission-based precautions to all health care personnel, and for personnel to comply with requirements. Pertinent signage (i.e., isolation precautions) and verbal reporting between staff can enhance compliance with transmission-based precautions to help minimize the transmission of infections within the facility” (CMS State Operations Manual, Appendix PP).

While a particular type or format of signage is not required, it is important to have a system in



Personal Protective Equipment (PPE) - Pop Quiz!

- Where do we store gloves, gowns and eye protection or face masks?
 - If it runs out, where do I find more?
- Where should I put PPE on?
- Is PPE allowed in the hallways?
 - For example: when getting a new cloth during cleaning?
- Where should I take PPE off?

Always follow your facility-specific policy!

C. auris Patient Transfer

- Ensure effective communication
 - Notify NYSDOH regional epidemiologist
 - Notify receiving facility by telephone
 - ✓ Infection or colonization with *C. auris*
 - ✓ Precautions required
 - If medical transport service is used, inform the EMS of precautions required
 - Include *C. auris* diagnosis prominently on discharge or transfer documentation

Consider use of a transfer form

INFECTION CONTROL TRANSFER FORM
(Discharging Facility to complete form and communicate information to Receiving Facility)

Demographics	Patient/Resident		Date of	Discharge
	Last Name			
	Sending Facility Name:		Contact Name:	Contact Phone:
	Receiving Facility Name:			

Precautions	Currently in Isolation Precautions? <input type="checkbox"/> Yes If Yes check: <input type="checkbox"/> Contact <input type="checkbox"/> Droplet <input type="checkbox"/> Airborne <input type="checkbox"/> Other: _____	<input type="checkbox"/> No Isolation Precautions
-------------	---	--

Organisms	Did or does have (send documentation):	Current Infection, History, or Ruling Out*	<input type="checkbox"/> No Known MDRO or Communicable Diseases
	Multiple Drug Resistant Organism (MDRO):	<input type="checkbox"/> Yes	
	MRSA	<input type="checkbox"/>	
	VRE	<input type="checkbox"/>	
	Acinetobacter not susceptible to carbapenems	<input type="checkbox"/>	
	E. coli or Klebsiella not susceptible to carbapenems	<input type="checkbox"/>	
	C. diff	<input type="checkbox"/>	
	Other*: _____ <small>(e.g., lice, scabies, disseminated shingles, norovirus, flu, TB, etc.)</small>	<input type="checkbox"/> <small>(current or ruling out)</small>	
	*Additional info if known: _____		

Symptoms	Check yes to any that currently apply*): <input type="checkbox"/> Cough/uncontrolled respiratory secretions <input type="checkbox"/> Incontinent of urine <input type="checkbox"/> Vomitin	<input type="checkbox"/> Acute diarrhea or incontinent of stool <input type="checkbox"/> Draining wounds <input type="checkbox"/> Other uncontained body fluid/drainage <input type="checkbox"/> Concerning rash (e.g., vesicular)	<input type="checkbox"/> No Symptoms or PPE not required as "contained"
----------	--	---	--

