



COVID-19 Chicago Long Term Care Roundtable

3-28-24



Agenda

- UIC VRD Project
- Updated Guidance Documents
- Preparing for Measles in LTCF
- Daily Outbreak Prevention in Long Term Care: *Moving Forward from COVID-19*
- Questions & Answers



The VRD Project: An Approach to Combating Viral Respiratory Diseases in Illinois Long Term Care Facilities

Ronald Hershov, MD

Director, Division of Epidemiology and Biostatistics

School of Public Health

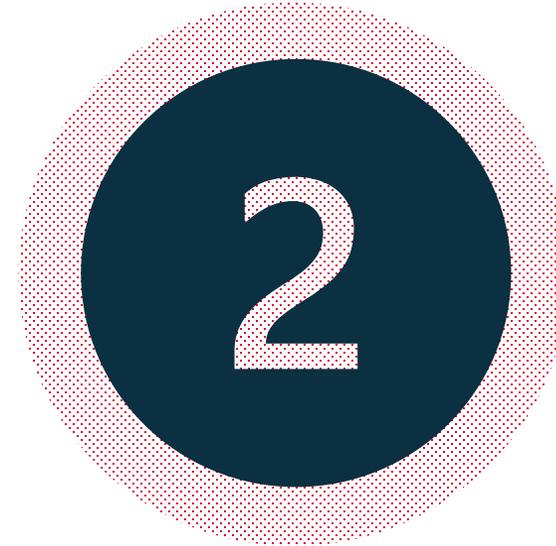


A Multifaceted Approach



Training

- School of Public Health Outbreak Investigation Training
- Viral Respiratory Disease Bootcamps
- Viral Respiratory Disease Toolkit



Consultation

- Ticketing system to link LTCF safety officers with public health experts during outbreaks



TRAINING

SPH
***Outbreak
Investigation
Training***

20 online modules presenting outbreaks in many settings **including long-term care facilities**, providing you with **interesting stories** of how they were dealt and what was learned.

Emphasis on **viral respiratory disease outbreaks**

Developed and taught by Dr. Mark Dworkin



TRAINING

SPH

***Outbreak
Investigation
Training***

MODULE 1: INTRODUCTION TO OUTBREAK INVESTIGATION

MODULE 2: LEGIONNAIRES DISEASE

MODULE 3: COVID-19 AND VACCINE EFFICACY

MODULE 4: PERTUSSIS

MODULE 5: RSV AND ADENOVIRUS

MODULE 6: HEPATITIS B

MODULE 7: MEASLES

MODULE 8: RHINOVIRUS

MODULE 9: INFLUENZA

MODULE 10: PNEUMONIA

MODULE 11: TUBERCULOSIS

MODULE 12: MULTIDRUG RESISTANT ORGANISMS AND CANDIDA AURIS

MODULE 13: COVID-19 AND AN ASSESSMENT TOOL

MODULE 14: MUMPS

MODULE 15: SHIGELLOSIS

MODULE 16: ENTERIC REVIEW ARTICLE

MODULE 17: CRYPTOSPORIDIUM

MODULE 18: A WEDDING TO REMEMBER

MODULE 19: NOROVIRUS

MODULE 20: MYSTERY ILLNESS IN PANAMA





TRAINING

Viral Respiratory Disease Bootcamp

8 online Bootcamp modules provide practical guidance on how to prevent, investigate, monitor, and respond to outbreaks

Detailed explanation of guidance rationale, content, and implementation

Coupled with access to the **outbreak investigation toolkit** – a compendium of IDPH and CDC Guidance on VRD Control in LTCFs

Participants introduced to a **novel Excel-based tracker tool** that facilitate outbreak monitoring and collects the collection of data that must be reported to the National Healthcare Safety Network



TRAINING

Viral Respiratory Disease Bootcamp

MODULE 1: PREPARING FOR AN OUTBREAK

MODULE 2: IDENTIFYING AN OUTBREAK

MODULE 3: MANAGING AN OUTBREAK

MODULE 4: STANDARD PRECAUTIONS P.1

MODULE 5: STANDARD PRECAUTIONS P.2

MODULE 6: ISOLATION, QUARANTINE, AND TBP

MODULE 7: ADDITIONAL MITIGATION STRATEGIES

MODULE 8: MANAGING STAFFING SHORTAGES



WEBSITE

VRD Website Overview

fightvrd.org

Combating Viral Respiratory Diseases in Illinois Long Term Care Facilities

Log In

or

Sign Up

Hello, and welcome, to the UIC-IDPH Viral Respiratory Disease Outbreak Project Website!

The project is a partnership between the Illinois Department of Health and Family Services (HFS), the Illinois Department of Public Health (IDPH), and the School of Public Health.

Registration for this program provides access to [two](#) online training programs and consultative services for facilities that need timely assistance with an active or recent VRD outbreak in their facility. Training materials (e.g., videos and quizzes) and the consultative service can be accessed within this website.

A brief description of our training programs can be found below. Full details are outlined in each training program's syllabus.

1. Outbreak Prevention and Control Training

- a. This training provides an introduction to the basic principles and steps involved in investigating and controlling infectious disease outbreaks in general, with special attention to LTCFs and respiratory outbreaks. Trainees will develop an understanding of many diseases (respiratory and non-respiratory) and methods of control and prevention. The course will increase trainees' familiarity with real outbreak investigations, the role that health department personnel play, the application of infection control practices to hasten the end of an outbreak, and emphasize the importance of motivating optimal prevention and control behavior.

2. Viral Respiratory Disease Bootcamp

- a. This training has been designed to increase familiarity, knowledge, and understanding of current policies, guidelines and resources for the prevention, mitigation, and control of viral respiratory pathogens in Illinois LTCFs. Special emphasis is provided for SARS-CoV-2, influenza, and respiratory syncytial (RSV) viruses given their prevalence and importance to long-term care populations. Participants will also have access to an accompanying toolkit which outlines state and federal guidelines and resources for preventing and responding to outbreaks of SARS-CoV-2, influenza, and RSV.

Please note, a monetary incentive will be provided to participants who complete a *minimum* of 15 Outbreak Prevention and Control Training modules and 6 Bootcamp modules, equivalent to approximately 75% of the offerings in each training program, and complete a brief survey about their experience with the trainings. Qualifying participants will receive a communication with instructions on how to obtain their honorarium. Please note, participants will be required to provide their SSN to UIC using a secure data transfer to receive payment.

For questions about this project or the training programs, please contact vrd_questions@uic.edu

Thank you for registering and we hope you enjoy our trainings!

- The UIC Team



WEBSITE

Registration

Combating Viral Respiratory Diseases in Illinois Long Term Care Facilities

Sign Up

All fields are required.

First Name

Last Name

Email Address

Password

Your password can't be too similar to your other personal information.

Your password must contain at least 8 characters.

Your password can't be a commonly used password.

Your password can't be entirely numeric.

Password confirmation

Enter the same password as before, for verification.

Credentials (e.g., MSN, CIC)

Job title

Organization type

- Long-Term Care Facility
- Health Department
- Other Employer

Institution name

Institution zip

Which of the following best describes your previous experience working on infectious disease outbreak investigations?

What motivated you to participate in this project? (select all that apply)

- I work in an organization that has been significantly or recently affected by a respiratory disease outbreak(s).
- I have a personal or professional interest in the topic and want to learn more.
- I want to earn the monetary incentive.
- I want to learn about state and federal guidelines related to infection disease prevention, control, and reporting.
- My employer offered me an incentive to participate (independent of the incentive offered by LIC/IDPH).
- I am required to participate as part of my employment.
- Convenience of participation (i.e., educational content can be accessed virtually and on-demand).
- The training is free.
- I want access to the consultative services being offered through this program.
- Other (specify in textbox).

Do you identify as Hispanic/Latinx?

- Yes
- No
- I don't know or prefer not to answer

What race(s) do you identify with? (select all that apply)

- American Indian/Alaska Native
- Asian
- Black/African American
- Native Hawaiian or Pacific Islander
- White/Caucasian
- Other
- Unknown
- Prefer not to identify

Do you currently identify as a woman, a man, or in some other way?

- Man
- Woman
- In some other way
- Prefer not to identify

Which age group do you belong to?

- <23
- 23-29
- 30-44
- 45-59
- 60-69
- 70+

Which of the following was the most recent COVID-19 immunization that you received?

- The new (bivalent) COVID-19 booster
- The first (monovalent) COVID-19 booster
- The COVID-19 primary series
- I did not complete the COVID-19 primary series

WEBSITE

Home Page

HOME

ABOUT

FAQS

TOOLKIT

HELP

ADMIN

Welcome

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Overall Progress



Registration



Bootcamp



Outbreaks



Survey



Honorary

Bootcamp

- Preparing for an Outbreak
- Identifying an Outbreak
- Managing an Outbreak
- Standard Precautions Part 1
- Standard Precautions Part 2
- Transmission-Based Precautions & Isolation and Quarantine Guidance
- Additional Mitigation Strategies
- Managing Staffing Shortages

Outbreaks

- | | |
|---|---|
| Introduction <input type="radio"/> | Tuberculosis <input type="radio"/> |
| Legionnaire's <input type="radio"/> | MDRO <input type="radio"/> |
| COVID-19 and Vaccine Efficacy <input type="radio"/> | COVID Assessment Tool <input type="radio"/> |
| Pertussis <input type="radio"/> | Mumps <input type="radio"/> |
| RSV & Adenovirus <input type="radio"/> | Shigellosis <input type="radio"/> |
| Hepatitis B <input type="radio"/> | Enteric Outbreaks <input type="radio"/> |
| Measles <input type="radio"/> | Cryptosporidium <input type="radio"/> |
| Rhinovirus <input type="radio"/> | A Wedding to Remember <input type="radio"/> |
| Influenza <input type="radio"/> | Norovirus <input type="radio"/> |
| Pneumonia <input type="radio"/> | Panama <input type="radio"/> |

Toolkit

Disclaimer Regarding COVID-19 Guidance:

The COVID-19 guidance below is specifically intended for facilities as defined in the Nursing Home Care Act (210 ILCS 45), Intermediate Care Facilities for the Developmentally Disabled (ICF/DD), State-Operated Developmental Centers (SODC), Medically Complex/Developmentally Disabled Facilities (MC/DD), and Illinois Department of Veterans Affairs Facilities

Supported Living Facilities, Assisted Living Facilities, Shared Housing Establishments, Sheltered Care Facilities, and Specialized Mental Health Rehabilitation Facilities, whose staff provide non-skilled personal care, should follow state guidelines for [Assisted Living and Other Higher Risk Community Congregate Living Settings](#). Community Integrated Living Arrangements (CILAs), of eight or less, unrelated individuals and other small congregate settings should also review [Suggested COVID-19 Guidance for Small Congregate Settings](#) provided by the Illinois Department of Human Services.

