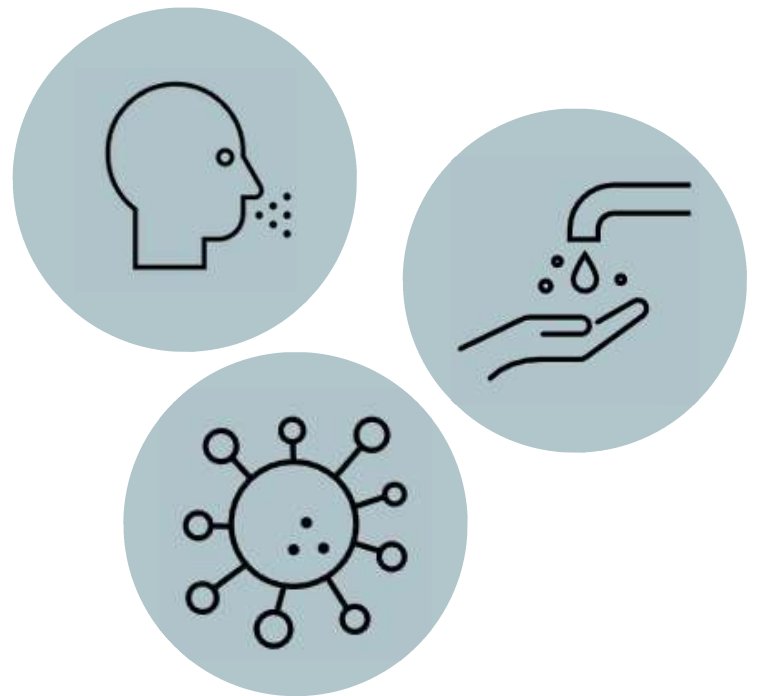


Environmental Services Best Practices:
A PROJECT FIRSTLINE TOOLKIT FOR

Infection Control

IN NURSING HOMES



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Introduction

The Toledo-Lucas County Health Department (TLCHD) is pleased to introduce you to Project Firstline, an infection prevention and control (IPC) initiative designed specifically for frontline healthcare workers in skilled nursing facilities (SNFs).

This toolkit aims to assist Environmental Services (EVS) staff.

As an EVS staff member, you play a vital role in resident care by maintaining a safe and clean environment. Project Firstline offers an engaging and supportive guide beyond basic procedures, helping them understand why infection control practices matter, not just how to perform them. This toolkit empowers EVS staff to confidently protect themselves, their coworkers, and the residents they serve by strengthening their IPC knowledge and skills.

Participation in this toolkit will equip your EVS staff with:

1. Practical IPC knowledge is designed to improve their understanding and application of IPC principles.
2. Adaptable resources that can be easily integrated into an existing IPC program.
3. Ongoing support and engagement from TLCHD in everyday practice.

Managers: How to Use This Toolkit

Supervisors at skilled nursing facilities may use the materials in this toolkit for new staff orientations, in-services, on-the-spot training, and more. Materials can be shared in several ways, not limited to the following:

- Create your own slides and corresponding scripts to engage staff in a live, interactive presentation.
- Extract key messages from our material to incorporate into your organization's existing training and communications for staff.
- Conduct a review of CDC-recommended best practices for infection control in nursing homes.

The Project Firstline EVS toolkit consists of 4 chapters that are built upon each other, each designed to provide engaging learning opportunities with optional discussion questions and activities to reinforce learning concepts. All chapters include question prompts throughout to engage EVS staff in a meaningful way.

All tools are meant to be opportunities for collaboration where everyone can learn, and it is critical to maintain a supportive learning environment. Keep this a positive learning experience. Instead of using these materials to single out an individual's poor technique, take the time to improve processes and offer support to staff so that they will feel comfortable coming to leadership when needed.

Useful Definitions

Airborne precautions: Precautions required to protect against airborne transmission of infectious diseases.

Alcohol-based hand rub: An alcohol-containing preparation designed to reduce the number of organisms on the hands without the use or aid of running water.

Antimicrobial: A chemical substance that inhibits or destroys bacteria, viruses, or fungi, and can be safely administered to humans and animals.

Cleaning: The removal of dirt and germs from surfaces (Example – bed rails, door knobs, etc.).

Clinical waste: Waste material that consists of human or animal tissue, blood, or body substances, drugs or other pharmaceutical products, swabs/dressings, syringes, needles, or other sharp instruments.

Decontamination: Use of physical or chemical means to remove or destroy bacteria that cause disease on a surface or item so that they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Disinfection: The chemical process of killing germs on a surface.

Droplet precautions: Precautions used for patients known or suspected to be infected with diseases spread by respiratory droplets (particles of moisture created when a person talks, coughs, or sneezes)

Healthcare worker (HCW): All people delivering healthcare services, including students and trainees who have contact with patients or with blood or body substances.

Healthcare-associated infections (HAIs): Infections that patients develop while receiving medical care in a healthcare facility.

Infectious disease: An illness caused by bacteria, viruses, fungi, or parasites that enter the body and spread from person to person, animal to person, or the environment to a person.

