



COVID-19 and HAI Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

July 22nd, 2022

Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to **All Panelists**
- Slides and recording will be made available later
- For continuing education credit, complete evaluation at <https://redcap.dph.illinois.gov/surveys/?s=MHXT4WFJAXTD4NE9> by July 29th, 2022
 - Credit only available for the live session
 - Must be registered individually to receive credit

Agenda

- Upcoming Webinars
- Long-term Care COVID Updates
- Transmission-Based Precautions
- Open Q & A

Upcoming COVID-19 and Infection Prevention and Control Updates

1:00 pm - 2:00 pm

Date	Infection Control Topic	Registration Link
Friday, August 5 th	Antibiotic Stewardship	https://illinois.webex.com/illinois/onstage/g.php?MTID=e2fa25d63f0a14c8f5550b1fb21105d4e
Friday, August 19 th	Enhanced Barrier Precautions	https://illinois.webex.com/illinois/onstage/g.php?MTID=ee750be37643332f7f2de74a9a19e08ce
Friday, September 9 th	Wound Care	https://illinois.webex.com/illinois/onstage/g.php?MTID=e2c58441915566a280a70bc4e01ef23a4

Previously recorded webinars can be viewed on the [IDPH Portal](#)

Continued Education will be offered. It will only be for the live presentation. Please ensure when registering that your name and email are correctly spelled. To receive the continued education, you must complete a training survey, which will be provided with the link to the recording.



Congregate Care Updates

July 22, 2022

Objective

- Integrate updates to COVID-19 prevention and control measures into facility practices

Free Antigen Tests

IDPH

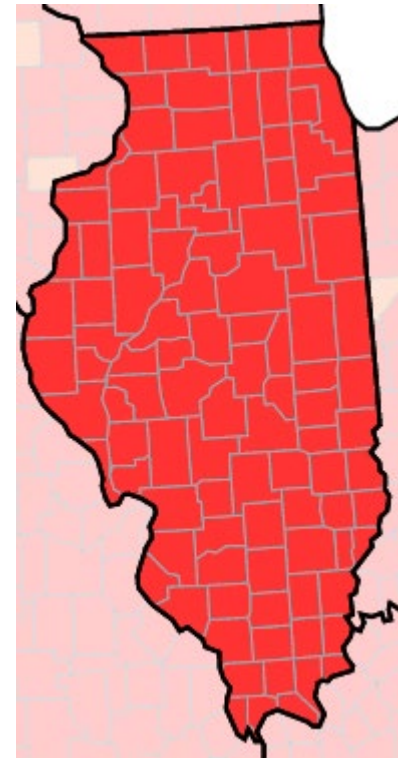
- Long term care facilities (LTCF) must have all the following in place to be eligible:
 - A CLIA waiver that allows for the administration of antigen testing.
 - A provider order for antigen testing that has been approved and signed by a medical professional.
 - Be registered to report all positive antigen test results to the State of Illinois.
- Complete the REDCap survey by July 29th to receive the free antigen tests.
<https://redcap.dph.illinois.gov/surveys/?s=T78A4HAKFTPWXAA>

Federal Government

- Free direct shipments of BinaxNOW COVID-19 rapid antigen tests from Health and Human Services (HHS)
- Email the HHS Binax Team at Binax.Team@hhs.gov and let them know that you are a LTCF interested in signing-up for the free shipments of BinaxNOW COVID-19 antigen tests.

Updated Guidance Document Preview

- Facilities must monitor their community transmission level **once a week on** Monday and adjust the frequency of staff testing accordingly.



Long-term Care Updates

➤ Application of LTC Guidance

Executive Order 2022-16

Issued date: July 14, 2022

Expiration date: July 24, 2022

Reissues reissued previous COVID-19 executive orders and is applicable to nursing homes and other long-term care (LTC) facilities.

Revises the frequency of testing staff who are not up to date (77 Ill. Admin. Code 300.698; 77 Ill. Admin Code 350.769; 77 Ill. Admin. Code 390.759)



FILED
INDEX DEPARTMENT
JUL 12 2022
IN THE OFFICE OF
SECRETARY OF STATE

SPRINGFIELD, ILLINOIS

July 12, 2022

Executive Order 2022-16

EXECUTIVE ORDER 2022-16
(COVID-19 EXECUTIVE ORDER NO. 109)

WHEREAS, protecting the health and safety of Illinoisans is among the most important functions of State government; and,

WHEREAS, since early March 2020, Illinois has faced a pandemic that has caused extraordinary sickness and loss of life, infecting over 3,480,000, and taking the lives of more than 34,200 residents; and,

WHEREAS, as Illinois continues to respond to the public health disaster caused by Coronavirus Disease 2019 (COVID-19), a novel severe acute respiratory illness that spreads rapidly through respiratory transmissions, the burden on residents, healthcare providers, first responders, and governments throughout the State has been unprecedented; and,

WHEREAS, numerous variants have emerged over the course of the pandemic and continue to emerge, each with different transmissibility and degrees of severity; and,

Emergency Rules

77 Ill. Adm. Code 300

77 Ill. Adm. Code 350

77 Ill. Adm. Code 390

Table 1: Routine Testing Intervals of Staff who work in facilities licensed under Ill. 77 Adm. Codes 300, 350, and 390 who are Not Up to Date with COVID-19 Vaccinations by Community Transmission Levels

Community Transmission Level	Per emergency rules (Sections 300.698, 350.769, and 390.759) effective July 14, 2022 Minimum Testing Frequency of Staff Who Are Not Up to Date with COVID-19 Vaccinations *
LOW	Testing is not required
MODERATE	Once a week
SUBSTANTIAL	Twice a week
HIGH	Twice a week

*Up to date staff do not need to be routinely tested.