- Surveillance
- Preparing for Outbreaks
- Reporting
- Monitoring an Evolving Outbreak (Line Lists)

- Respiratory Syncytial Virus (RSV)
- Vaccination
- Screening and Admissions
- Staffing Shortages
 - "IDPH generally does not support HCP working while ill, as sickness presenteeism, or working while ill increases risk of errors and COVID-19 transmission. If a facility is allowing HCP who are positive to work, they must be willing and well enough to work." - [Illinois Department of Public Health](#)
 - For guidance on managing staffing shortages, refer to this IDPH [document](#).
 - Further guidance can be found on this CDC [web page](#).
 - The below strategies are designed to be implemented sequentially.
 - Each strategy is designed to ensure there adequate staffing at all times for a) the safety and care of residents and b) to maintain a safe working environment.
- 1. Conventional Strategies
- 2. Contingency Capacity Strategies
- 3. Crisis Capacity Strategies
- Visitors and Essential Caregivers
- Additional Guidance and Resources
- State and Federal Policy Documents (Sources)

WEBSITE

Training and Bootcamp View



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Module 3 - COVID-19 and Vaccine Efficacy

Bookmark this page

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Video

A Tale of Two Outbreaks

1. A Large Outbreak in a Nursing Home
2. An Outbreak in a Skilled Nursing Facility in Which the Vaccine Helps to Control Spread

Hurraß et al., 2022 & Morris et al., 2020

0:00 / 30:39

Additional Materials

- Explosive COVID-19 outbreak in a German nursing home and the possible role of the air ventilation system
- Investigation of A SARS-CoV-2 Delta (B.1.617.2) Variant Outbreak Among Residents of a Skilled Nursing Facility and Vaccine Effectiveness Analysis — Maricopa County, Arizona, June–July 2021

[Return to Dashboard](#)

WEBSITE

Consultative and Help Request Form

**UNIVERSITY OF
ILLINOIS CHICAGO**

[Returning?](#)
AAA
🔊 🗖 🗑

School of Public Health

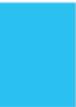
VRD Helpdesk

Please complete the survey below to request a consultation from the UIC-IDPH-HFS Viral Respiratory Disease Outbreak Prevention Program team or to request help with an IT/website related matter.

For any questions related to the course materials or toolkit, please email vrd_questions@uic.edu.

First Name <small>* must provide value</small>	<input type="text"/>
Last Name <small>* must provide value</small>	<input type="text"/>
Please enter an email address where you can be reached. <small>* must provide value</small>	<input type="text"/>
Please provide a phone number where you can be reached.	<input type="text"/>
What type of request are you submitting? <small>* must provide value</small>	Consultative Request ▾
Organization Name <small>* must provide value</small>	<input type="text"/>
Organization Zipcode <small>* must provide value</small>	<input type="text"/>

What is the subject of the issue/request? <small>* must provide value</small>	<input type="text"/>
Please describe the issue/request. <small>Please provide as much detail as possible. If this pertains to an outbreak, indicate:</small> <ul style="list-style-type: none">• which virus(es) is causing the outbreak.• confirmed and suspected case numbers.• number of hospitalizations or deaths.	<div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div> Expand



FAQ: Does the new CDC Respiratory Virus Guidance Apply to Skilled Nursing Facilities?

- No. SNFs should continue to follow the healthcare guidance for COVID-19 (e.g., 10 days of isolation for COVID+ residents), which has not changed.
- For CCRCs, feel free to reach out to us so we can walk through how to handle the AL/IL sections.



New CMS QSO on Enhanced Barrier Precautions (EBP)

- QSO related to implementation of EBP, which is now required for:
 - Indwelling devices
 - Wounds
 - Colonization or infection with “CDC targeted MDROs” (aka XDROs)
 - C. auris
 - Carbapenem-resistant Enterobacterales (CRE)
 - Carbapenem-resistant Acinetobacter baumannii (CRAB)
 - Carbapenem-producing Pseudomonas aeruginosa
- Effective April 1, 2024

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850



Center for Clinical Standards and Quality/Quality, Safety & Oversight Group

Ref: QSO-24-08-NH

DATE: March 20, 2024

TO: State Survey Agency Directors

FROM: Director, Quality, Safety & Oversight Group (QSOG)

SUBJECT: Enhanced Barrier Precautions in Nursing Homes

Memorandum Summary

- CMS is issuing new guidance for State Survey Agencies and long term care (LTC) facilities on the use of enhanced barrier precautions (EBP) to align with nationally accepted standards.
- EBP recommendations now include use of EBP for residents with chronic wounds or indwelling medical devices during high-contact resident care activities regardless of their multidrug-resistant organism status.
- The new guidance related to EBP is being incorporated into F880 Infection Prevention and Control.

Background:

Multidrug-resistant organism (MDRO) transmission is common in long term care (LTC) facilities (i.e., nursing homes), contributing to substantial resident morbidity and mortality and increased healthcare costs. Many residents in nursing homes are at increased risk of becoming colonized and developing infections with MDROs.

In 2019, CDC introduced a new approach to the use of personal protective equipment (PPE) called Enhanced Barrier Precautions (EBP) as a strategy in nursing homes to decrease transmission of CDC-targeted and epidemiologically important MDROs when contact precautions do not apply. The approach recommended gown and glove use for certain residents during specific high-contact resident care activities associated with MDRO transmission and did not involve resident room restriction.

As described in the Healthcare Infection Control Practices Advisory Committee (HICPAC) white paper, “[Consideration for the Use of Enhanced Barrier Precautions in Skilled Nursing Facilities](#)” dated June 2021, more than 50% of nursing home residents may be colonized with an MDRO. This report noted that the use of contact precautions to prevent MDRO transmission involves restricting residents to their rooms, which may negatively impact a resident’s quality of life and psychosocial well-being. As a result, many nursing homes only implemented contact precautions when residents are infected with an MDRO.



New CMS QSO on Enhanced Barrier Precautions

- Incorporated into F880 Infection Prevention and Control
- Facilities can decide whether to use EBP for residents who have a MDRO that is not currently targeted by CDC as long as the resident does not have an indwelling device or wound.
 - Examples: Facility discretion whether to use EBP for MRSA, VRE, or ESBL
- Gowns and gloves do not need to be used when performing transfers in common areas like dining/activity rooms but should be used when performing transfers or assisting during bathing in shared/common shower rooms and when working in the therapy gym, “specifically when anticipating close physical contact while assisting with transfers and mobility”



Reminder: IDPH Toolkit for Implementing PPE in Nursing Homes to Prevent the Spread of MDROs/XDROs

Page | 1

- Comprehensive toolkit which goes through the ins and outs of Enhanced Barrier Precautions (EBP)
- Includes link to a slide deck, pre/post tests, and competency validation that you can use to train and assess your staff
- Link for the toolkit is included in our follow-up emails and posted on our LTCF HAN page



A Toolkit for Implementing Personal Protective Equipment in Nursing Homes to Prevent the Spread of Multidrug- and Extensively Drug-Resistant Organisms

January 17, 2024

Created by the Illinois Department of Public Health and Karen Trimberger RN, MPH, CIC, Infection Prevention Consultant for the Hektoen Institute of Medicine/IDPH grantee, in collaboration with the Chicago Department of Public Health, DuPage County Health Department, Lake County Health Department, Will County Health Department, and Infection Prevention Consultants for the Hektoen Institute of Medicine.

Chicago Measles Dashboard

Measles Dashboard

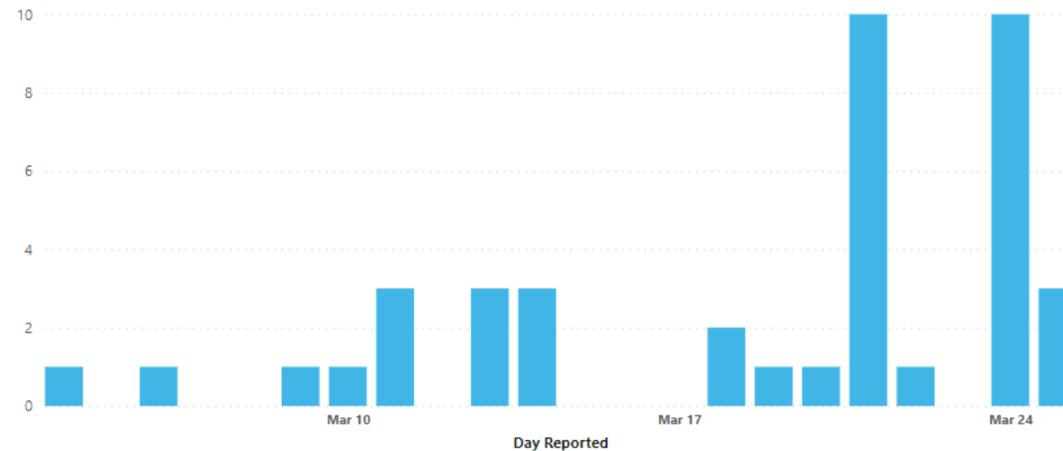
Data last updated 3/28/2024

Data are updated daily at 8 a.m. All data are provisional and subject to change.

