

An Overview of Infection Prevention and Control for Group Home Settings

May 2023

Division of Healthcare Associated Infection Prevention
Non-traditional Infection Control Consulting (NICC) Team

Jody Jones MPH, RN, CIC
Deana Ferber BSN, RN, CIC

BUREAU OF EPIDEMIOLOGY



pennsylvania
DEPARTMENT OF HEALTH

Non-traditional Infection Control Consulting (NICC) Team

Certified infection preventionists committed to providing infection prevention and control education, consultation, and resources to the Commonwealth of Pennsylvania's non-traditional healthcare communities.

[NICC Team Flyer](#)

[NICC Team Info Sheet](#)

Who is this Training For?

- ❖ Direct support professionals (DSPs) and caregivers, including family members
- ❖ Occupational, physical or speech therapists
- ❖ Housekeepers
- ❖ Dietary aides and kitchen staff
- ❖ Volunteers



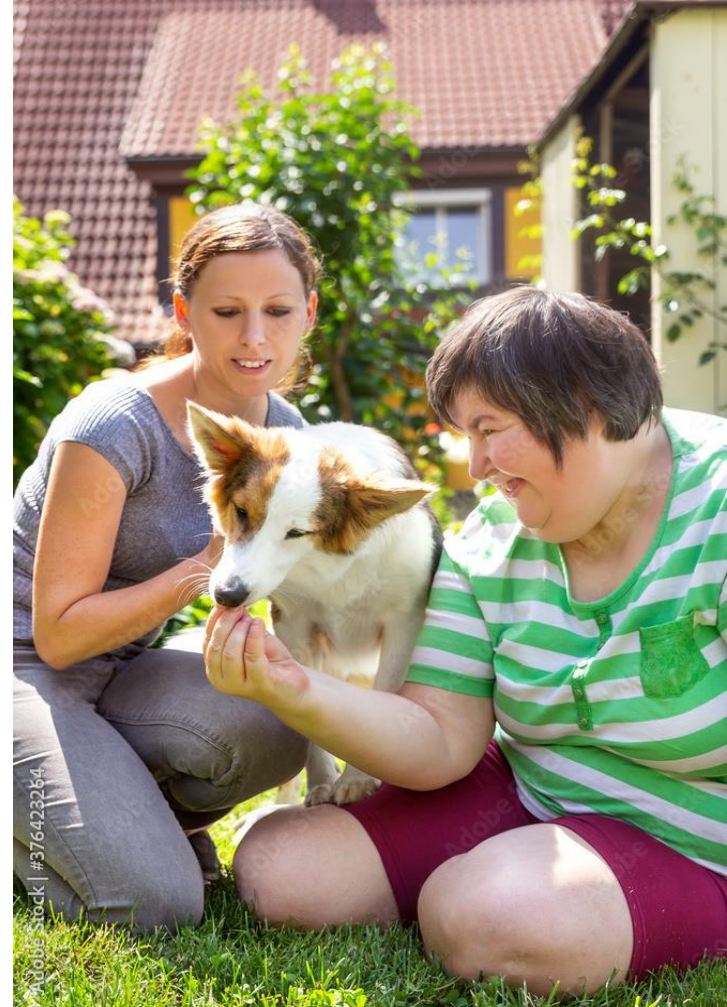
Learning Objectives

1. Review the chain of infection and be able to identify the six components of infection transmission.
2. Understand the most critical practices of infection prevention and control and name one important step to prevent infection in the group home setting.
3. Explain the basic definition of a multidrug-resistant organism, the difference between infection and colonization, and name two infection prevention practices to stop transmission.

Policies and Procedures

- ✓ Many group homes may have additional IPC requirements
- ✓ Read and acknowledge facility policies and procedures