Outbreak: The occurrence of more than 1 case of a particular disease (Example – COVID, etc.).

Personal protective equipment (PPE): Clothing, masks, gloves, or other equipment designed to protect the person from injury or infection.

Standard precautions: Infection control practices used to prevent the spread of disease that are applied to all patients regardless of their suspected infection status.

Transmission-based precautions: Extra infection control practices (Example – contact precautions, enhanced barrier precautions, etc.) used for patients with known or suspected infections that are serious and can spread to others in the facility.

Useful Acronyms

ABHR	Alcohol-Based Hand Rub
AR	Antibiotic Resistance
BBP	Bloodborne pathogen
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare and Medicaid Services
CDIFF	<i>Clostridium difficile</i>
CAUTI	Catheter-Associated Infection Urinary Tract Infection
CLABSI	Central Line Associated Blood Stream Infection
CMS	Centers for Medicare and Medicaid Services
CP-CRE	<i>Carbapenemase-Producing Carbapenem-Resistant Enterobacterales</i>
CRAB	Carbapenem-Resistant <i>Acinetobacter baumannii</i>
CRE	Carbapenem-Resistant <i>Enterobacterales</i>
HAI	Healthcare-Associated Infections
HCP	Healthcare personnel
HCW	Health Care Worker
ICP(s)	Infection Control Practitioner(s), Infection Control Professional(s)
IP	Infection Preventionist
LTC	Long-Term Care
LTCF	Long-Term Care Facility
MDRO	Multi-Drug-Resistant Organism
MRSA	Methicillin-Resistant <i>Staphylococcus aureus</i>
ODH	Ohio Department of Health
PPE	Personal Protective Equipment
SNF	Skilled Nursing Facility
SSI	Surgical Site Infection
TLCHD	Toledo-Lucas County Health Department

Chapter 1: Hand Hygiene

The most common mode of transmitting pathogens is via your hands. This makes hand hygiene, or making sure your hands are clean, the easiest way to reduce the risk of spreading germs within the facility. In addition to handwashing, using alcohol-based hand sanitizers in health care settings greatly improves hand hygiene.



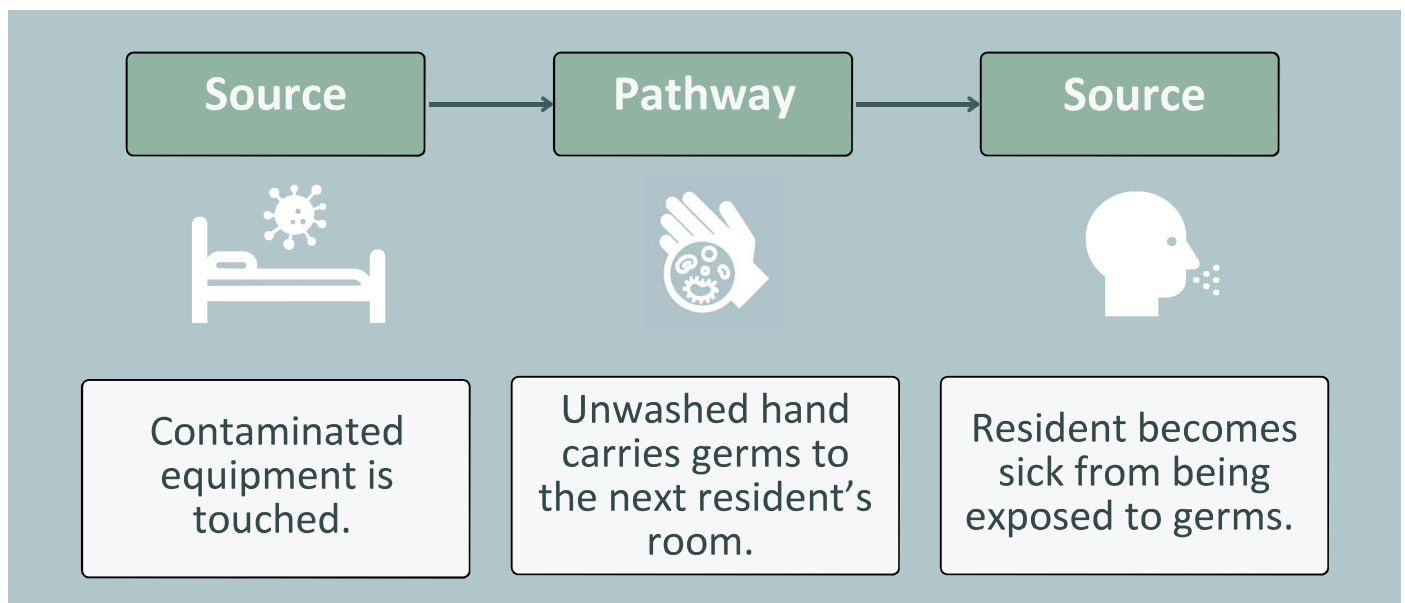
Best Practice Recommendations for Management