Cases of Measles in 2024 Among Chicagoans



Cases by Date Reported



Cases by Age Group

Age Group	Count	%
0 - 4 years	28	68%
5 - 17 years	3	7%
18 - 49 years	9	22%
50+ years	1	2%



Health Advisory for Long Term Care Facilities Regarding Measles

- IDPH released a SIREN alert which provides information on guidance related to measles in long-term care facilities, including:
 - Prevention
 - Diagnosis and Treatment
 - Reporting
 - Transmission
 - Infection Prevention Precautions
 - Additional Resources



HEALTH ADVISORY

JB Pritzker, Governor

Sameer Vohra, MD, JD, MA, Director

Health Advisory to Long Term Care Facilities Regarding Measles in Illinois, 2024

Summary and Action Items

- 1) Provide awareness about confirmed [measles](#) cases in Illinois.
- 2) Remind long term care facilities that all persons who work in their facilities should have [presumptive evidence of immunity to measles](#). The facility should know the immune status of their residents and offer vaccination if their residents do not have presumptive evidence of immunity.
- 3) Suspect cases (individuals with compatible symptoms) should be immediately masked and isolated, preferably in a negative pressure room, and airborne isolation precautions should be initiated.
- 4) Remind facilities to **immediately report to their [local health departments](#)** any suspect measles cases at the time it is first suspected and prior to clinical testing, and to take appropriate steps for diagnosis and infection control and isolation.
- 5) Review current vaccine and isolation/quarantine guidance. Recommend facilities take steps to ensure that they have policies and procedures in place should a resident or HCW present with signs and symptoms of measles.
- 6) Facilities should **exclude sick visitors and HCWs**



Presumptive Evidence of Measles Immunity

- At least one of the following must be true:
 - Written documentation of 2 doses of live measles or MMR vaccine administered at least 28 days apart
 - Laboratory evidence of immunity (positive serum IgG)
 - Laboratory confirmation of previous measles disease
 - Birth before 1957

Resident Vaccination Records

- For residents born after 1957 without written documentation of receipt of two measles or MMR vaccines, facilities with access to ICARE can search the registry to see if the resident has documented shots.
- Under Section [300.650](#) of the IL Administrative Code, “facilities shall maintain a confidential medical file for each employee that shall contain health records, including the employee's vaccination and testing records...”
 - Staff can request their own vaccination records using [VaxVerify](#).
 - Facilities are **NOT** permitted to use ICARE to look up staff vaccination records.



Recommendations

- Assess immunization records for all staff and residents (unless residents were born pre-1957)
- Offer vaccinations if possible
- Make a plan for what you will do if:
 - a staff member cannot find their vaccination records?
 - a staff member tests positive?
 - a resident tests positive?
 - a staff member without documented immunity is exposed to a case (e.g., a household member who has measles)?



Questions & Answers

For additional resources and upcoming events,
please visit the CDPH LTCF HAN page at:
<https://www.chicagohan.org/covid-19/LTCF>

Daily Outbreak Prevention in Long-term Care: Moving Forward from COVID-19

Rebecca Battjes, MPH, CIC, FAPIC
Infection Prevention Senior Clinical Advisor
Diversey – A Solenis Company

Disclosure

Rebecca is employed by Diversey—A Solenis Company. The company pays her expenses to attend this meeting & create educational content (salary). The company has had no input into this presentation from a commercial interest.

Acknowledgements

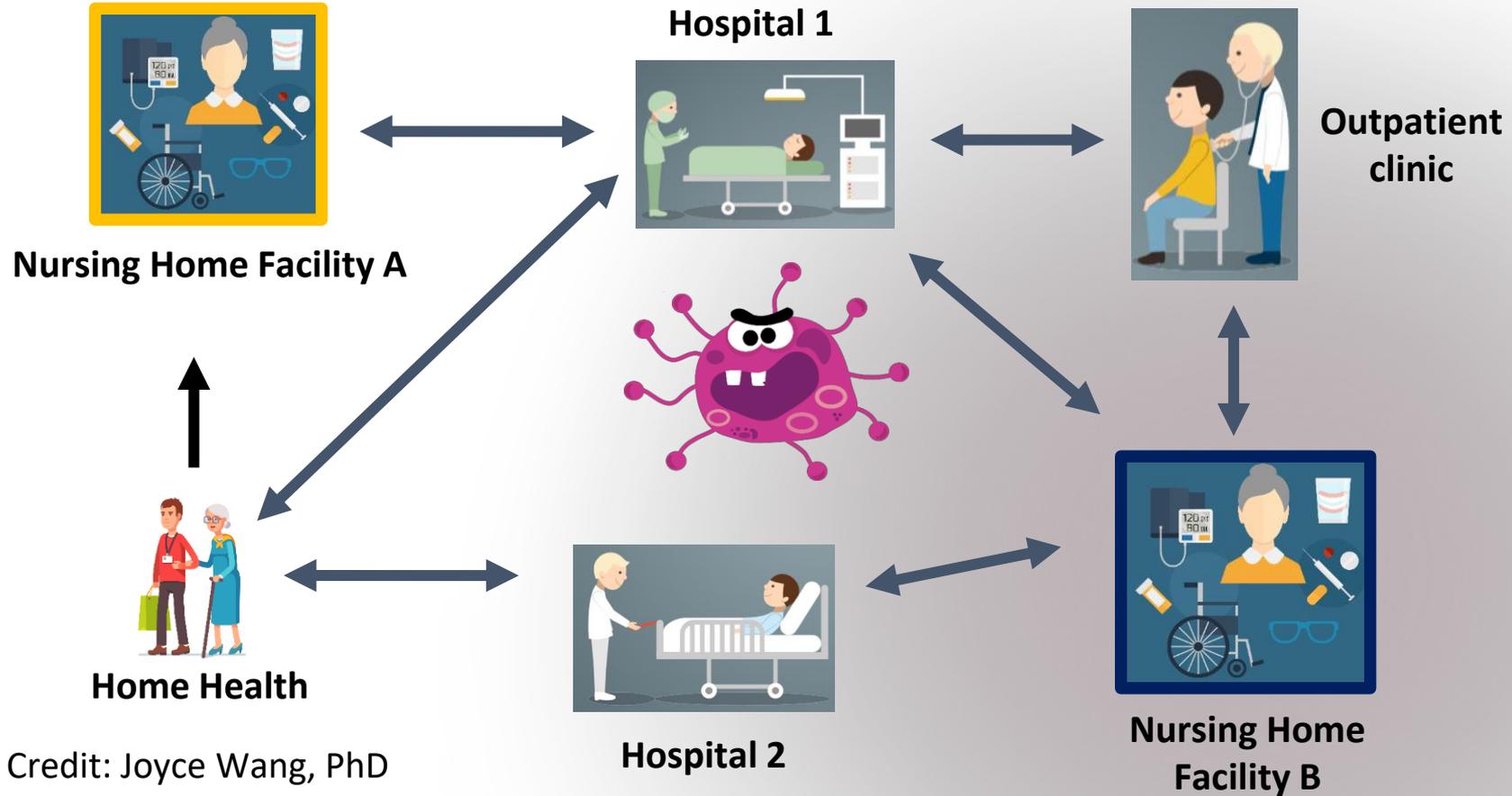
Special thanks to my dear friend & fellow Infection Preventionist Karen Jones, MPH, RN, CIC, FAPIC for sharing her long-term care research & several slides in this presentation.



Objectives

- Describe the potential risks of transmission for long term care residents
- Outline best practices for hand hygiene and cleaning & disinfection
- Identify the high-touch surfaces in the facility
- Discuss tools and resources to help prevent outbreaks in long term care

Why Acute Care IPs Need to Partner with LTC IPs



Infection Risk Factors in LTC



Resident Level

- Effects of older age (immune system, mucous membrane & skin changes)
- Atypical symptoms of infection
- Residents may not verbalize s/s changes (APIC 2019)



Environmental Level

- Many **shared spaces**
- **Highly interactive**, high-touch surfaces (e.g., PT/OT)



Therapy Related

Antimicrobial overuse & rise in MDROs

Potential Outbreak Risks in LTC



Multidrug-resistant organisms (MDROs) & other environmentally significant pathogens (e.g., *Candida auris*)



Gastrointestinal Illnesses (norovirus, *C.difficile*, HAV, etc).



Bloodborne Pathogens (HBV, HCV, HIV)



Respiratory Illnesses (COVID-19, influenza, RSV, pneumococcus, etc.)



Waterborne-associated (*Legionella*, *Pseudomonas*, etc.)

https://www.cdc.gov/longtermcare/staff/report-publications.html#anchor_1591648451025

APIC's 2019 *Infection Prevention Guide to Long-Term Care*, 2nd Edition

What Is an Outbreak?

- The definition of a LTC outbreak may depend on the **disease** (e.g., COVID-19 vs norovirus) and/or federal/local/state definitions
 - CMS QSO-20-39-NH instructs LTC to initiated outbreak investigation when a single new case of C19 occurs among residents or staff
- Per CDC, an outbreak is “an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area.” (APIC 2019)
- Always consult your local/state health department if an outbreak is suspected!
 - Public health epidemiology & ICAR representatives should be seen as consultative partners, not as outsiders who will “get you in trouble”

Find your state IP resources!
HAI/AR Programs: Recipient
Health Departments & Funding



https://www.cdc.gov/hai/HAI-AR-Programs/recipients-funding.html#anchor_1677593691295

Hand Hygiene & LTC



Traditional Hand Hygiene: Healthcare Providers

- HCP to comply with WHO 5 moments
 - Typically, via covert/“secret” shoppers (btw, the IP is *not* a secret!), automated monitoring systems
- Education & direct feedback to staff
- Success requires all-hands-on-deck approach (from the frontline to the admin office)

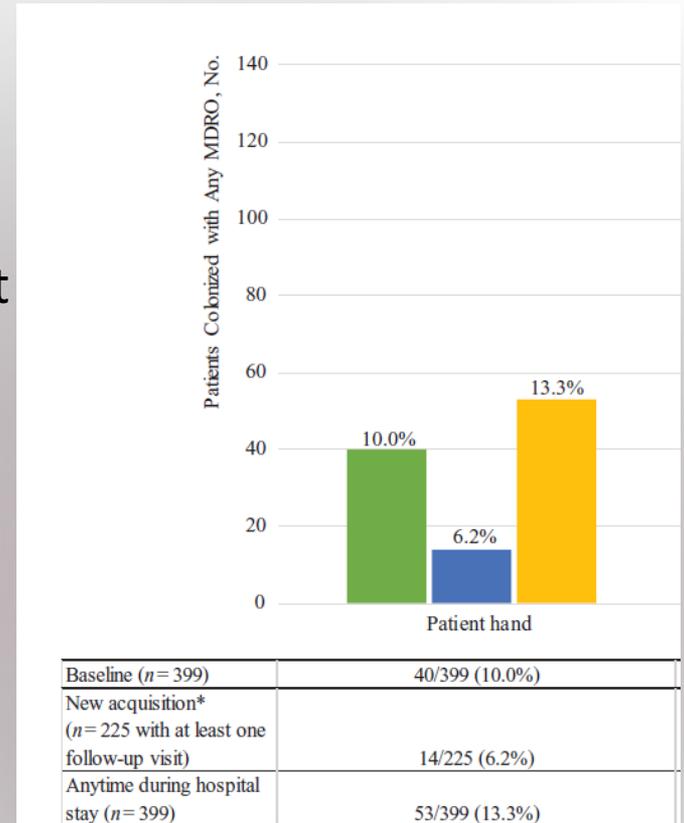
What's on residents' hands?