IPC: Infection Prevention and Control



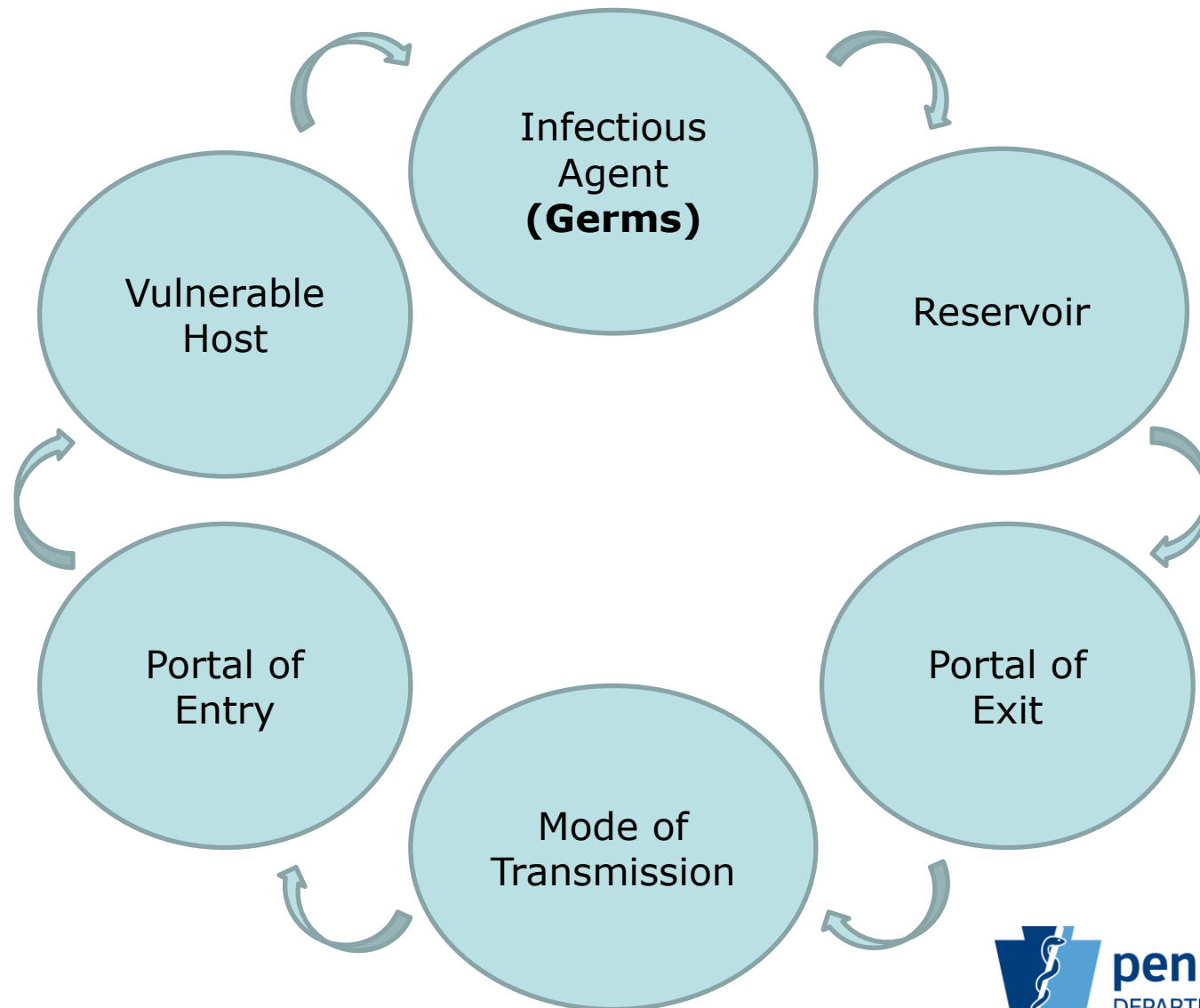
What Will this Course Do for You?

- ✓ Show you how to provide a safe environment for residents, yourself, loved ones, coworkers, and community
- ✓ Expand your evidence-based knowledge on infection prevention and control practices
- ✓ Fulfill annual infection prevention and control training