Emergency Rules

77 Ill. Adm. Code 295

77 Ill. Adm. Code 330

77 Ill. Adm. Code 370

77 Ill. Adm. Code 380

Table 2: Routine testing intervals of staff who work in facilities licensed under Ill. 77 Adm. Codes 295, 330, 370, 380, who are not fully vaccinated by community transmission levels

Community Transmission Level	Per Illinois emergency rules (Sections 295.4047, 330.794, 370.4, and 380.643) effective July 14, 2022, Minimum Testing Frequency of Staff who are not Fully Vaccinated*
LOW	Testing is required at a minimum of once a week
MODERATE	Once a week
SUBSTANTIAL	Twice a week
HIGH	Twice a week

*Fully vaccinated staff do not need to be routinely tested.

**Routine Testing Requirements for Healthcare Personnel Not Fully Vaccinated or Not up to date
Based upon Community Transmission Levels and Licensure Codes**

COMMUNITY TRANSMISSION LEVELS	HIGH	SUBSTANTIAL	MODERATE	LOW
Facilities licensed under 77 Ill. Adm. Code 300, 350, 390—HCP NOT UP TO DATE	Twice a week (at least 3 days apart)	Twice a week (at least 3 days apart)	Once a week	Routine testing is not required
Facilities licensed under 77 Ill. Adm. Code 300, 350, 390— HCP are UP TO DATE	Routine testing is not required	Routine testing is not required	Routine testing is not required	Routine testing is not required
Facilities licensed under 77 Ill. Adm. Code 295, 330, 370, 380—HCP NOT FULLY VACCINATED	Twice a week (at least 2 days apart)	Twice a week (at least 2 days apart)	Once a week	Once a week
Facilities licensed under 77 Ill. Adm. Code 295, 330, 370, 380— HCP are FULLY VACCINATED	Routine testing is not required	Routine testing is not required	Routine testing is not required	Routine testing is not required

Routine COVID-19 Testing is not required for HCP that have had COVID-19 in the prior 90 days

Admissions/Readmissions

Table 3: New Admission/Readmissions and Residents who Leave the Facility

Resident vaccination status	Is quarantine of resident necessary?	Is testing of the resident necessary?	
		Low-to-moderate community transmission	Substantial-to-high community transmission
Not up to date with COVID-19 vaccinations resident out for less than 24 hours	No	No	No
Not up to date with COVID-19 vaccinations, resident out for 24 hours or more	Yes	No	Yes, test as readmission
Up to date with COVID-19 vaccinations, resident out for less than 24 hours	No	No	No
Up to date with COVID-19 vaccinations resident out for 24 hours or more	No	No	Yes, test as readmission



NOTE: Residents being admitted or readmitted who have been diagnosed with COVID-19 in the last 90 days do not require quarantine or testing as long as they have no signs or symptoms suggestive of acute COVID-19 infection. if they becomes symptomatic then testing is required

TABLE 5 (p.33) Updated

*Aligns with CDC . No longer requires test within 48 hours of return

Contingency			
Work Exclusion	Required Testing		W
5 days off	May return after 5 days <u>with or without a negative test</u> if asymptomatic or have mild to moderate symptoms that are improving and fever-free for 24 hours. Must have one negative test¹ completed within 48 hours before work shift begins or rapid antigen test prior to shift.		All e)

Previous Statement from March 2022 guidance



Table 5: Work Exclusions & Restrictions for HCP with COVID-19 Infection - Updated

Vaccination Status	Conventional		Contingency		Crisis (Must notify LHD and OHCR) ²	
	Work Exclusion	Required Testing	Work Exclusion	Required Testing	Work Exclusion	Required Testing
Up to date and Not up to date	10 days off (ideal)	No testing required to return to work	5 days off	May return after 5 days with or without a negative test if asymptomatic or have mild to moderate symptoms that are improving and fever-free for 24 hours.	Allowed to work except, should have duties prioritized	No additional testing required to work
	OR					
	7 days off	May return to work after 7 days if asymptomatic or have mild to moderate symptoms that are improving and fever-free for 24 hours. Must have one negative test¹ completed within 48 hours before work shift begins or rapid antigen test prior to shift				

¹Either an antigen test or NAAT can be used as a clearance test to return to work; however, antigen testing is preferred because a NAAT test may remain positive for some time following infection.
²LHD – Local Health Department, OHCR = IDPH Office of Health Care Regulation

Table 6 (p. 34) Updated

*Aligns with CDC. Removed twice a shift screening; adjusted testing requirements under contingency staffing; removed testing requirement under crisis staffing

Table 6: Work Exclusions & Restrictions for Asymptomatic HCP with Exposures - Updated

Vaccination Status	Conventional		Contingency		Crisis (Must notify LHD and OHCR)	
	Work Exclusion	Required Testing	Work Exclusion	Required Testing	Work Exclusion	Required Testing
Up to Date	Allowed to work with testing Must be asymptomatic	Allowed to work with negative test completed on days 1* and 5-7 post exposure, unless within 90 days of COVID-19 infection. Note: HCP with <i>prolonged, continued exposure in the home</i> , must additionally test weekly for two weeks after the last exposure date.	Allowed to work Must be asymptomatic	No additional testing required to work but include HCP in outbreak testing completed every 3-7 days , unless within 90 days of COVID-19 infection	Allowed to work Must be asymptomatic	No additional testing required to work but include HCP in outbreak testing completed every 3-7 days , unless within 90 days of COVID-19 infection.
Not Up to Date	10 days off (ideal)	If excluded from work for 10 days, no testing is required to return to work. Note: HCP with <i>prolonged, continued exposure in the home</i> , are allowed to work with negative test completed on days 1* and 5-7 post exposure, unless within 90 days of COVID-19 infection, must additionally test weekly for two weeks after the last exposure date.	Allowed to work with negative testing* Must be asymptomatic	Allowed to work with negative test completed on days 1*, 2, 3, and 5-7 post exposure, unless within 90 days of COVID-19 infection. If shortage of tests, prioritize to day 1 - 2 and 5-7. Note: HCP with <i>prolonged, continued exposure in the home</i> , are allowed to work with negative test completed on days 1* and 5-7 post exposure, unless within 90 days of COVID-19 infection., must additionally test weekly for two weeks after the last exposure date.	Allowed to work Must be asymptomatic	Allowed to work and test if possible. (Negative test completed on days 1* and 5-7 post exposure, unless within 90 days of COVID-19 infection. Note: HCP with <i>prolonged, continued exposure in the home</i> , are allowed to work with negative test completed on days 1* and 5-7 post exposure, unless within 90 days of COVID-19 for two weeks after the last exposure date.
	7 days off Must be asymptomatic	May return after 7 days with one negative test* Note: HCP with <i>prolonged, continued exposure in the home</i> , are allowed to work following testing cadence noted above under 10 days off.				