- Cao et al (2016) swabbed palms, fingers & around nails at admission, then monthly up to 180 days or until discharged
- Isolated MRSA, VRE & resistant gram negs
- **24.1% had at least one MDRO on hands admission; 34.2% during follow up visit.**



MDRO Contamination of Hospitalized Patients

- MDRO contamination of hands occurring if acute care hospitals, too.
- Same researchers swabbed 399 hospital patients at admission, and at follow up intervals, looking for MRSA, VRE or resistant gram-negative bacilli (RGNB) (Mody et al 2019)
- 10% positive at admission, 6.2% acquired a new MDRO at follow up
- Focusing *only* on HCP hand hygiene ignores significant risk factors



Resident Hand Hygiene

- Often missed in traditional compliance measures
- Not (yet) required by regulatory/accreditation agencies

Key Questions!

- Does the resident **know** that the product is there and what it is and when to use it?
- Can the resident **perform** their own hand hygiene?
- Do existing shift assessments **identify** those requiring assistance?
- Are products **available** when needed most (before eating, after self care, etc)?



<https://apic.org/patient-hand-hygiene-toolkit/>

The LTC Environment

MDRO Colonization in NHs: An “Iceberg Effect”

- McKinnell et al (2020) performed point prevalence sampling of residents & the environment in 28 NHs in Southern California.
- In >50% of NHs, **>50% of residents were colonized with MDROs** (MRSA, VRE, ESBL and/or CRE)
- 74% of resident rooms w/ MDRO contamination!
- 93% of common areas contaminated!
- One of several key studies leading to recommendations for Enhanced Barrier Precautions in LTC



**Known to be
colonized w/ an
MDRO**

**Unidentified
MDRO carriers
&
environmental
contamination!**

Enhanced Barrier Precautions (EBP)

- EBP may be confusing to acute care-based IPs who are accustomed to limited patient movement, adherence to standard precautions & shorter lengths of stay
- Targeted to prevent MDRO transmission
- Gowns & gloves for high-contact resident care activities
- Resident inclusion:
 - Has an indwelling medical device
 - Has a wound
 - Infection or colonization of MDRO (not otherwise covered by Contact Precautions)
- **Now required by CMS as of March 20, 2024**
 - <https://www.cms.gov/files/document/qso-24-08-nh.pdf>

The infographic is set against an orange background. At the top, two red octagonal 'STOP' signs flank the title 'ENHANCED BARRIER PRECAUTIONS' in large, bold, white letters. Below the title, the text 'EVERYONE MUST:' is written in white. To the left of the text is an icon of a hand being washed with blue liquid from a bottle labeled 'ABH'. To the right, the text reads 'Clean their hands, including before entering and when leaving the room.' Below this, the text 'PROVIDERS AND STAFF MUST ALSO:' is written in white. To the left are two icons: a pair of blue gloves and a blue gown. To the right, the text reads 'Wear gloves and a gown for the following High-Contact Resident Care Activities.' followed by a list: 'Dressing', 'Bathing/Showering', 'Transferring', 'Changing Linens', 'Providing Hygiene', 'Changing briefs or assisting with toileting'. Below this list, it says 'Device care or use:' followed by 'central line, urinary catheter, feeding tube, tracheostomy' and 'Wound Care: any skin opening requiring a dressing'. At the bottom left, the text 'Do not wear the same gown and gloves for the care of more than one person.' is written in white. At the bottom right is the CDC logo and the text 'U.S. Department of Health and Human Services, Centers for Disease Control and Prevention'. On the far left edge, there is a vertical text 'CDC 5088-104-9'.

STOP **ENHANCED BARRIER PRECAUTIONS** **STOP**

EVERYONE MUST:

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

PROVIDERS AND STAFF MUST ALSO:

  Wear gloves and a gown for the following High-Contact Resident Care Activities.

Dressing
Bathing/Showering
Transferring
Changing Linens
Providing Hygiene
Changing briefs or assisting with toileting

Device care or use:
central line, urinary catheter, feeding tube,
tracheostomy

Wound Care: any skin opening requiring a dressing

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

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

CDC 5088-104-9

LTC presents unique challenges to environmental hygiene

- Less turnover of resident population
- Leveraging “home-like” with increasing concerns of pathogen transmission
- What in this resident room photo **cannot** be effectively disinfected?



Are nursing home common areas reservoirs for MDROs?

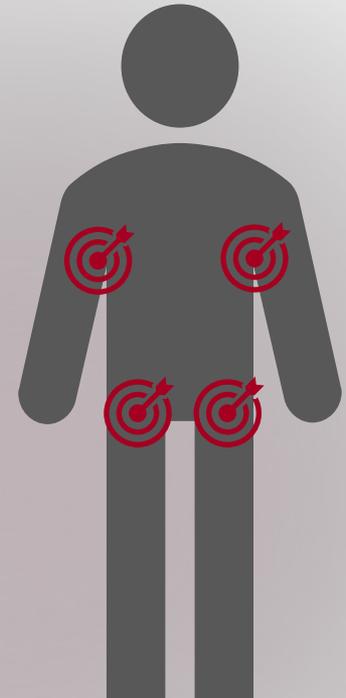
Study: Prevalence & transmission in shared spaces

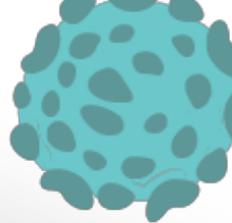
	MRSA+ (%)	VRE+ (%)	RGNB+ (%)	Any MDRO+ (%)
ALL Patient-Used Common Area Specimens (N=796)	43 (5.4%)	61 (7.7%)	52 (6.5%)	143 (18.0%)
Shower Room (n=156)	7 (4.5%)	20 (12.8%)	19 (12.2%)	40 (25.6%)
Rehabilitation Gym (n=178)	14 (7.9%)	20 (11.2%)	10 (5.6%)	38 (21.4%)
Hallway Handrails (n=179)	14 (7.8%)	10 (5.6%)	13 (7.3%)	37 (20.7%)
Living Room (n=117)	2 (1.7%)	5 (4.3%)	6 (5.1%)	13 (11.1%)
Dining Room (n=166)	6 (3.6%)	6 (3.6%)	4 (2.4%)	15 (9.0%)

Positive Correlation between *Candida auris* Skin Colonization Burden and Environmental Contamination in Ventilator-Capable Skilled Nursing Facility (vSNF) in Chicago, Illinois

(Sexton et al 2021)

- 70-bed facility in Chicago Illinois
 - First CA case was identified by point prevalence in March 2017
 - **In 18 months (Sept 2018), CA colonization climbed to 71%!**
- Study sampled bilateral axillary/inguinal swabs on all residents



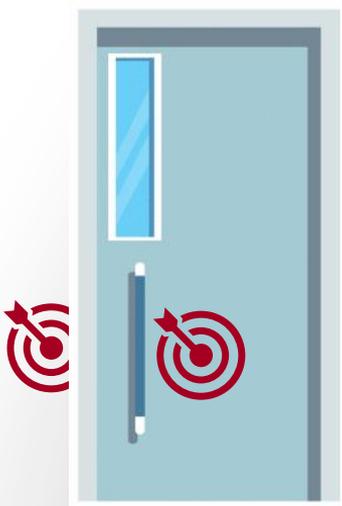


Study Findings vSNF Chicago: *Candida auris* Positive Environmental Cultures



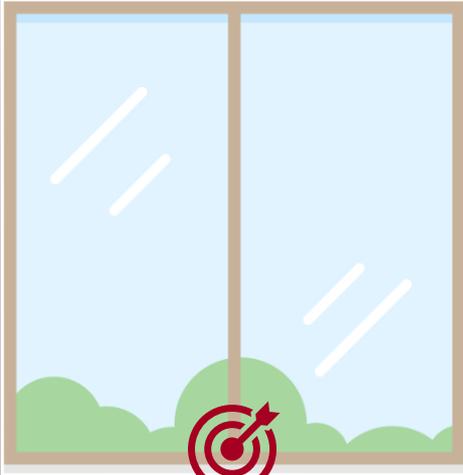
Bedrails

Left	Right
81%	78%



Door handles

Inner	Outer
58%	25%



Windowsills

75%

Resident & Environmental Culture Heatmap!