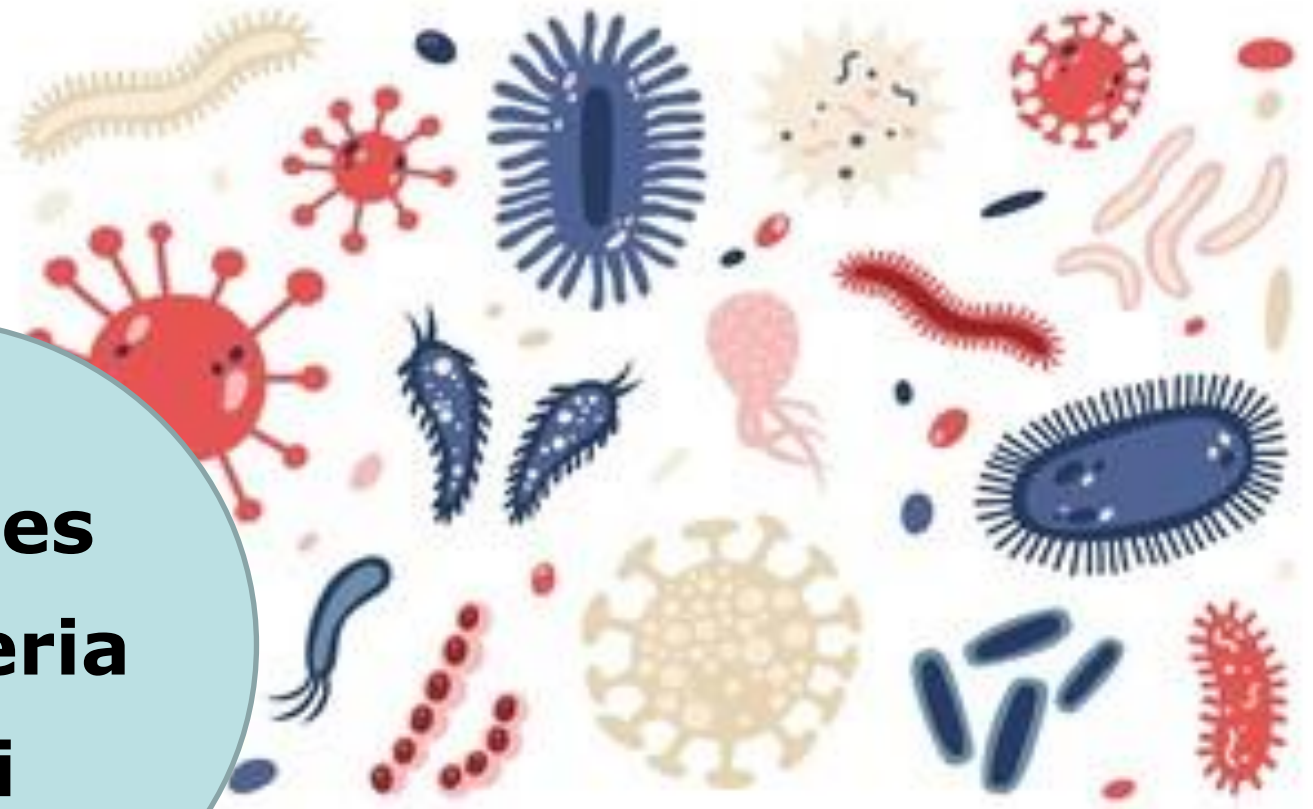
The Chain of Infection

The Chain of Infection



Germs that Cause Infection

Viruses
Bacteria
Fungi



Where Germs Live (Reservoirs)

- On and in the human body
 - Skin
 - Respiratory system
 - Gastrointestinal system
- Environment
 - Surfaces
 - Animals
 - Food



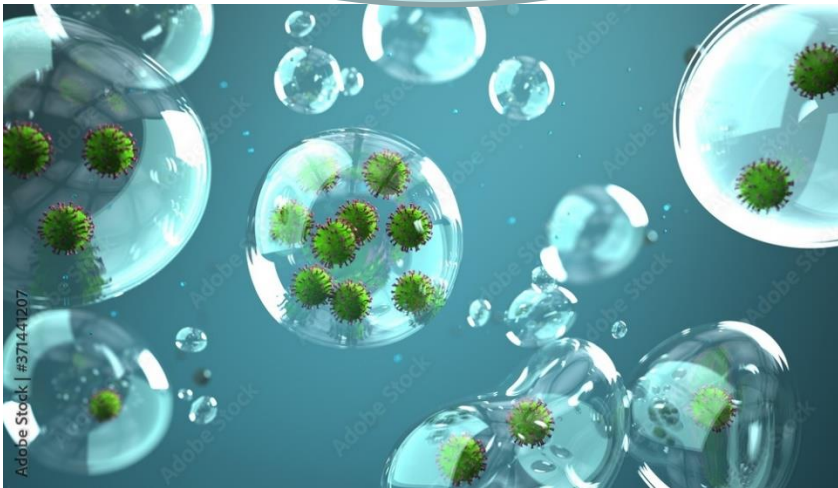
▶ Portals of Exit



- Respiratory system
 - Breathing
 - Sneezing
 - Coughing
 - Runny nose
- GI tract
 - Feces
 - Vomit