Evaluating & Monitoring of Residents

- All residents, including new admissions, should be evaluated at least daily. The evaluation includes:
 - *Screening for signs and symptoms of COVID-19*
 - *Actively monitoring temperature*
 - *Assessing respiratory status with pulse oximetry*
- If residents have a fever or symptoms consistent with COVID-19, increase the monitoring to every four hours. ***Include an assessment of symptoms, vital signs, oxygen saturation via pulse oximetry, and respiratory exam to identify and quickly manage serious infection.***

Q: Are HCP required to wear masks outdoors?

A: There isn't anything concrete in writing by the CDC, but their recommendation is ***it's best to err on the side of caution and wear source control during any interaction with residents, including an outdoor setting,*** especially, if the facility is located within a county with substantial or high transmission.

The CDC hopes to better address and clarify this question in the next iteration of the guidance.

NOTE: IDPH requires the use of masks by HCP even outdoors regardless of the community transmission level.

Enhanced Barrier Precautions

Healthcare-Associated Infections (HAIs)

Home Healthcare-associated Infections (HAI)

HAI Data +

Types of Infections +

Diseases and Organisms +

Preventing HAIs +


Containment Strategy -

What Can Be Done

Guidelines

Case Studies

Implementation of Personal Protective Equipment (PPE) Use in Nursing Homes to Prevent Spread of Multidrug-resistant Organisms (MDROs)

Print version: [Implementation of PPE in Nursing Homes to Prevent Spread of MDROs](#)  [PDF - 7 pages]

Summary of Recent Changes:

- Added additional rationale for the use of Enhanced Barrier Precautions (EBP) in nursing homes, including the high prevalence of multidrug-resistant organism (MDRO) colonization among residents in this setting.

On this Page

Background

Description of Precautions

Summary of PPE Use and Room Restriction

OF NOTE:

- EBP updated July 12, 2022
- EBP may be indicated (when Contact Precautions do not otherwise apply) for residents with any of the following:
 - Wounds or indwelling medical devices, regardless of MDRO colonization status
 - Infection or colonization with an MDRO
- Wound care: any skin opening requiring a dressing

Definitions used in EBP Implementation

High-contact resident care activities include: dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs or assisting with toileting, device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator, wound care: any skin opening requiring a dressing

Wounds requiring a dressing to include: pressure ulcers, diabetic foot ulcers, unhealed surgical wounds, and other wounds, such as chronic venous stasis ulcers.

Indwelling medical devices include, but are not limited to, central vascular lines (including hemodialysis catheters), indwelling urinary catheters, feeding tubes, and tracheostomy tubes.

*Devices that are fully embedded in the body, without components that communicate with the outside, such as pacemakers, would not be considered an indication for Enhanced Barrier Precautions.

Care and use of indwelling devices: (e.g., dressing changes)or use of the indwelling medical device e.g., (e.g., injecting or infusing medications or tube feeds)

Enhanced Barrier Precautions (EBP)

Guidance: <https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html>

FAQS: <https://www.cdc.gov/hai/containment/faqs.html>

Resources:

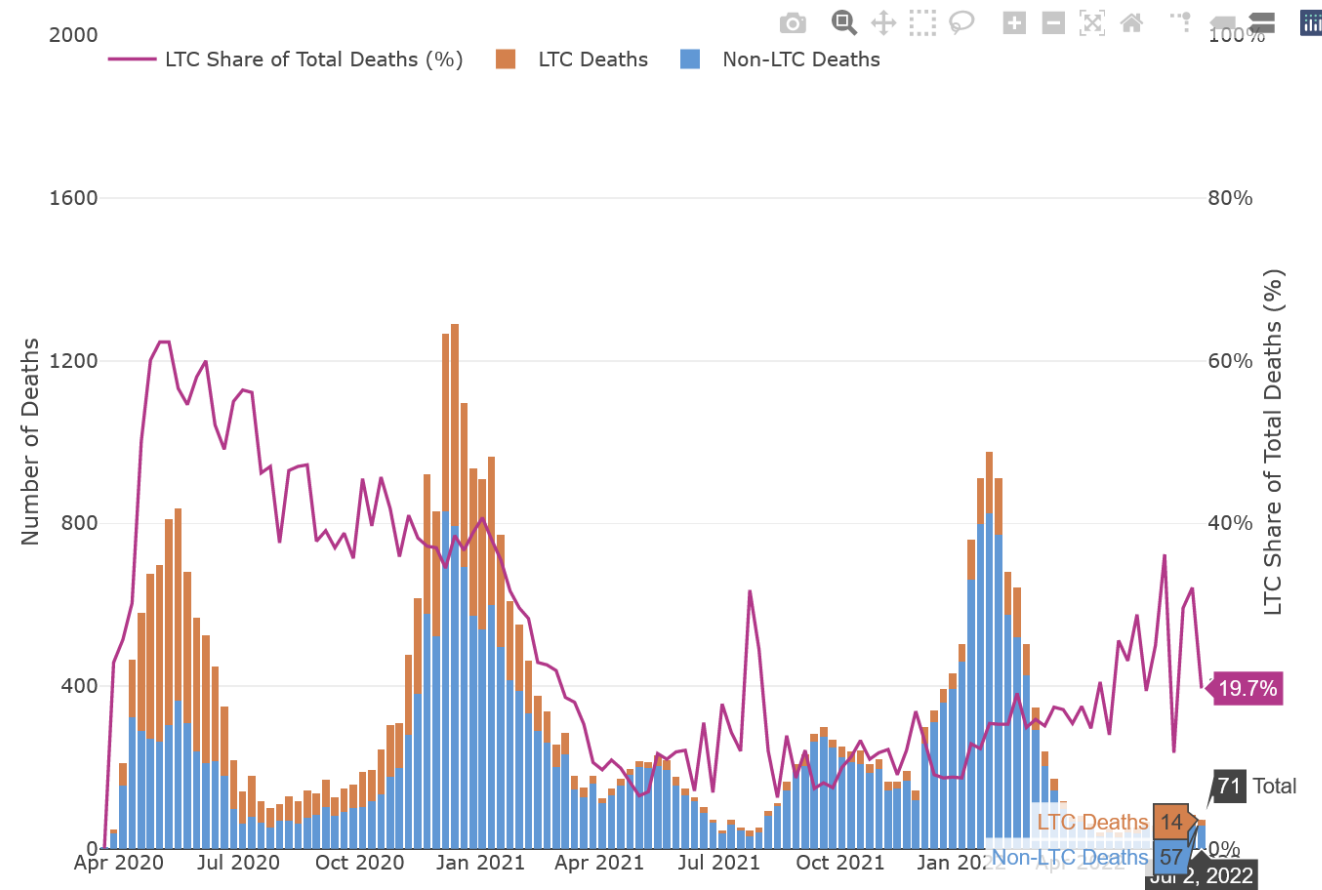
- PowerPoint slide deck
<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.cdc.gov%2Fhai%2Fpdfs%2Fcontainment%2FEBP-Presentation-July2022.pptx&wdOrigin=BROWSELINK>
- Letter to residents and families
<https://www.cdc.gov/hai/pdfs/containment/Letter-Nursing-Home-Residents-Families-Friends-508.pdf>

IDPH will be providing education on Enhanced Barrier Precautions
on one of the Friday LTC webinars

It is Not Over Yet, Still Supporting the Most Vulnerable



LTC Facility Share of Total COVID-19 Deaths



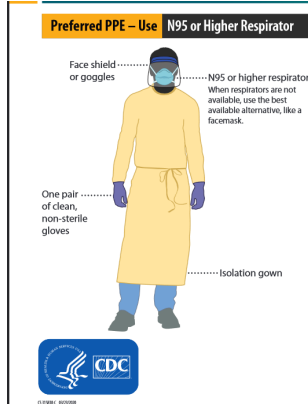
<https://dph.illinois.gov/covid19/data/long-term-care-data.html>

SARS-CoV-2 New Variants BA.5 and BA.2.75

- BA.4 BA.5 BA.4/5 have two and four mutations in their spike proteins
- July 7, 2022, the WHO classified BA.2.75 as a variant-of-concern lineage under monitoring
- BA.2.75 Now in the United States and has 9 variations in its spike protein
- We know what Core Components of infection prevention work, we just have to hang in there



General Vaccine Administration



cdc.gov/COVID19

Source Control / PPE



Detection, Isolation/Quarantine
Screening and Surveillance



Hand Hygiene

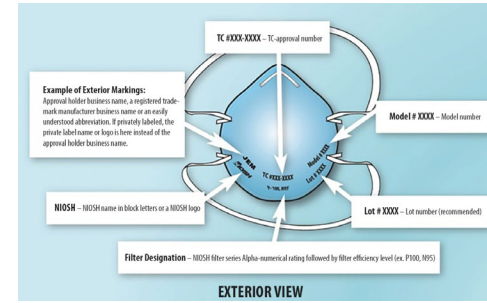


Surface Cleaning / Disinfecting

The National Personal Protective Technology Laboratory (NPPTL)
NIOSH-Approved Particulate Filtering Facepiece Respirators

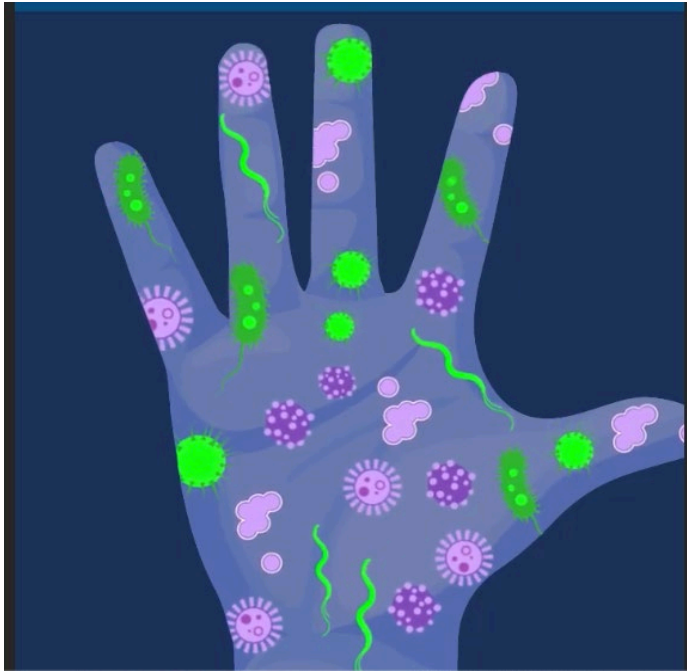
NIOSH-approved N95 Particulate Filtering Facepiece Respirators