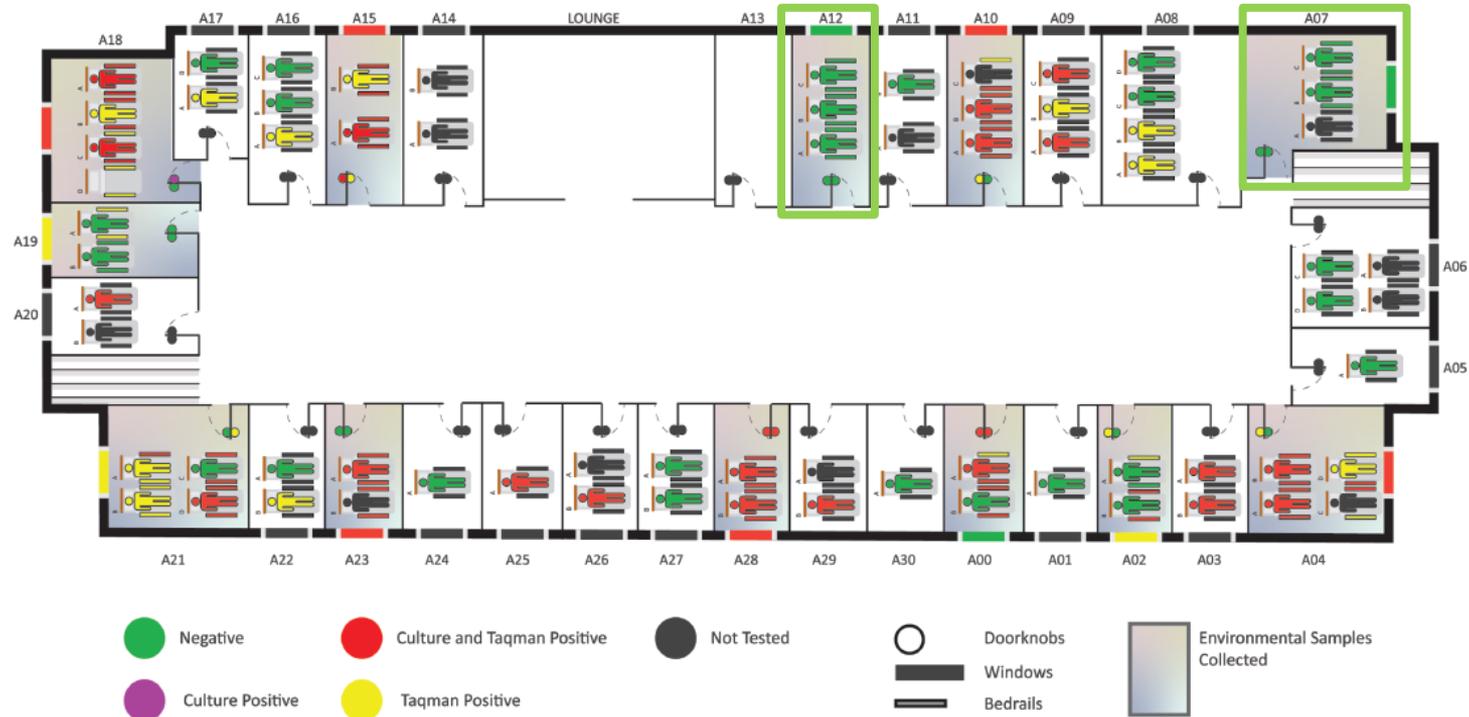


Figure 1. Facility map with culture-based and qPCR results for residents and associated environmental surfaces. The specific organization of beds within a room may differ from the image.

Study Findings vSNF Chicago



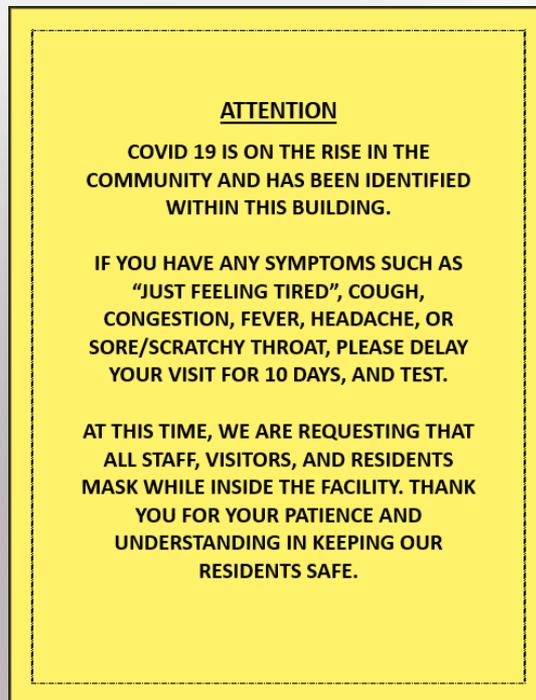
- Colonized residents can have **high CA burden on their skin**, which was positively related with **contamination** of their surrounding healthcare **environment**.
- **3 negative patients had positive bedrails!**
- These findings underscore the importance of:
 - Hand hygiene
 - Transmission-based precautions
 - **Environmental disinfection with EPA List P disinfectants, *not* QACs (ineffective against *C. auris*)**

Strategies to Mitigate Outbreak Risks

Passive Health Screening – Visitors & Family

Per CMS [Nursing Homes Visitation – COVID-19 \(REVISED\) QSO-20-39-NH](#):

- Facilities should provide guidance (e.g., posted signs at entrances) about recommended actions for visitors with positive C19 test, symptoms of C19, or recent exposure
- Defer visitation non-urgent visits if symptomatic or after exposure
- **Tailor signage to facility-specific needs**



As shared on [AHCH/NCAL Community](#) by Anna Curcio, Carmel Hills Care Center



Know the **INFECTIOUS SYMPTOMS**

Please delay your visit if you are experiencing any of the following symptoms:

- Fever
- Cough
- Sore throat
- Shortness of breath
- Chills
- Body aches
- Headache
- Vomiting
- Diarrhea
- Congestion
- Runny Nose
- Loss of Taste/Smell

Also, please reschedule if you:

- Have been in close contact with someone who has tested positive for a respiratory illness like COVID-19 in the past 10 days
- Have tested positive for COVID-19, RSV or Flu in the past 10 days.

MASKS ARE NOT REQUIRED AT THIS FACILITY,
BUT FOR YOUR PROTECTION AND THE
PROTECTION OF THOSE AROUND YOU, YOU ARE
WELCOME TO WEAR A MASK. THESE ARE
PROVIDED AT THE FRONT DESK.



Need sign templates?

- Go to www.canva.com to customize your own signage based for free!
- Search the [AHCA/NCAL Online Member Community Library!](#)
- [APIC IP Talk](#) community is also helpful for signs, forms & templates.

<https://www.canva.com/templates/EAD3hYSSNsM-blue-and-green-symptoms-coronavirus-poster/>

Passive Health Screening – Visitors & Family

Infection Control for Respiratory Viruses

Use the following infection control measures to prevent and slow the spread of respiratory infections in your facility.



Use of well-fitting masks or respirators, that cover a person's mouth and nose, can prevent the spread of germs when people are breathing, talking, sneezing, or coughing.



Encourage everyone in your facility to get recommended vaccinations. Vaccination is a safe and effective strategy for reducing disease spread and staff absenteeism.



Practice physical distancing, particularly in shared spaces such as waiting rooms, and implement screening and triage procedures. Use signs as visual reminders for patients, implement rapid screening, and separate symptomatic patients as soon as possible.



Practice respiratory hygiene and cough etiquette and encourage others to do the same. Provide masks, tissues, and no-touch receptacles for tissue disposal at facility entrances, triage areas, and waiting rooms.



Clean your hands regularly with an alcohol-based hand sanitizer or soap and water. Share key messages and reminders within your facility by using CDC's [Clean Hands Count](#) resources.



Clean and disinfect regularly. Lobby areas, cafeterias, and waiting rooms are all high-traffic spaces where germs can spread. It's also important to disinfect reusable devices and not reuse disposable items.



Check that the air handling in your facility is functioning as it should. Make sure air vents aren't blocked, and consult with facilities management to ensure the heating, ventilation, and air conditioning, or HVAC, system is working efficiently for proper ventilation.

For more information on infection control recommendations for healthcare settings, visit <https://bit.ly/3O1UXhM>

www.cdc.gov/ProjectFirstline

WE HAVE THE POWER
TO STOP INFECTIONS.
TOGETHER.



<https://www.cdc.gov/infectioncontrol/pdf/projectfirstline/IPC-Respiratory-Viruses-508.pdf>

Occupational Health & Staff Illnesses

- Sick policies should **encourage self-monitoring** & reporting of infectious illnesses without punitive repercussions
- Educate staff to report s/s of infection, including fever, diarrhea, cough, sore throat & skin lesions to IP/OH/manager
- Remember that staff see each other outside of work!
- Review staffing contingency plans!
- Include outbreaks in emergency preparedness exercises!

TABLE 8.2: CDC WORK RESTRICTIONS FOR HEALTHCARE PERSONNEL

Summary of suggested work restrictions for healthcare personnel exposed to or infected with infectious diseases of importance in healthcare settings, in the absence of state and local regulations.

Disease/Problem	Work Restriction	Duration	Category
Conjunctivitis	Restrict from patient contact and contact with the patient's environment	Until discharge ceases	II
Cytomegalovirus infections	No restriction		II
Diarrheal diseases:			
Acute stage (diarrhea with other symptoms)	Restrict from patient contact, contact with the patient's environment, or food handling	Until symptoms resolve	IB
Convalescent stage, <i>Salmonella</i> spp.	Restrict from care of high-risk patients	Until symptoms resolve; consult with local and state health authorities regarding need for negative stool cultures	IB
Enteroviral infections	Restrict from care of infants, neonates, and immunocompromised patients and their environments	Until symptoms resolve	II
Hepatitis A	Restrict from patient contact, contact with patient's environment, and food handling	Until 7 days after onset of jaundice	IB
Hepatitis B:			
Personnel with acute or chronic hepatitis B surface antigenemia who do not perform exposure-prone procedures	No restriction*; refer to state regulations; standard precautions should always be observed		II
Personnel with acute or chronic hepatitis B e antigenemia who perform exposure-prone procedures	Do not perform exposure-prone invasive procedures until counsel from an expert review panel has been sought; panel should review and recommend procedures the worker can perform, taking into account specific procedure as well as skill and technique of worker; refer to state regulations	Until hepatitis B e antigen is negative	II
Hepatitis C	No recommendation		
Herpes simplex:			
Genital	No restriction		II
Hands (herpetic whitlow)	Restrict from patient contact and contact with the patient's environment	Until lesions heal	IA
Orofacial	Evaluate for need to restrict from care of high-risk patients		II

TABLE 8.2: CDC WORK RESTRICTIONS FOR HEALTHCARE PERSONNEL, APIC IP Guide to LTC, 2nd Edition, 2019

Active Health Screening of Residents

- The **nursing assessment** is the cornerstone of resident care and critical to infection prevention efforts, including outbreak management (APIC 2019)
- Recognize there are more CNAs than RNs in LTC
- **Fever is absent** in more than half of LTC facility residents with a serious infection, making evaluation challenging when infection is suspected (APIC 2019)
- Educate staff on criteria to exclude/delay potentially infectious residents from group activities & isolate per protocols!