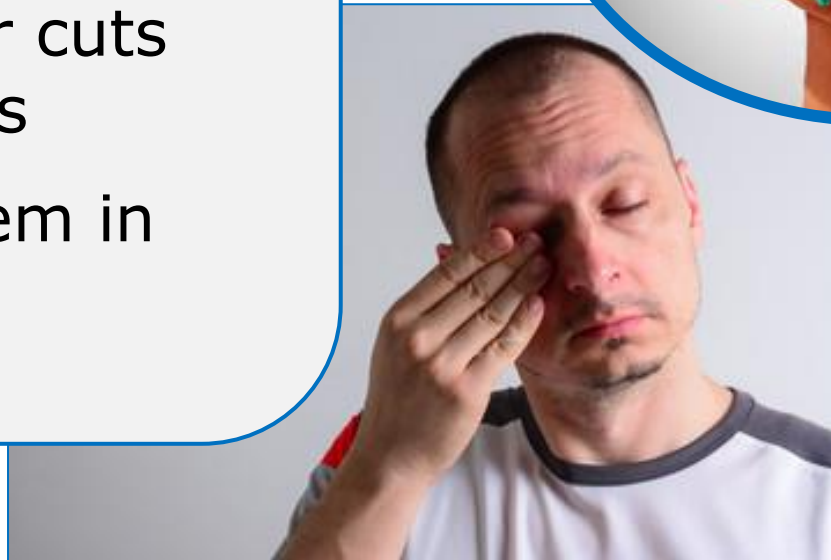
Modes of Transmission

- **Touch**
 - Environment/surfaces
 - Person to person
- **Droplets**
- **Air**



Portals of Entry

- ❖ Touch, splashes, sprays
 - Eyes, nose or mouth
 - Wounds or cuts
- ❖ Lines or tubes
- ❖ Breathing them in
- ❖ Eating



Vulnerable Hosts

- Anyone can get sick
- Most likely to infect and cause illness:
 - ▾ Elderly
 - ▾ Immunocompromised



Immunocompromised

- Cancer or cancer treatments
- Lung disease
- Diabetes
- Heart Disease
- Some medications
- Recent surgeries

The Basics of Infection Prevention and Control

➤ Infection Prevention Basics



- Hand hygiene
- Vaccinations
- PPE
- Cleaning and disinfection



Knowledge Check

What is the number one way to prevent infections from spreading?



- A. Avoiding large crowds
- B. Regular exercise
- C. Masking
- D. Hand hygiene
- E. Getting your vitamin D

Hand Hygiene

Hand Hygiene

Hand hygiene is the number one way to prevent the spread of infection!

- ❖ Can reduce respiratory illnesses like colds by 21%
- ❖ Can reduce diarrheal illness in people with weakened immune systems by 58%

▶ Hand Hygiene

- Methods:
 - ❖ Alcohol-based hand rub (ABHR)
 - ❖ Soap and water
- When?
- How?
- Extra tips!



➤ Alcohol-Based Hand Rub (ABHR)

- ❖ Preferred method for routine hand hygiene
- ❖ More widely accessible, able to transport
- ❖ Less skin drying
- ❖ Less skin breakdown



More information:
[Alcohol-Based Hand Rub Memo](#)

▶ Soap and Water

- ❖ Visibly dirty hands
- ❖ Before eating
- ❖ After using the bathroom
- ❖ After caring for a person with known or suspected diarrhea



▶ Hand Hygiene: How



Soap & Water

- Wet hands with clean, running water
- Use soap and lather all surfaces with for 20 seconds
- Rinse hands with clean, running water
- Dry hands completely

ABHR

- Dispense enough to cover every surface
- Rub all surfaces until dry

Hand Hygiene Don'ts

- Don't use only water
- Don't use dirty or standing water
- Don't lather for <20 secs
- Don't leave hands wet (water or ABHR)
- Don't wipe hands on pants or dirty surfaces

▶ Hand Hygiene: When

Critical Moments for Hand hygiene

- Before and after eating or preparing food
- After using the bathroom
- After coughing, sneezing, blowing or wiping nose
- Before and after touching patient or patient surroundings
- Before and after donning/doffing gloves



[Moments for Hand Hygiene](#)
[Poster-Healthcare](#)

▶ Hand Hygiene: Extra Tips



- ❖ Glove use
- ❖ Carrying ABHR/
designated pocket
- ❖ No Jewelry
- ❖ No Artificial nails

Vaccines

▶ Getting Vaccinated

Vaccines: over 100 years of reducing illness and preventing death

Benefits of vaccination and staying up to date on boosters

- Protect yourself
- Protect your patients and coworkers
- Protect your loved ones
- Protect your community
- Save healthcare costs in the future
- Be prepared for school, work or travel



▶ Influenza Vaccine

Influenza (flu) is a respiratory virus that infects millions of people every year.

Getting your annual flu shot:

- Reduces chances of hospitalization or death
- Protects from flu-related complications, such as:
 - Pneumonia,
 - Heart attack or
 - Stroke



COVID-19 Vaccine

- Safer alternative to infection and effective in reducing the risk of:
 - Severe complications
 - Hospitalization
 - Death
- Safe for use:
Reviewed by the FDA, CDC and other experts



[CDC Video COVID Vaccine: How Do We Know They're Safe?](#)

Personal Protective Equipment (PPE)

PPE: What is it and Why Do We Use it?