Updated July 22, 2021



Respiratory Protection / Ventilation

Core Infection Prevention Practices



**Germs are Not for
Sharing**

TRANSMISSION-BASED PRECAUTIONS

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JULY 22, 2022

DISCLOSURE

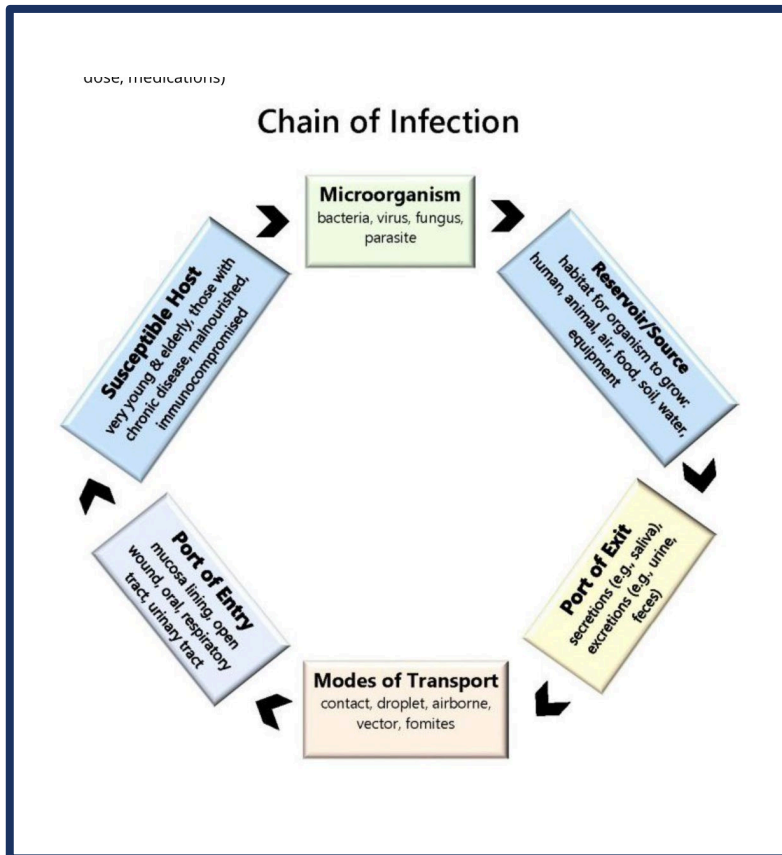
- I, Purisima Linchangco have NO financial disclosure or conflicts of interest with the presented material in this presentation.



OBJECTIVES

1. Review the elements of the Chain of Infection.
2. Define Standard Precautions and enumerate the infection control components of Standard Precautions.
3. Discuss Transmission-Based Precautions and the three main types – Contact, Droplet, and Airborne as well as Syndromic and Empiric Transmission-Based Precautions.

CHAIN OF INFECTION



Transmission of infectious agents within a healthcare setting requires three elements:

- I. Sources (reservoir) of infectious agents
- II. Susceptible host with portal of entry receptive to the agent
- III. Mode of transmission for the agent

CHAIN OF INFECTION

Sources

- Human reservoirs – patients, healthcare personnel and household members and other visitors.
- Inanimate environmental sources – contaminated environmental surfaces/equipment

Susceptible hosts

- Host factors – age, co-morbidities, nutrition, medications, surgical procedures and radiation therapy, and presence of indwelling devices (urinary catheters, endotracheal tubes, central venous and arterial catheters, and synthetic implants).

Modes of transmission

- Contact – Direct, Indirect
- Droplet
- Airborne

STANDARD PRECAUTIONS

Standard Precautions – include a group of infection prevention practices that apply to **all patient care activities**, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered.

Standard precautions are not only intended to protect the health care personnel but are also used to protect patients by ensuring that healthcare personnel do not carry infectious agents to patients on their hands or via equipment used during patient care.

These include:

hand hygiene, use of personal protective equipment (PPE), environmental cleaning and disinfection, resident placement, respiratory hygiene/cough etiquette, safe injection practices and proper handling of textiles and laundry.

STANDARD PRECAUTIONS

Components of Standard Precautions:

1. **Hand hygiene** – most healthcare-associated infections (HAIs) are transmitted by the hands of healthcare personnel (hcp), therefore hand hygiene either with alcohol-based hand rub (ABHR) or soap and water is the most important intervention to prevent HAI.
2. **Use of Personal Protective Equipment (PPE)** – Always use PPE when there is a possibility of being exposed to blood and body fluids and use PPE only one time.
3. **Environmental cleaning and disinfection** – use environmental protection agency (EPA) approved products and follow the contact time of the disinfectant product, and always clean and disinfect high touch surfaces often.
4. **Resident placement** – private rooms are the best way to prevent infection spread, if not available cohort residents colonized or infected with the same organism.
5. **Respiratory hygiene and cough etiquette** – staff should not come to work if with respiratory symptoms, always cover your cough, and educate residents to cover their cough.
6. **Safe injection practices** – always use safety engineered sharps devices, do not reuse single-use syringes and needles, only use sharps provided by the facility and as much as possible do not share blood glucose meters.
7. **Proper handling of laundry** – treat all soiled linens as potentially infectious.

TRANSMISSION-BASED PRECAUTIONS

Transmission-Based Precautions - are the 2nd tier of basic infection control and are to be used **in addition** to Standard Precautions for patients with documented or suspected infection or colonization with highly transmissible or epidemiologically-important pathogens for which **additional precautions** *are needed* to prevent transmission.

Extend duration of Transmission-Based Precautions, (e.g. Droplet, Contact) for *immunosuppressed patients* with viral infections due to prolonged shedding of viral agents that may be transmitted to others.