FIGURE 6.1: BRI SCALE

Infection Risk Scale

PLEASE COMPLETE THIS ASSESSMENT

- On Admission
- With MDS Schedule (where applicable)
- For any significant change in resident condition

RESIDENT INFORMATION:	Date	Date	Date	Date
First name: _____	___/___/___	___/___/___	___/___/___	___/___/___
Last name: _____	___/___/___	___/___/___	___/___/___	___/___/___
Birthdate/ID: _____	___/___/___	___/___/___	___/___/___	___/___/___
ENTER SCORE: 0 = NO 1 = YES				
Current Active Infection, Ventilator, Dialysis, Immune System Compromise (HIV, Splenectomy, Chemotherapy, Chronic steroid use) (Automatic High Risk 18)				
History of infection/antibiotic use during the last 6 months				
History of hospitalization during the last 6 months				
History of colonization/past infection with MDR O (MRSA, VRE, C-diff)				
MRSA nasal colonization				
Dependent for Personal Care				
Significant, Unplanned Wt. Loss (5%)				
PEG tube/3 tube, surgical implant past 12 months				
Swallowing issues/Aspiration Risk				
Diagnosis of Diabetes				
Diagnosis of Urinary Retention				
Diagnosis of Neuropathy				
Diagnosis of Peripheral Vascular Disease				
Open Wounds				
Oxygen/Nebulizer Use				
Vascular Access (PICC, Port, Peripheral IV)				
Urinary Catheter				
Male Gender (MRSA Colonization)				
Refuses Immunization				
TOTAL (MAXIMUM 18)				
✓ Low risk (L) = 0-4 ✓ Moderate risk (M) = 5-9 ✓ High risk (H) = 10-18	} Care suggestions on page 2			
ADDRESSED ON CARE PLAN AND WITH CARE TEAM				
				INITIALS

BRI Scale for Assessing Infection Risk in LTC,
APIC IP Guide to LTC, 2nd Edition, 2019

Outbreak Prevention: Vaccination

- Promote vaccination among vulnerable populations like LTC residents AND the HCP who care for them!
- CMS requires skilled nursing facilities to screen and offer influenza, pneumococcal & C19 vaccination for all new resident admissions (APIC 2019)
- Ensure state-based historic, electronic vaccination records interfaces with electronic health records (EHRs) whenever possible
- Check for proper vaccine storage when rounding (very specific requirements)

Table 1 Recommended Adult Immunization Schedule by Age Group, United States, 2024

Vaccine	19–26 years	27–49 years	50–64 years	≥65 years
COVID-19	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)			
Influenza inactivated (IIV4) or Influenza recombinant (RIV4)	1 dose annually			
Influenza live, attenuated (LAIV4)	1 dose annually			
Respiratory Syncytial Virus (RSV)	Seasonal administration during pregnancy. See Notes.			≥60 years
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (see notes)			
Measles, mumps, rubella (MMR)	1 dose Tdap, then Td or Tdap booster every 10 years			For healthcare personnel, see notes
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses	
Zoster recombinant (RZV)	2 doses for immunocompromising conditions (see notes)		2 doses	
Human papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal (PCV15, PCV20, PPSV23)				See Notes
Hepatitis A (HepA)	2, 3, or 4 doses depending on vaccine			
Hepatitis B (HepB)	2, 3, or 4 doses depending on vaccine or condition			
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication, see notes for booster recommendations			
Meningococcal B (MenB)	19 through 23 years	2 or 3 doses depending on vaccine and indication, see notes for booster recommendations		
Haemophilus influenzae type b (Hib)	1 or 3 doses depending on indication			
Mpox				

 Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of immunity
 Recommended vaccination for adults with an additional risk factor or another indication
 Recommended vaccination based on shared clinical decision-making
 No recommendation/ Not applicable

<https://www.cdc.gov/vaccines/schedules/download/adult/adult-combined-schedule.pdf>

MDRO Reduction: Antimicrobial Stewardship

Antibiotic Stewardship in Nursing Homes



MDRO Reduction: Antimicrobial Stewardship

- IPC cannot achieve overarching MDRO outbreak prevention goals without addressing antimicrobial stewardship
- If *C. diff* is an issue, IPs must assess & address appropriate testing (dx stewardship) during HO-CDI root cause analyses (RCA).
- Per CDC (2021), clinicians should:
 - Consider noninfectious causes of diarrhea
 - DC laxatives, wait 48 hours before CD testing
 - Do not test for cure (tests remain + for ≥ 6 weeks)

Nursing Home Antimicrobial Stewardship Guide



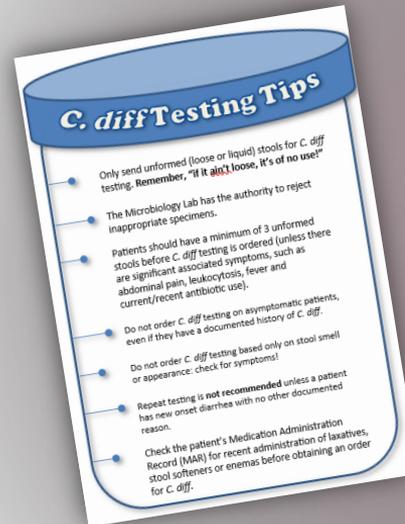
Overview of the Guide
The Nursing Home Antimicrobial Stewardship Guide provides toolkits to help nursing homes optimize their use of antibiotics.

Browse Antimicrobial Stewardship Toolkits
Toolkits on four topic areas are available.

Implement, Monitor, and Sustain a Program
Two toolkits help nursing homes start and maintain antimicrobial stewardship programs.

[Back to Top](#)

<https://www.ahrq.gov/nhguide/index.html>



C. Diff Testing
Tip HCP
pocket cards,
developed by
presenter

Improving Environmental Hygiene: A Practical Guide to Implementation

Common **EVS** Disinfection Challenges



UNACHIEVABLE CONTACT TIMES

If using a 10-minute product, observe cleaning & watch for reapplication to keep surfaces wet. (It's *not* happening!)



QUAT BINDING RISKS

Cotton & some microfibers are incompatible with QACs
Boyce 2016



SPRAYING & IMMEDIATELY WIPING DRY

In-progress cleaning & disinfection multi-center study



CONTAMINATED CLEANING CLOTHS & DOUBLE DIPPING

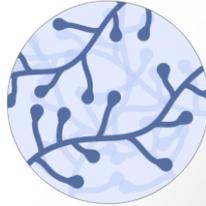
Look where & how rags & mops are stored, not only in EVS but also on the carts & in closets!
Sifuentes 2013

Common **EVS** Disinfection Challenges



IMPROPER DILUTION

Dispensers require maintenance (Boyce 2016). EVS techs may also manually mix chemicals if dispensers are malfunctioning.



EMERGING PATHOGEN CLAIMS

Quaternary ammonium compounds (QACs) are the most used EVS disinfectants (Han 2021), but do not have *Candida auris* efficacy.



INEFFECTIVE CLEANING TOOLS

Cotton string mops are bulky, more work intensive & contribute to cross contamination
EPA 2002



CONSISTENT ROOM CLEANING

Only 49% of high-touch surfaces cleaned in LTC; shared rooms had lower compliance, more difficult to clean
McKinley et al 2023

EVS EXPECTATIONS SURVEY RESULTS

	Leader	Tech
Toilet bowl	+	+
Toilet bedpan cleaner	×	+
Toilet seat	+	+
Sink/faucet	+	+
Toilet flush handle	+	+
Toilet handrails	+	+
Bathroom sink/faucet	+	+
Overbed table	+	+
Door knobs	+	+
Light switches	+	+

	Leader	Tech
Telephone	+	×
Bedside table	+	×
Cabinets*	+	×

	Leader	Tech
Computer	×	×
Bed rails	×	×
Bed controls	×	×
Call button	×	×
Chair	×	×
IV pump & pole	×	×
Commode	×	×
Barcode scanner*	×	×
Thermometer*	×	×



IP: Who disinfects what EVS doesn't?

You can do the same survey at your facility! So easy!

*Not currently on CDC list. Site surveys analyzed individually. Results reflect 4 completed surveys.

1 First, **collaborate with EVS** & determine the agreed upon **disinfectant and cleaner portfolio**, factoring in **faster/achievable contact times, broader pathogen coverage, safety, ease of use** & how a disinfectant manufacturer can help achieve the facility's goals.



2 Next, **clarify cleaning & disinfection roles & responsibilities** and implement a **(re)training and communication program to improve cleaning compliance of high touch surfaces AND portable medical equipment**, including any **new product implementation**.



3 Lastly, **validate the efficacy** of your program using visual audits, ATP, fluorescent marking or a combination of all three. Consider **adjunct disinfection**, like UV-C, to offset any variability in manual cleaning & disinfection.



How to Evaluate Current Disinfectant Portfolio

	CONSIDERATION	QUESTIONS TO ASK
	Kill Claims	Does the product kill relevant pathogens that cause HAIs, cause outbreaks & viral threats?
	Kill Times & Wet Contact Time	How quickly does the product kill prevalent healthcare pathogens? Have you tested contact times internally? Does the product dry too quickly?
	Safety	Does the product have an acceptable toxicity & flammability rating? What PPE is required? Have you ever worked directly with the product?
	Ease of Use	Odor acceptable, pleasant for the user shelf-life, in convenient forms (wipes, spray) water soluble, works in organic matter, one-step (cleans/disinfects)
	Other Factors	Supplier offers comprehensive training/education, 24-7 customer support, overall cost acceptable (product capabilities, cost per compliant use, help standardize disinfectant in facility/system)

Ready-to-Use Wipes vs. Dilutable Disinfectants?