Personal Protective Equipment (PPE)- clothing or equipment that protects people from hazards, such as germs is a protective layer that keeps

- A physical barrier for germs
- Protects the wearer, AND
- Protects those around the wearer

Types of PPE

- ❖ Gloves
- ❖ Gowns
- ❖ Surgical masks
- ❖ N95s
- ❖ Eye protection

Types of Transmission-Based Precautions

- ❖ Contact
- ❖ Droplet
- ❖ Airborne

Gloves

- Reduce the likelihood of transferring germs through touch
 - From surfaces
 - Bodily fluids



Reminder:

Make sure to perform hand hygiene before and after glove use!

Gowns

- Keep infectious material from transferring to and from clothing or items on the body
- Think ahead!
- Don completely



Surgical Masks

- Used to reduce the likelihood of large droplets from exiting or entering the respiratory system
- Well-fitting
- Think ahead!

Reminder: Make sure mask covers nose and mouth. Do not hang below nose.



N95 Respirators

A respirator is designed to achieve a very close facial fit to protect you from inhaling airborne particles.

- Worn when higher level of protection is needed
- Proper wearing requires getting fit tested for proper seal
- Must be tightly fitted and sealed around the nose and mouth
- Effective only if:
 - ✓ Correct respirator used
 - ✓ Available when needed
 - ✓ Put on and taken off correctly
 - ✓ Stored properly
 - ✓ Not soiled, wet, or torn



Eye Protection

Used to protect your eyes and nose from potential splashes and sprays of blood and body fluids, and respiratory droplets



Goggles

- Fits snugly and fully cover eyes
- Reliable protection from splashes, sprays, and respiratory droplets
- Can be used over regular eyeglasses

Face Shields

- Covers forehead, extends below chin, wraps around the side of the face to protect eyes, nose, mouth and skin
- Can be combined with other PPE

Safety Glasses

- Do **NOT** fit snugly or fully cover eyes or face
- Do **NOT** provide high level of protection from splashes, sprays, and respiratory droplets

Full PPE Donning and Doffing

- Type of PPE required will vary
- Donning (Putting on PPE)
- Doffing (Taking off PPE)
- PPE must be changed prior to caring for another person
- How to safely don and doff PPE:
 - ▣ [PPE-Sequence.pdf \(cdc.gov\)](#)

Location and Storage of PPE

- Convenient and accessible
- PPE storage should be well-organized
- Stacking is highly inadvisable
- Use of PPE storage utilities like PPE organizers is advisable
- Keep storage area clean and dry
- Keep PPE away from direct sunlight
- Train users on proper storage
- Consult manufacturer's instructions



Transmission-Based Precautions

Types of Precautions

- Standard
- Transmission-based
 - ▣ Contact
 - ▣ Droplet
 - ▣ Airborne

Standard Precautions

STANDARD PRECAUTIONS

Use Personal
Protective Equipment (PPE)



MASKS



GLOVES



FACE
SHIELD



GOWNS



GLASSES

Used at all times when caring for residents to protect the spread of germs/infection from person to person when there is **anticipated exposure** to blood, body fluids, secretions, or excretions

Contact Precautions

- Recommended if the resident is experiencing
 - Acute diarrhea
 - Draining wounds
 - Secretions or excretions that are unable to be covered or contained
- PPE
 - Gloves
 - Gown
- Visitors
 - Should report to the caregiver before entering the room
 - Be instructed to wash hands whenever they leave the room



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.

©2019-2020/04/14

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

➤ Contact Precautions for *C.diff*

Click on the following link to review some of the additional precautions that are needed when a person is placed on Contact Enteric

[Preventing the spread of *C. diff* at home \(cdc.gov\)](#)

Key take aways when caring for someone with *C.diff*:

- Hand hygiene must include soap and water (preferred over use of ABHR)
- Do not share bathrooms or equipment
- Bleach products
 - Must be mixed according to instructions on the bottle for use
 - Special attention to high-touch surfaces and shared items