Three main types/categories:

1. Contact,
2. Droplet
3. Airborne

There are infectious diseases with **multiple routes of transmission** therefore, **more than one Transmission-Based Precautions category may be used** e.g. Contact + Droplet+ Standard, Contact + Droplet with N-95 or higher respirators

CONTACT PRECAUTIONS



I. Contact Precautions

Intended to prevent transmission of infectious agents, including epidemiologically important microorganisms, which are spread by:

- **Direct contact** (direct body contact with the tissues or fluids of an infected individuals such through open mucous membranes, open wounds, or abraded skin)
- **Indirect contact** (no direct person to person contact – contact occurs from a reservoir to a host by contaminated surfaces or objects).

Contact Precautions are used for:

1. Patient *infected or colonized with multiple drug resistant organisms (MDROs)* e.g. *methicillin resistant staphylococcus aureus (MRSA)* , *Vancomycin Resistant Enterococci (VRE)*, *Vancomycin Intermediate Staphylococcus Aureus (VISA)/ Vancomycin Resistant Staphylococcus Aureus (VRSA)* , *Extended Spectrum Beta-Lactamase (ESBLs)*

CONTACT PRECAUTIONS

- In LTCF, used for ill patients with MDRO (e.g. those **totally dependent upon hcp for healthcare and activities of daily living, or ventilator-dependent**) and for residents whose **infections or drainage cannot be contained** , use Contact Precautions in addition to Standard Precautions.
 - NOT all patients in long term care facilities (LTCF) with multiple drug resistant organisms (MDROs) are placed on Transmission Based Precautions (TBP), those who are **relatively healthy (e.g. mainly independent)** just **follow Standard Precautions**, make sure to use gloves and gowns for contact with uncontrolled secretions, or pressure ulcer.
 - For patients on Contact Precautions such as MDRO colonized or infected patients but **without draining wounds, diarrhea, or uncontrolled secretions**, establish ranges of permitted ambulation, socialization and use of common areas based on their risk to other patients and on their ability to observe proper hand hygiene and other recommended precautions to contain secretions.
2. applied for any patients where the **presence of excessive wound drainage, fecal incontinence, or other discharges from the body** suggest an increased potential for extensive environmental contamination and risk of transmission such as *Clostridioides difficile*, Norovirus, Rotavirus or draining abscesses.

CONTACT PRECAUTIONS



The infographic is a yellow rectangular poster with a dark blue border. At the top, it features two red octagonal stop signs with the word "STOP" in white. Between the signs, the text "CONTACT PRECAUTIONS" is written in large, bold, black letters, and "EVERYONE MUST:" is written in bold, red letters below it. The poster is divided into two main sections. The first section, "EVERYONE MUST:", includes an icon of hands being washed with soap and water, followed by the text "Clean their hands, including before entering and when leaving the room." The second section, "PROVIDERS AND STAFF MUST ALSO:", includes four icons: a pair of blue gloves, a blue gown, a blue stethoscope, and a blue stethoscope. Each icon is followed by specific instructions in black text, with some instructions in red text for emphasis. The instructions are: "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.", and "Use dedicated or disposable equipment. Clean and disinfect reusable equipment before use on another person." The name "K. S. S." is printed vertically in small letters on the left side of the poster.

STOP **CONTACT PRECAUTIONS** **STOP**
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.

Personal protective equipment (PPE) – Wear **gown and gloves** for all interactions that may involve contact with the patient or the patient’s environment. Donning PPE upon room entry and properly discarding before exiting the patient room is done to contain pathogens.

Patient placement – single-patient room is preferred. When a single-patient room is not available, IP (infection preventionist) consultation is recommended to assess the various risks associated with other patient placement options (e.g. cohorting of patients with the same MDRO in the same room, if cohorting is not possible place MDRO patients in rooms with patients who are low risk for acquisition of MDROs and associated adverse outcomes from infection and likely to have short lengths of stay). In multi-patient rooms, >3 feet spatial separation between beds is advised.

Limit transport and movement of patients – outside of the room to medically necessary purposes. When transport or movement is necessary, **cover or contain the infected or colonized areas of the patient’s body.** Remove and dispose of contaminated PPE and perform hand hygiene prior to transporting patients on Contact Precautions. Don clean PPE to handle the patient at the transport location.

CONTACT PRECAUTIONS

Use disposable or dedicated care equipment (e.g. blood pressure cuffs, stethoscope). If common use of equipment for multiple patients is unavoidable, clean and disinfect such equipment before use on another patient.

Cleaning and disinfection of rooms – ensure rooms are frequently cleaned and disinfected (e.g. at least daily) focusing on frequently-touched surfaces and equipment in the immediate vicinity of the patient

Plan for discontinuation or de-escalation – contact precautions requires room restriction, are generally intended to be time limited and, when implemented, should include a plan for discontinuation.

DROPLET PRECAUTIONS

II. Droplet Precautions

used for patients **known or suspected** to be infected with pathogens transmitted **by respiratory droplets** that are generated by a patient who is **coughing, sneezing, or talking**.

- *respiratory droplets (>5 μm)* that carry infectious pathogens
- transmit infection when they travel directly from the respiratory tract of the infectious individual to susceptible *mucosal surfaces of the recipient (nasal mucosa, conjunctivae, and mouth)*,
- generally travel **over short distances (within 6 ft or 2 meters)**, necessitating facial protection.