*NOTE: Appropriate PPE required ONLY if incontinent/drainage/rash NOT contained

ISOLATION PRECAUTIONS







CHECK IF INDICATED

Answers to sections above

ANY YES: Check Required PPE

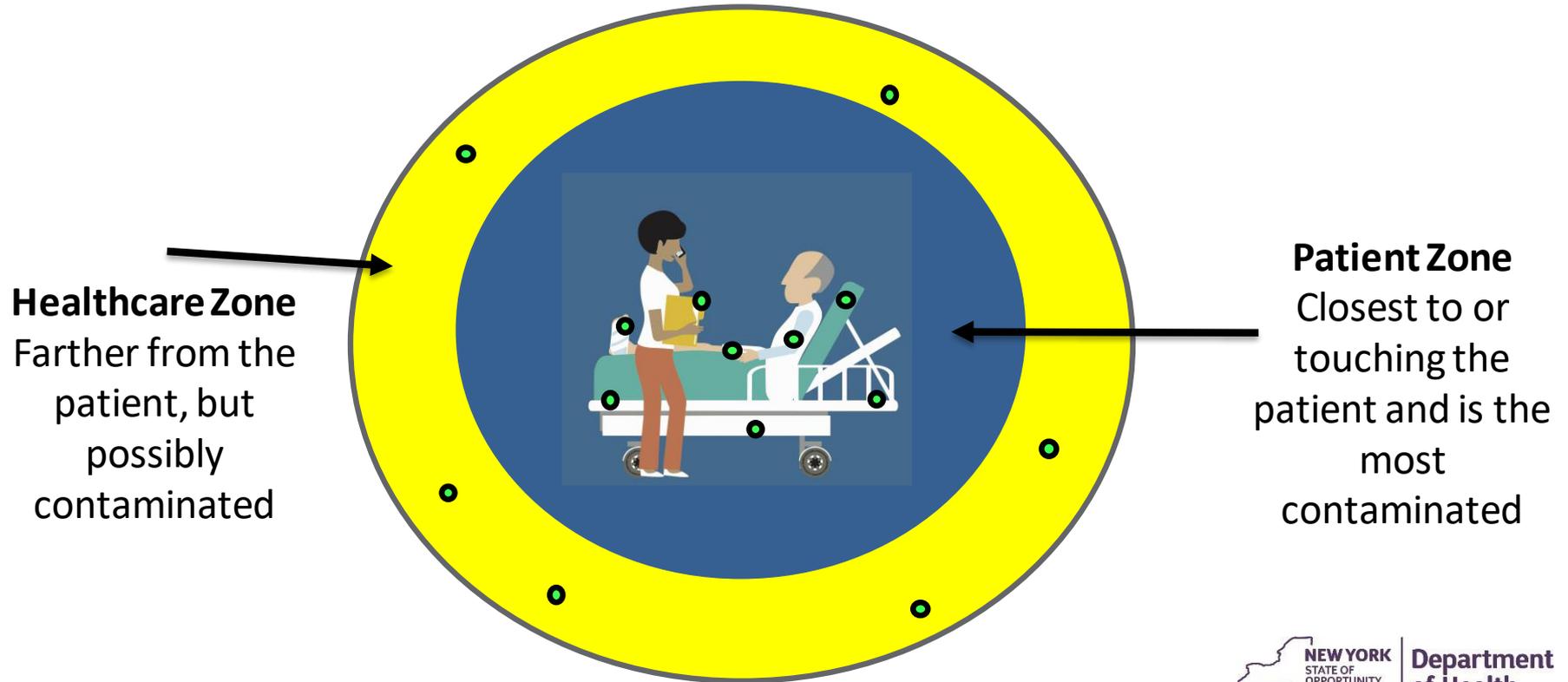
ALL NO: Just sign form

Person completing form: _____

Role: _____ Date: ____/____/____

Version 1.0 4/23/2014 - s.watson

Environmental Cleaning and Disinfection



Healthcare Zone
Farther from the patient, but possibly contaminated

Patient Zone
Closest to or touching the patient and is the most contaminated

Environmental Cleaning and Disinfection

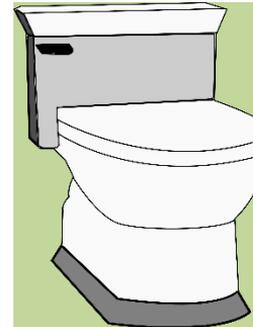
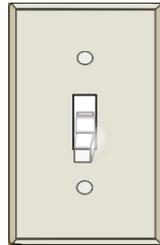
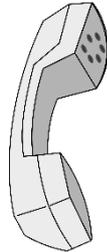
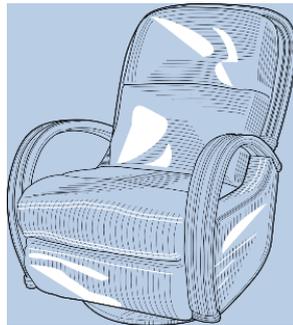
- Use the same EPA - registered product you use for *Clostridium difficile* spores:
<https://www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium>
- Be sure you know:
 - How long is the contact time?
 - Do I need to re-wet to get the correct contact time?
 - Does it need to dry or should I wipe it off?