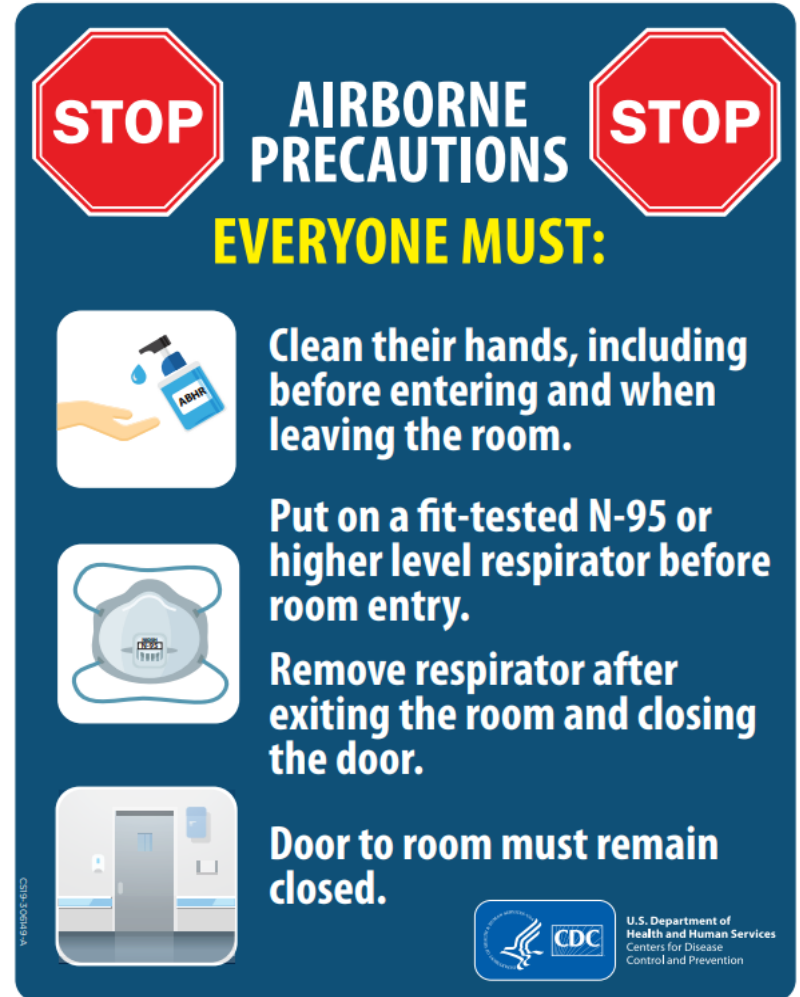
Droplet Precautions

- Recommended if the resident is diagnosed with:
 - Influenza (Flu)
 - Bacterial meningitis
 - Pneumonia (bacterial and viral)
- PPE
 - Mask
 - Eye protection (if splash or spray is anticipated)
- Visitors
 - Should report to the caregiver before entering the room
 - If instructed to wear PPE based on the nature of their visit, they must remove it and wash hands when they leave the room






Airborne Precautions

- Recommended if the resident is diagnosed with:
 - Measles
 - Tuberculosis
 - Chickenpox
- PPE
 - N-95
 - Other PPE as needed depending care that will be provided and anticipated exposure
 - Visitors- limit/restrict



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.

©2014, CDC/PHSA

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

Cleaning and Disinfecting

Cleaning & Disinfecting



Cleaning
removes dirt,
dust, crumbs
and germs



Disinfecting
kills germs on
surfaces and
objects

Disinfectant Label

How to Read a Disinfectant Label

Read the entire label.

The label is the law!

Note: Below is an **example** of information that can be found on a disinfectant label

Active Ingredients:
What are the main disinfecting chemicals?

EPA Registration Number:
U.S. laws require that all disinfectants be registered with EPA.

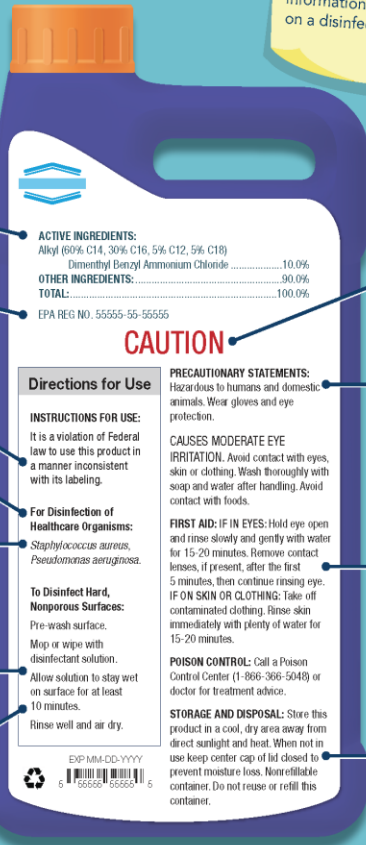
Directions for Use (Instructions for Use):
Where should the disinfectant be used?

What germs does the disinfectant kill?

What types of surfaces can the disinfectant be used on?

How do I properly use the disinfectant?

Contact Time:
How long does the surface have to stay wet with the disinfectant to kill germs?



Signal Words (Caution, Warning, Danger):
How risky is this disinfectant if it is swallowed, inhaled, or absorbed through the skin?