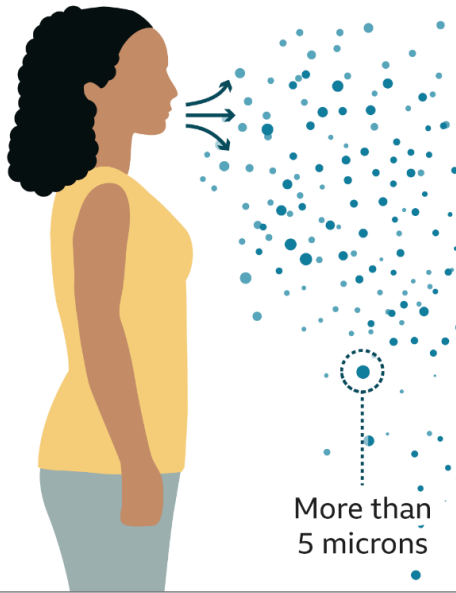
Examples of infectious agents that are transmitted via droplet route include:

Bordetella pertussis, Influenza virus, Adenovirus, Rhinovirus, *Mycoplasma pneumoniae*, group A *Streptococcus*, and *Neisseria meningitidis*.

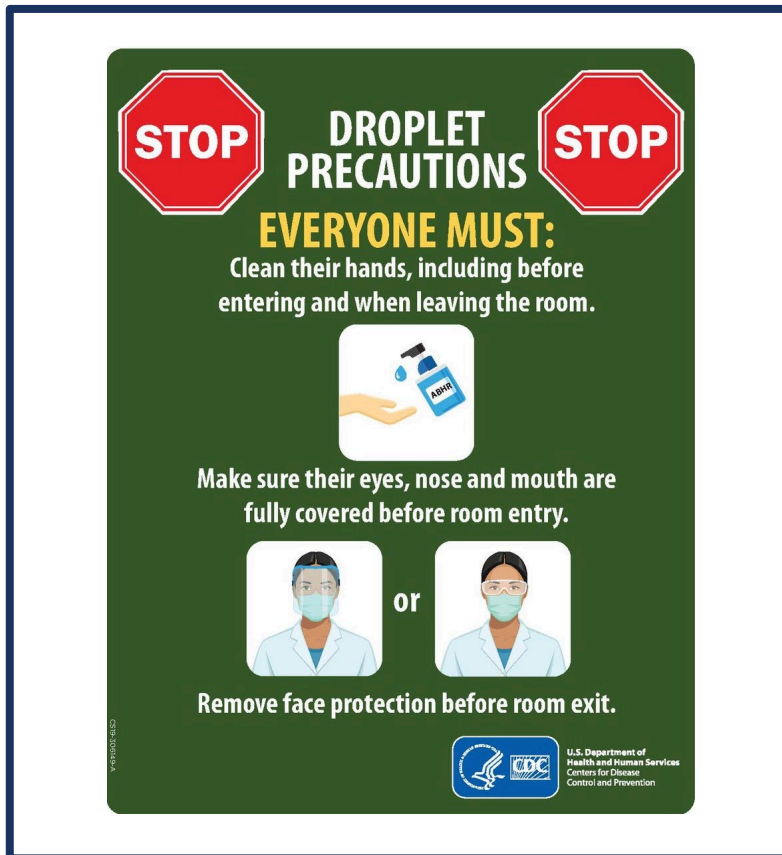
Droplet Precautions can be used together with Contact Precautions with some infectious diseases e.g. Adenovirus pneumonia, Group A Strep on wound or burn and Ebola.

Droplet transmission

Coughs and sneezes can spread droplets of saliva and mucus



DROPLET PRECAUTIONS



Personal Protective Equipment (PPE) – Don surgical mask (a respirator not necessary) upon entry into the patient room or patient space. with some infectious agents (original recommendation).

COVID-19 pandemic – CDC recommended the use of **eye protection in addition to the use of surgical mask.**

Patient placement – a **single-patient room is preferred.** When a single-patient room is not available, IP consultation is recommended to assess the various risks associated with other patient placement options (e.g. cohorting, keeping the patient in an existing room mate). Spatial separation >3 ft and drawing the curtain between pt beds for patients in multi-bed rooms.

Limit transport and movement of patients – outside of the room to medically-necessary purposes. If transport or movement outside of the room is necessary, instruct patient to wear a **surgical mask** and follow Respiratory Hygiene/Cough Etiquette.

AIRBORNE PRECAUTIONS

III. Airborne Precautions

used for patients **known or suspected** to be infected with pathogens transmitted by the **airborne route**. These infectious agents remain **infectious over long distances** when suspended in the air.

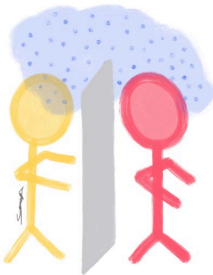
Airborne transmission

- Occurs by dissemination of either by **airborne droplet nuclei or small particles** in the respirable size range (**$< 5 \mu\text{m}$**) containing infectious agents that remain infective over time and distance.
- Microorganisms carried in this manner may be dispersed over long distances by air currents and maybe inhaled by susceptible individuals **who have not had face to face contact with (or been in the same room) with the infectious individual.**
- Droplet nuclei, particles arising from **desiccation of suspended droplets**, have been associated with airborne transmission and defined as **$\leq 5 \mu\text{m}$ in size** (e.g. pulmonary TB or SARS-CoV2) during **high flow oxygen use or aerosol generating procedures.** .

Examples of infectious agents that are transmitted via airborne route

Mycobacterium tuberculosis, Rubeola virus (measles), and Varicella (chickenpox).

Airborne



Airborne transmission

Tiny particles, possibly produced by talking, are suspended in the air for longer and travel further



AIRBORNE PRECAUTIONS



STOP AIRBORNE PRECAUTIONS STOP

EVERYONE MUST:

-  Clean their hands, including before entering and when leaving the room.
-  Put on a fit-tested N-95 or higher level respirator before room entry.
-  Remove respirator after exiting the room and closing the door.
-  Door to room must remain closed.

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Personal Protective Equipment (PPE) – fit-tested NIOSH-approved N95 or higher level respirator for health care personnel prior to room entry. A *respiratory protection program* that includes education, fit-testing, and user seal checks is required.