- Wipes can be **cost effective** (Wiemkin 2014) & **sustainable** (Daggett 2017).
- No mixing, no errors.
- Grab & go!
- Proven efficiency & accessibility among our clinical teams, why not EVS?



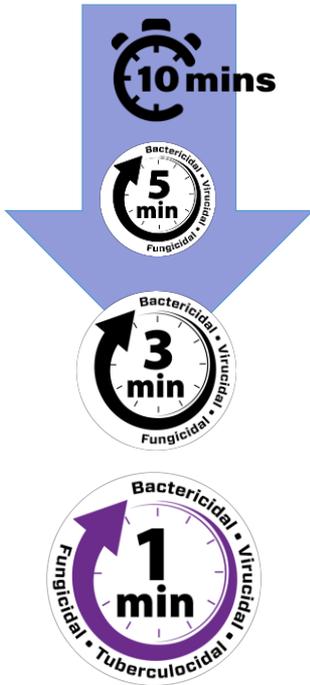
- Ensure **dispensing equipment** is working properly (EVS)
- **Label** ALL secondary containers (mop & rag buckets, bottles, etc)!
- Containers should be **cleaned, rinsed & allowed to dry daily** (not happening!)
- No **topping off** or **double dips**!

Wipe Life Cycle Assessment: It's More than Where the Wipe Ends Up!



Reduce Variability, Maximize Simplicity

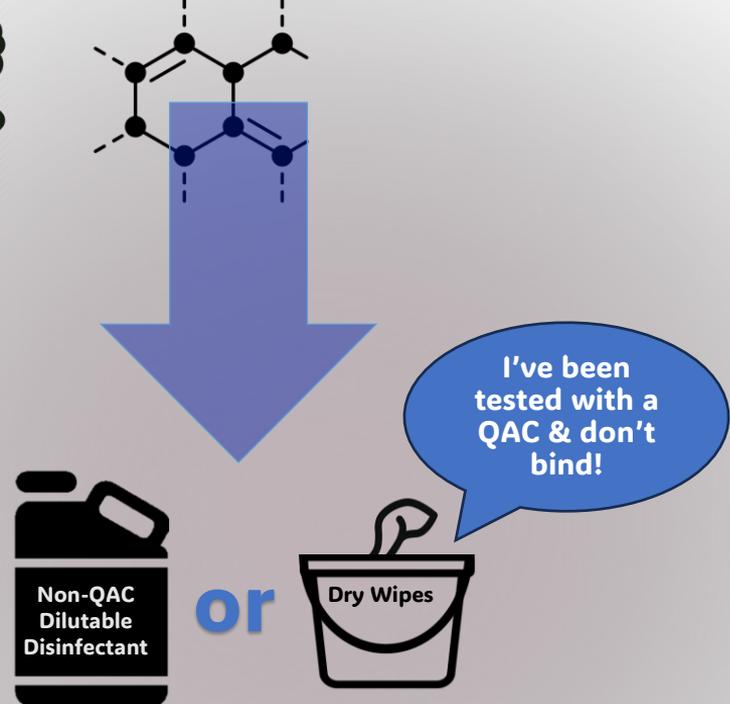
Contact Times



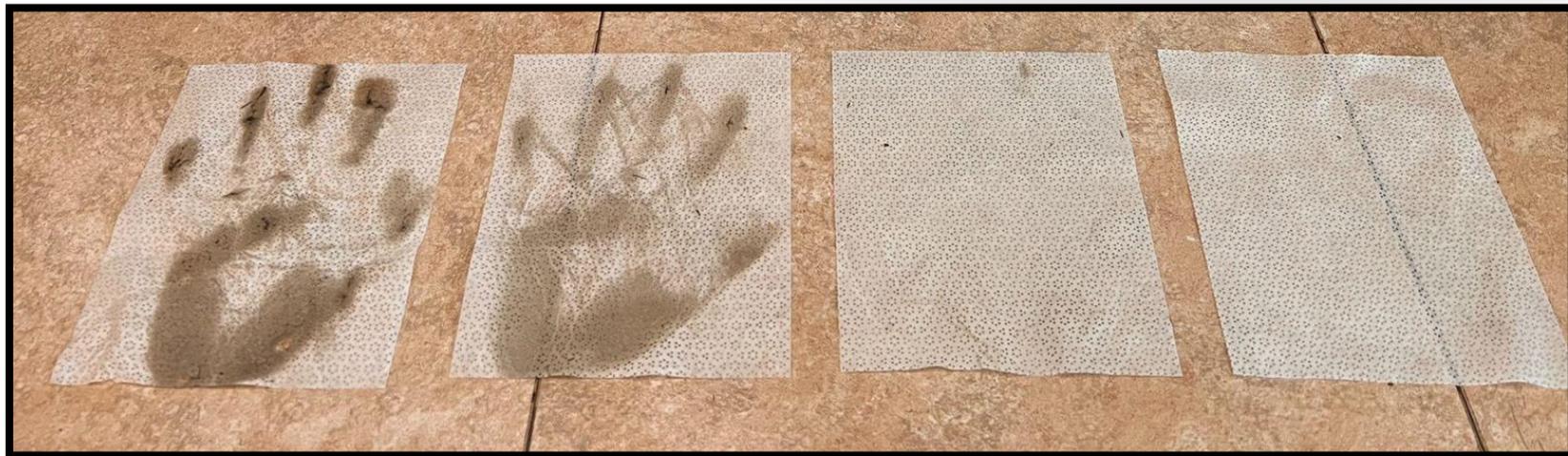
Cleaning Tools



Compatibility (Quat Binding)



WE MUST REMOVE VISIBLE DIRT BEFORE SANITIZING OR DISINFECTING!



WIPE 1

First pass shows
significant dirt removal

WIPE 2

Less soil released at
second wipe

WIPE 3

Barely any soil on third
wipe

WIPE 4

Surface disinfected, 1-
minute wet time



Soft Surface Sanitizing

- Recent study (Gibson 2022) in 6 NHs, 40% of residents' privacy curtains were contaminated with an MDRO
- “Soft surface” claims are limited, by the EPA, to “sanitizer.”
 - The sanitization for non-food contact surfaces is generally accepted as 99.9% (a **3-log reduction**).
 - The sanitizer claim is based on laboratory testing of **only two bacteria**, *not* viruses or fungi.
- EPA recently published soft surface disinfectant (6-log reduction) testing methods, so we can expect to see more products with these claims soon.

Robotic companion “pets” can be effectively cleaned & reprocessed

- Often used on memory care units, decrease anxiety & depression
- Include fur, soft & hard plastic components
- Cleaned with disinfectant wipes; sprayed w/ sanitizer & brushed; all parts “vigorously wiped” per instructions for use (IFUs)
- Results: process effectively removes high number of bacterial pathogens

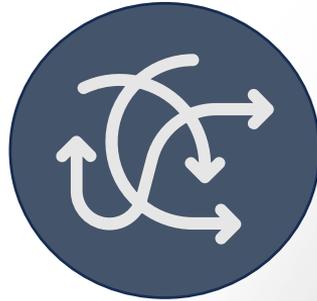


Common **Clinical** Disinfectant Challenges



POINT-OF-CARE DEVICE DISINFECTION

Finding visible blood & body fluids on shared portable medical equipment (PME) is a risk not only for **pathogen transmission**, but also **BBP outbreaks**.



UNCLEAR ROLES & RESPONSIBILITIES

Who is responsible for cleaning & disinfectant what, when & with which products? EVS is **not responsible** for everything!



POINT-OF-CARE DISINFECTANT AVAILABILITY

Are disinfectant wipes available to reprocess shared portable medical equipment? Are disinfectants “hidden” due to safety concerns? Staff will *not* go searching!



COMPATIBILITY VS. IFUs

IFUs can be challenging for IP teams to navigate. Does a wipe damage the equipment, or has it simply not been tested?

Whose job is it, anyway? EVS, clinical user or central processing?



Bedside commode



IV Pump controls



Bedrails



Glucometer

FIGURE 9.2: ENVIRONMENTAL SERVICES CHECKLIST FOR DAILY CLEANING OF RESIDENT ROOM^{22,23}

DATE: ___/___/___ UNIT: _____ ROOM: _____ INITIAL OF EVS STAFF (OPTIONAL) _____

Evaluate the following priority sites for each resident room

Cleaning Task	Cleaned	Not Cleaned	Not present in room
High dusting performed:			
Use high duster/mop head: wipe ledges (shoulder high and above)			
Vents			
Lights (do not high dust over the resident)			
Dust TV: rotate and dust screen and wires			
Damp dust: Cloths and spray bottle of disinfectant for damp wipe:			
Ledges (shoulder high)			
Door handles			
Room furniture (bureaus, chairs, etc.)			
Bedside table: disinfect surface			
Equipment per policy			
Glass surfaces			
Bathroom: All surfaces:			
Toilet			
Ledges in bathroom			
Door handles			
Sink (especially faucet handles)			
Shower stall			

Tailor EVS checklist appropriate to design & needs of facility!

Waste basket:	
Liner bags: close before removing	
Clean and disinfect if can is visibly soiled	
Sharps container:	
Check level of sharps (remove if 3/4 full)	
Take to soiled utility room after securely closing	
Clean and disinfect high-touch surfaces near resident:	
Siderails	
Call light	
Remote control unit	
Telephone	
IV pole and controls	
Bedside table handle	
Floor cleaning and disinfection:	
Sweep floor before wet mopping	
With wet mop, start farthest from door; half of room first then the other half	
Bathroom shower floor	
Bathroom floor	

But do NOT forget clinical portable medical equipment!