Precautionary Statements:
How do I use this disinfectant safely? Do I need PPE?

First Aid:
What should I do if I get the disinfectant in my eyes or mouth, on my skin, or if I breathe it in?

Storage & Disposal:
How should the disinfectant be stored? How should I dispose of expired disinfectant? What should I do with the container?

Always read the label of disinfecting products to make certain that:

- The product is EPA-registered
- It can be used on the type of surface you are disinfecting
- Follow manufacturer's instructions for use
- You are adhering to the necessary contact time
- You are storing and disposing of the product correctly and safely



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



WWW.CDC.GOV/PROJECTFIRSTLINE



pennsylvania
DEPARTMENT OF HEALTH

Contact Time

How to Read a Disinfectant Label

Read the entire label.

The label is the law!

Note: Below is an **example** of information that can be found on a disinfectant label

Active Ingredients:
What are the main disinfecting chemicals?

ACTIVE INGREDIENTS:
Alkyl (60% C14, 30% C16, 5% C12, 5% C18)
Dimethyl Benzyl Ammonium Chloride10.0%
OTHER INGREDIENTS:90.0%
TOTAL:100.0%

EPA Registration Number:
U.S. laws require that all disinfectants be registered with EPA.

EPA REG NO. 55555-55-55555

Directions for Use (Instructions for Use):
Where should the disinfectant be used?

Directions for Use

INSTRUCTIONS FOR USE:
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

What germs does the disinfectant kill?

For Disinfection of Healthcare Organisms:
Staphylococcus aureus,
Pseudomonas aeruginosa.

What types of surfaces can the disinfectant be used on?

To Disinfect Hard, Nonporous Surfaces:
Pre-wash surface.
Mop or wipe with disinfectant solution.

How do I properly use the disinfectant?

Allow solution to stay wet on surface for at least 10 minutes.
Rinse well and air dry.

Contact Time:
How long does the surface have to stay wet with the disinfectant to kill germs?

EXP:MM-DD-YYYY
55555-55555

Signal Words (Caution, Warning, Danger):
How risky is this disinfectant if it is swallowed, inhaled, or absorbed through the skin?

CAUTION

Precautionary Statements:
How do I use this disinfectant safely? Do I need PPE?

PRECAUTIONARY STATEMENTS:
Hazardous to humans and domestic animals. Wear gloves and eye protection.

CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Avoid contact with foods.

First Aid:
What should I do if I get the disinfectant in my eyes or mouth, on my skin, or if I breathe it in?

FIRST AID: IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Storage & Disposal:
How should the disinfectant be stored? How should I dispose of expired disinfectant? What should I do with the container?

POISON CONTROL: Call a Poison Control Center (1-800-368-5048) or doctor for treatment advice.

STORAGE AND DISPOSAL: Store this product in a cool, dry area away from direct sunlight and heat. When not in use keep center cap of lid closed to prevent moisture loss. Non-refillable container. Do not reuse or refill this container.

Time a disinfectant is in direct contact with the surface or item to be disinfected. For surface disinfection, this period is framed by the application to the surface until complete drying has occurred.



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



WWW.CDC.GOV/PROJECTFIRSTLINE



pennsylvania
DEPARTMENT OF HEALTH

What are high-touch surfaces?

What do they have in common?



▶ What are low-touch surfaces?

- Surfaces that we do not touch a lot
 - ▀ Walls, ceiling fixtures, mirror, windowsills, artwork on the wall, surfaces not readily accessible
- Minimal contact with these surfaces

Shared Equipment



Blood Glucose Monitoring

- When assisting residents with blood glucose monitoring:
 - **Never** use fingerstick/lancing devices on more than one person
 - Whenever possible, blood glucose meters should **not** be shared. If shared, they must be properly cleaned and disinfected after every use.
 - Insulin pens and other medication cartridges and syringes are for single-patient-use only and should never be used for more than one person
 - Change gloves between residents
 - Hand hygiene



Blood Glucose Monitoring

Adhering to the best practices discussed in the previous slide can prevent the spread of bloodborne pathogens which are infections spread when you come in contact with infected blood

For more information on best practices for assisted blood glucose monitoring and insulin administration, please click on the following links below:

- [PA-HAN-638: Failure to Disinfect Assisted Blood Glucose Monitors between Uses Poses Risk for Bloodborne Pathogen Transmission](#)
- [Infection Prevention during Blood Glucose Monitoring and Insulin Administration | Injection Safety | CDC](#)

Shared Bathrooms

- Shared bathrooms cleaned regularly using EPA-registered disinfectants at least twice per day
- Continuously stocked with soap and paper towels
- Trash cans emptied regularly
- Post hand hygiene poster for reminder
- Avoid placing toothbrushes directly on counter surface



Hand hygiene posters:

<https://www.cdc.gov/handwashing/posters.html>

▶ Resident Rooms



To reduce the spread of germs, keep the resident's environment clean and free of clutter.