Patient Placement – require an **airborne infection isolation room (AIIR)**. In settings where AIIR room is not available, masking the patient and placing the patient in a private room with the door closed will reduce the likelihood of airborne transmission.

Restrict susceptible hcp from entering the room (specific for measles or varicella) – if other immune healthcare personnel are available.

Limit transport and movement of patients outside of the room to medically necessary purposes. If transport or movement outside is necessary, instruct patients to wear a **surgical mask**, and observe Respiratory Hygiene/Cough Etiquette.

Immunize susceptible persons as soon as possible following unprotected contact (measles and varicella)

PATIENT TRANSPORT FOR ALL TRANSMISSION BASED PRECAUTIONS TYPES

- Limit transport and movement of patients outside of their room
- Any patients with infected areas (wound, rash, etc) must be contained/covered
- PPE is NOT worn by the transporter during patient transport
- When patients must leave their room and travel to another department or location, there must be a good hand off communication among staff about the type of isolation. This may include verbal, written and/or electronic notifications.

DISEASES USING MORE THAN ONE TRANSMISSION-BASED PRECAUTIONS

Some diseases have *multiple routes of transmission* therefore, *more than one Transmission-Based Precautions category* may be used. When used singly or in combination, TBPs are always used **in addition** to Standard Precautions.

Examples:

- Varicella and Disseminated Herpes-zoster - Airborne + Contact + Standard
- SARS-CoVI – Airborne + Contact + Droplet + Standard
- SARS-CoV2 - Droplet + Contact + Airborne (aerosol generating procedure) + Standard
- Monkeypox – Contact + Droplet + Airborne + Standard

When to discontinue TBP – consider the type of organism and other factors such as whether the resident still has signs and symptoms of infection, if antibiotic therapy has been completed by the resident, and if wound is completely healed before shifting to standard precautions.

For a complete list of the type of Precaution to use for the Different Diseases and the duration of precaution, please check this CDC weblink <https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html>

SYNDROMIC AND EMPIRIC TRANSMISSION-BASED PRECAUTIONS

Clinical Syndromes or Conditions Warranting Empiric Transmission-Based Precautions in Addition to Standard Precautions

Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

Appendix A: Table 2

Format Change [February 2017]

⚠ The format of this section was changed to improve readability and accessibility. The content is unchanged.

Disease	Clinical Syndrome or Condition†	Potential Pathogens‡	Empiric Precautions (Always Includes Standard Precautions)
Diarrhea	Acute diarrhea with a likely infectious cause in an incontinent or diapered patient	Enteric pathogens§	Contact Precautions (pediatrics and adult)
Meningitis	Meningitis	<i>Neisseria meningitidis</i>	Droplet Precautions for first 24 hours of antimicrobial therapy, mask and face protection for intubation
Meningitis	Meningitis	Enteroviruses	Contact Precautions for infants and children
Meningitis	Meningitis	<i>M. tuberculosis</i>	Airborne Precautions if pulmonary infiltrate Airborne Precautions plus Contact Precautions if potentially infectious draining body fluid present
Rash or Exanthems, Generalized, Etiology Unknown	Petechial/ecchymotic with fever (general)	<i>Neisseria meningitidis</i>	Droplet Precautions for first 24 hours of antimicrobial therapy
Rash or Exanthems, Generalized	Petechial/ecchymotic with fever (general) • If positive history of travel to endemic area	Ebola, Lassa, Marburg viruses	Droplet Precautions plus Contact Precautions, with face/eye protection, emphasis on eye

Syndromic and Empiric TBP - are applied at the time of initial contact **while test results are pending** based on the clinical presentation and most likely pathogen.

- used at the time a patient develops symptoms or signs of transmissible infection or arrives at a healthcare facility for care.

CDC's list of certain clinical syndromes and conditions carry a sufficiently high risk to warrant their use of empirically while confirmatory tests are pending.

<https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/transmission-precautions.html>

Examples:

Diarrhea – acute, prob infectious etiology and pt is incontinent and/or diapered, place resident on Contact and Standard precautions while waiting for the test results.

Vesicular rash – prob varicella, disseminated herpes zoster (shingles), place patient on Contact, Airborne, and Standard precautions while waiting for the test results. If resident has localized shingles affecting only 1 or 2 adjacent dermatomes – only need Contact Precautions.

REFERENCES:

- Chain of Infection Components – <https://www.cdc.gov/niosh/z-draft-under-review-do-not-cite/safetyculturehc/module-2/3.html>
- COVID-19 Pandemic: A World in Turmoil 2. Understanding the Chain of Infection - <https://www.atrainceu.com/content/2-understanding-chain-infection>
- Standard Precautions for All Patient Care - <https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>
- A Unit Guide to Infection Prevention for Long-Term Care Staff - <https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/resources/guides/infection-prevent.html>
- Guidelines for Isolation Precautions: Preventing Transmission of Infectious agents in Healthcare Setting (2007) - <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>
- Transmission-Based Precautions - <https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>
- A Pandemic Paradigm Shift in Our Understanding of Transmission. <https://www.infectioncontrolday.com/view/a-pandemic-paradigm-shift-our-understanding-transmission>
- Preventing the Spread of Novel or Targeted Multidrug-resistant Organisms (MDROs) in Nursing Homes through Enhanced Barrier Precautions webinar. https://emergency.cdc.gov/coca/calls/2019/callinfo_102419.asp

Open Q&A

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Please do not resubmit a single question multiple times

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Reminders

- For continuing education credit, please fill out the following evaluation by July 15th, 2022:
 - <https://redcap.dph.illinois.gov/surveys/?s=MHXT4WFJAXTD4NE9>
- SIREN Registration
 - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: <http://www.dph.illinois.gov/siren>
- NHSN Assistance:
 - Contact Telligen: **nursinghome@telligen.com**