Environmental Cleaning and Disinfection



High touch surfaces need more frequent cleaning



Always follow your facility-specific policy!

Environmental Cleaning and Disinfection

- Clean from least dirty to most dirty
 - High to low dusting
- Do not re-wet a dirty cloth
 - Keep dirty cloths separate from clean cloths
- Make sure to clean the cleaning cart and equipment, too
 - Example: mop handles and spray bottles



Always follow your facility-specific policy!

Monitoring of IC Practice

- Infection preventionists are strongly encouraged to monitor compliance with infection control practices
 - Environmental cleaning and disinfection
 - Procedures and competencies for implementing Standard and Contact Precautions
 - Hand hygiene observations
 - Personal protective equipment
 - ✓ Proper use
 - ✓ Availability

Education

- Education on prevention of MDRO transmission during orientation and updated periodically
- Education should be intensified and conducted more frequently in facilities that have a first case or have ongoing admission of cases or evidence of transmission
- Include frontline staff (environmental services, CNAs, etc.)

Duration of Contact Precautions

- Continue Contact Precautions for the duration of the clinical infection or for as long as the person is colonized
- Consult with NYSDOH Regional Epidemiologist to modify Contact Precautions for highly functional residents in LTCFs who can perform hand hygiene
- For patients cleared of clinical infection or those known to be colonized, conduct periodic reassessments (e.g., every 3 months)

Testing for ongoing colonization

- At least 2 sets of negative surveillance cultures from multiple sites collected at least one week apart are needed
 - Resident should not be on antifungals when tested for “clearance”
 - Wait at least 48 hours after use of topical antiseptics (e.g., CHG)
- Even if all sets and sites of cultures are negative for *C. auris*, periodic reassessment is recommended
- **Collaborate with your NYSDOH Regional Epidemiologist**

Resources for Monitoring IC Practice

- Options for Evaluating Environmental Cleaning
<https://www.cdc.gov/hai/pdfs/toolkits/environ-cleaning-eval-toolkit12-2-2010.pdf>
- Infection Prevention and Control Assessment Tool for Long-term Care Facilities
<https://www.cdc.gov/infectioncontrol/pdf/icar/lcfc.pdf>

Resource slide

NYSDOH: *Get the Facts about Candida auris*

https://www.health.ny.gov/diseases/communicable/c_auris/

CDC: *Candida auris*

<https://www.cdc.gov/fungal/diseases/candidiasis/candida-auris.html>

Summary

- Infection prevention and control activities are shared responsibilities in healthcare
- Help prevent *C. auris* spread in healthcare settings by:
 - Using Standard and Contact precautions
 - Performing hand hygiene
 - Using correct PPE, putting it on and taking it off correctly
 - Cleaning and disinfecting surfaces and equipment in healthcare settings thoroughly and correctly
 - Effectively communicating at time of patient transfer



Summary (cont'd)

- Healthcare facilities including nursing homes:
 - should recognize *C. auris* as an emerging MDRO
 - should be aware of the required infection control precautions for residents with *C. auris*
 - are expected to maintain capacity to manage infection control for patients or residents infected or colonized with *C. auris* or any MDRO

Important points to remember

- What is *Candida auris*?
- List two reasons why *Candida auris* is of concern
- What cleaning product should be used for *Candida auris*?
- How long is the contact time for that product?
- Identify the times when hand hygiene must be performed.
- Identify how your facility communicates when Contact or Droplet Precautions must be used.