Laundry

- Dirty laundry from a person who is sick can be washed with other people's items, but should be handled with gloves
- Do not shake laundry
- Wear disposable gloves
- Wash items according to label and manufacturer's instructions
- Use warmest water setting you can
- Remove gloves and wash hands right way after putting dirty laundry into washer
- Dry laundry completely
- Wash hands after putting clothes in dryer
- Clean and disinfect clothes hampers and wash hands afterwards



To review best practices,
click here:
[Appendix D: Linen and
Laundry Management |
Environmental Cleaning in
RLS | HAI | CDC](#)

Biohazard Disposal



Regular Trash



Sharps



Biohazard Trash

Multidrug-Resistant Organisms (MDROs)

MDROs



Multidrug-Resistant Organisms (MDROs) are germs that have developed resistance to one or more antibiotics

Common Types

- ❖ MRSA
- ❖ VRE
- ❖ CRPA
- ❖ CRE
- ❖ CRAB
- ❖ *Candida auris*

MDROs

- Colonization vs Infection
 - ▣ Colonization- asymptomatic carrier
 - ▣ Infection- symptoms present
- What you can do about it- prevent the spread
 - ▣ Standard and Contact precautions
 - ▣ Hand Hygiene
 - ▣ Cleaning and disinfecting surfaces and equipment

Why Infection Prevention Matters

<https://stock.adobe.com/images/>



- ✓ Saves lives
- ✓ Preserves quality of life
 - Comfort
 - Health
 - Happiness
- ✓ Saves healthcare costs

▶ Putting it into Practice

Takeaway thoughts

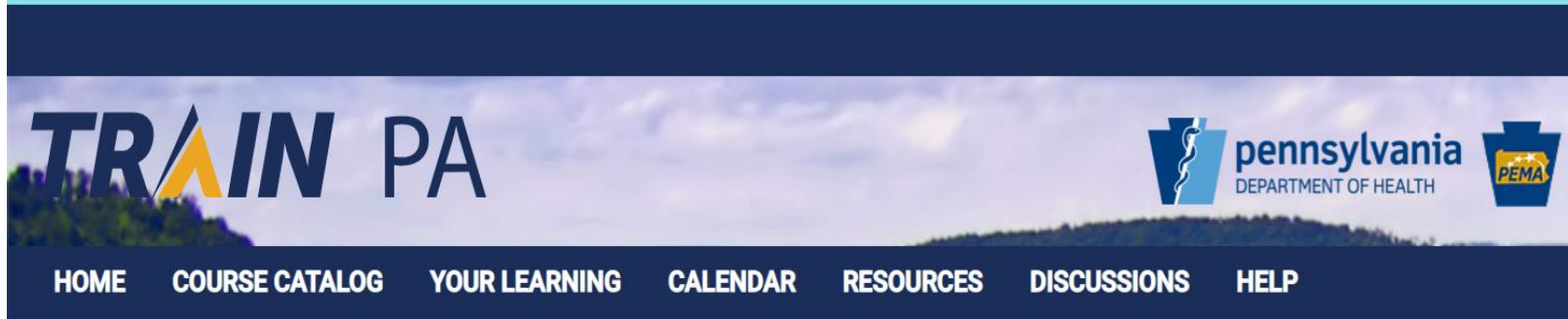
1. Was there anything new that you learned from this webinar? How can you implement the practice at your group home?
2. What would be the most challenging new practice to implement in your home and why is it challenging? What are the barriers holding you back?

▶ Additional Resources

IPC Healthcare Training

- ▼ [Project Firstline](#)
- ▼ [TRAIN PA](#)
 - ▼ Create account
 - ▼ Search: "PA HAI"

▶ Additional Resources



TRAIN PA

HOME COURSE CATALOG YOUR LEARNING CALENDAR RESOURCES DISCUSSIONS HELP

Use this page to search for any course or document on the TRAIN Learning Network site. The results may be limited by any groups you have ([your profile for details](#)).

Filters

Search By ▼

- [Courses](#)
- [Training Plans](#)
- [Calendar Events](#)
- [Resources](#)
- [Discussions](#)

744 record(s) found.

- [PA-HAI: Waterborne Pathogens - Legionella - Recorded](#)
- PA
- [PA-HAI: Pennsylvania Candida auris Symposium Recorded Event](#)
- PA

NICC Team Contact



Email: RA-DHNICCSupport@pa.gov

Phone: 717-425-5422