New Equipment Cleaning Labels

Please be advised of the **new cleaning labels** on select medical equipment to assist with proper device cleaning practices:

Sticker **SHAPE** provides who is responsible for cleaning the device:

- = Central Sterile Services (CSS)
- = Device User
- = Environmental Services (EVS)

Sticker **COLOR** provides what cleaner to use:

- Orange = Bleach Wipes
- Purple = Purple Top Wipes

All equipment used in Special Contact rooms should be cleaned with bleach, regardless of the sticker.

"After pt use" defined as: when the device is to be used on a new patient. Please contact Infection Control (x6437) with any questions!

#APIC2022

Selected Equipment for Labeling

Equipment or Item	Group Responsible	Manufacturer Recommended
IV pump	CSS	Bleach
SCD Pump	EVS	Bleach
Vital Sign Machines	User	Bleach
Wall Mounted Vital Sign Machines	EVS	Bleach
EKG Machine	User	Bleach
PCA	CSS	Bleach
Feeding Pump	EVS	Bleach
Defibrillator on Code Cart	CSS	Quaternary Ammonium
Wall Mounted Patient Monitor/Leads/Pulse Ox/Cuff	EVS	Quaternary Ammonium
Bladder Scanner	User	Quaternary Ammonium
Telemetry Pack	User	Quaternary Ammonium

Dabkowski M. 2022. **Improving Cleaning Compliance of Noncritical Equipment with Labels and Auditing.** APIC 2022 oral abstract. Accessed securely online as conference attendee at

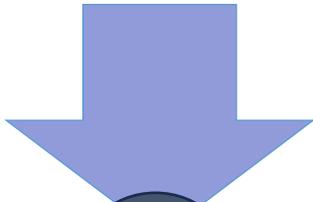
<https://c53ac34983397363b9e2-fa85729df59db74d0fed9dc21ffea231.ssl.cf1.rackcdn.com//1884872-1491675-004.pdf>.

Increase Accessibility to Clinical Disinfectants

Review Safety Rating

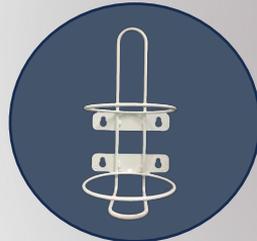


EPA Category II



EPA Category IV

Increase Accessibility & Compliance



Include PME in Validation



Validating the LTC Environmental Hygiene Program*



Easy to perform, cost effective, engages staff

Difficult to standardize, may be seen as punitive w/o team engagement, Hawthorne effect, IP resources



Encourages resident participation, including family & visitors, quantitative measurement

Subjectivity, **emphasizes visible cleanliness only, not true disinfection**, no benchmarking



May be useful during an outbreak or research project, quantitative

Not recommended by CDC as routine measure, **high cost**, long turn around times, results may not correspond to the outbreak



Easy to use & train others, immediate feedback, can be helpful when evaluating new/novel cleaning methods

Detection of organic matter (bioburden) is **not reliable predictor** of infection risk, **high cost of equipment & supplies**, storage of swabs



Very inexpensive, easy to perform, immediate results

Does not identify pathogens, only detects cleaned/not cleaned, may be seen as punitive w/o team engagement

In summary

- LTC settings house vulnerable populations where hand hygiene & environmental disinfection are uniquely challenging
- Multiple studies have demonstrated high levels of MDRO contamination not only on residents' hands, but also their rooms & common areas.
- Select cleaning, sanitizing/disinfectant products based on facility needs & risk assessment.
- Effective LTC outbreak prevention requires adherence to **all** IPC fundamentals!



Diversey Contacts



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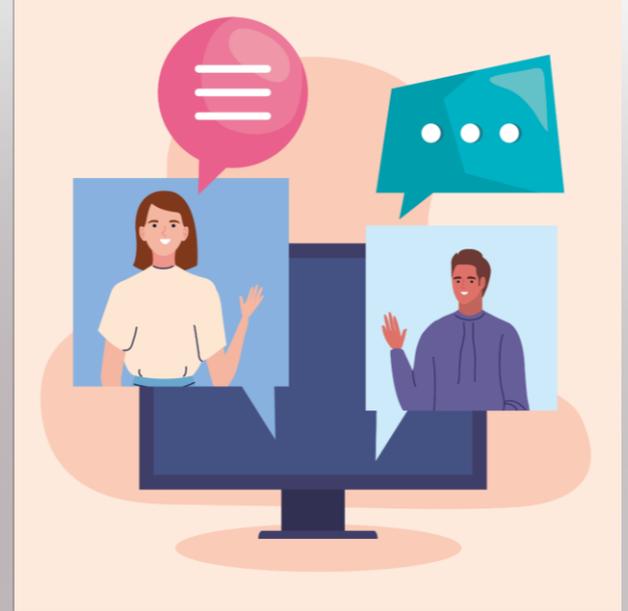
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References

- Association for Professionals in Infection Control and Epidemiology. (2019). Infection Prevention Guide to Long-Term Care, 2nd edition.
- Boyce JM, et al. Quaternary ammonium disinfectant issues encountered in an environmental services department. *ICHE* 2016;37(3):340-2. http://journals.cambridge.org/abstract_S0899823X15002998.
- Cao J, Min L, Lansing B, Foxman B, Mody L. Multidrug-Resistant Organisms on Patients' Hands: A Missed Opportunity. *JAMA Intern Med*. 2016 May 1;176(5):705-6. doi: 10.1001/jamainternmed.2016.0142. PMID: 26974592; PMCID: PMC5828500.
- Centers for Disease Control & Prevention (CDC). 2021. Strategies to Prevent *Clostridioides difficile* Infection in Acute Care Facilities. Available online at <https://www.cdc.gov/cdiff/clinicians/cdi-prevention-strategies.html>. Accessed on Feb 9 2024.
- Daggett D. 2017. ThinkStep Life Cycle Assessment: Reusable versus Disposable Wipes. Third part life cycle assessment. Report available upon request.
- Environmental Protection Agency (EPA). 2002. Using Microfiber Mops in Hospitals: Environmental Best Practices for Health Care Facilities. Available online at <https://archive.epa.gov/region9/waste/archive/web/pdf/mops.pdf>. Accessed Feb 8 2024.
- Gibson KE, Mills JP, Mantey JA, Lansing BJ, Cassone M, Mody L. Multidrug-resistant organism (MDRO) contamination of privacy curtains in nursing homes. *Infect Control Hosp Epidemiol*. 2022 May;43(5):666-668. doi: 10.1017/ice.2021.60. Epub 2021 May 31. PMID: 34053470; PMCID: PMC9045556. Gontjes KJ, Gibson KE, Lansing B, Cassone M, Mody L. Contamination of Common Area and Rehabilitation Gym Environment with Multidrug-Resistant Organisms. *J Am Geriatr Soc*. 2020;68(3):478-485. PMCID: PMC9190293
- Han Z, Pappas E, Simmons A, Fox J, Donskey CJ, Deshpande A. Environmental cleaning and disinfection of hospital rooms: A nationwide survey. *Am J Infect Control*. 2021 Jan;49(1):34-39. doi: 10.1016/j.ajic.2020.08.008. Epub 2020 Aug 13. PMID: 32798634.

References

- McKinley L, Goedken CC, Balkenende E, Clore G, Hockett SS, Bartel R, Bradley S, Judd J, Lyons G, Rock C, Rubin M, Shaughnessy C, Reisinger HS, Perencevich E, Safdar N. Evaluation of daily environmental cleaning and disinfection practices in veterans affairs acute and long-term care facilities: A mixed methods study. *Am J Infect Control*. 2023 Feb;51(2):205-213. doi: 10.1016/j.ajic.2022.05.014. Epub 2022 May 27. PMID: 35644297.
- McKinnell JA, Miller LG, Singh RD, Gussin G, Kleinman K, Mendez J, Lauer B, Catuna TD, Heim L, Saavedra R, Felix J, Torres C, Chang J, Estevez M, Mendez J, Tchakalian G, Bloomfield L, Ceja S, Franco R, Miner A, Hurtado A, Hean R, Varasteh A, Robinson PA, Park S, Tam S, Tjoa T, He J, Agrawal S, Yamaguchi S, Custodio H, Nguyen J, Bittencourt CE, Evans KD, Mor V, McConeghy K, Weinstein RA, Hayden MK, Stone ND, Steinberg K, Beecham N, Montgomery J, DeAnn W, Peterson EM, Huang SS. High Prevalence of Multidrug-Resistant Organism Colonization in 28 Nursing Homes: An "Iceberg Effect". *J Am Med Dir Assoc*. 2020 Dec;21(12):1937-1943.e2. doi: 10.1016/j.jamda.2020.04.007. Epub 2020 Jun 16. PMID: 32553489; PMCID: PMC7708431.
- Mody L, Washer LL, Kaye KS, Gibson K, Saint S, Reyes K, Cassone M, Mantey J, Cao J, Altamimi S, Perri M, Sax H, Chopra V, Zervos M. Multidrug-resistant Organisms in Hospitals: What Is on Patient Hands and in Their Rooms? *Clin Infect Dis*. 2019 Nov 13;69(11):1837-1844. doi: 10.1093/cid/ciz092. PMID: 30980082; PMCID: PMC6853699.
- Montoya A, Cassone M, Mody L. Infections in Nursing Homes: Epidemiology and Prevention Programs. *Clin Geriatr Med*. 2016 Aug;32(3):585-607. doi: 10.1016/j.cger.2016.02.004. PMID: 27394025.
- Rutala WA, et al. Selection of the ideal disinfectant. *ICHE* 2014;35(7):855-65. <http://www.jstor.org/stable/10.1086/676877>
- Sifuentes LY, Gerba CP, Weart I, Engelbrecht K, Koenig DW. Microbial contamination of hospital reusable cleaning towels. *Am J Infect Control*. 2013 Oct;41(10):912-5. doi: 10.1016/j.ajic.2013.01.015. Epub 2013 Mar 22. PMID: 23523522.
- Wiemken TL, et al. The value of ready-to-use disinfectant wipes: compliance, employee time, and costs. *AJIC* 2014;42:329-30. <http://dx.doi.org/10.1016/j.ajic.2013.09.031>