- Have written hand hygiene policies in place that promote handwashing first, followed by the preferential use of alcohol based hand sanitizers.
- Gloves should be used during patient care activities that may involve exposure to blood or other body fluids, during contact precautions, and in outbreak situations. Hand hygiene should be performed before putting on and after removing gloves.
- Make sure that hand hygiene supplies are readily accessible at entrances and throughout the facility, especially in patient care areas, hallways, and resident rooms. Place alcohol-based hand sanitizer dispensers near the doorways of rooms to promote hand hygiene from entry to exit.
- Provide hand hygiene training to all staff and all volunteers (e.g., food handlers, clergy, hairdressers, pet therapists, recreation therapists, and others). Ensure staff are trained to clean thumbs, between fingers, and under fingernails, as these areas are most often missed when using alcohol-based hand sanitizers.
- Provide formal hand hygiene training for new hires and annually.
- Routinely audit staff throughout the year to ensure ongoing hand hygiene skills and compliance.
- Document all training sessions, audits, and significant feedback in the employee's record.
- When hands are visibly soiled and when there is the likelihood of exposure to *C. difficile* or norovirus, wash hands with soap and water, rather than using an alcohol-based sanitizer.

Key Points

Where do germs live and how do they spread?

- **Germs originate from various sources.** The environment and your body are common sources where germs can live and multiply.
- **There are several pathways for how germs can spread.** These include touching a contaminated surface, breathing in airborne germs, or splashing contaminated liquid, which can send germs into the air



Ask yourself: How can I stop spreading germs?

The best way to prevent germs from spreading is to wash your hands correctly.

A Practical Guide to Hand Hygiene

When should you practice hand hygiene?

- When entering a resident's room: Sanitize hands before putting on gloves.
- Between dirty and clean tasks.
- Between cleaning resident bedspaces.
- Upon leaving a resident's room: Remove PPE, wash hands, leave.

How should you practice hand hygiene?

- *Soap and Water*: follow the steps below and scrub for at least 20 seconds to properly remove germs.

HOW TO WASH YOUR HANDS



WET YOUR HANDS



APPLY THE SOAP



SCRUB YOUR HANDS



CLEAN YOUR THUMBS



RINSE YOUR HANDS



DRY WITH SINGLE USE TOWEL

- *Alcohol-Based Hand Rub (ABHR)*: Apply to the palms of the hands, using enough product to cover all hand surfaces. Rub hands together until dry, spreading the product between fingers, fingernails, and on the front and back of hands, thumbs and wrists.

When to Use Soap & Water Vs. Alcohol-Based Hand Rub (ABHR)



Use soap and water when:

- Hands are visibly dirty.
- After contact with bodily fluids.
- Resident has an infection (such as *C. difficile*)
- Before and after meals.
- After using the restroom.



Use ABHR when:

- Hands are not visibly dirty.
- Touching clean supplies from the cart.
- Upon entry and exit of every resident or bedspace.
- Before donning (putting on) and after doffing (taking off) gloves.

Other Hand Hygiene Considerations

- Gloves are NOT a substitute for hand cleaning. Clean your hands before putting on and immediately after removing gloves.
- Use facility-approved soap, ABHR, and hand creams. Tell your supervisor if your hands develop cracks or redness.
- Germs can live under your fingernails and in the cracks of chipped nail polish. Keep nails short and natural to prevent germs from spreading to you and others.

Additional Resources for Hand Hygiene

- To download hand hygiene tools and training resources from the CDC, visit [cdc.gov](https://www.cdc.gov) and search for “**hand hygiene**”.
- For World Health Organization hand hygiene resources, visit [who.int](https://www.who.int) and search for “**clean your hands**”.
- For free Medscape CME training on hand hygiene and non-sterile glove use, visit [Medscape.com](https://www.medscape.com) and search for “**CME glove use**”.

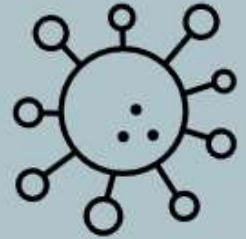
Clean hands save lives!

Resources

1. Pittet D, Hugonnet S, Harbarth S, et al Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. Infection Control Programme. Lancet. 2000;356(9238):1307-1312
2. Hand Hygiene Guidelines (CDC) <https://www.cdc.gov/handhygiene/providers/guideline.HTML>
3. Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (CDC, 2007) <https://www.cdc.gov/infection-control/media/pdfs/Guideline-Isolation-H.pdf>
4. Clean Hands Video, Centers for Disease Control and Prevention (CDC) (www.youtube.com/watch?v=xmYMUJy7qiE)
5. Hand Hygiene, CDC (www.cdc.gov/handhygiene/index.html)
6. Healthcare-Associated Infections Program, California Department of Public Health (CDPH) (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/HAIProgramHome.aspx)
7. Project Firstline, CDC (www.cdc.gov/infectioncontrol/projectfirstline/index.html)
8. Your 5 Moments for Hand Hygiene, World Health Organization (WHO) ([cdn.who.int/media/docs/default-source/integrated-health-services-\(ihs\)/infection-prevention-and-control/your-5-moments-for-hand-hygiene-poster.pdf?sfvrsn=83e2fb0e_16](http://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/infection-prevention-and-control/your-5-moments-for-hand-hygiene-poster.pdf?sfvrsn=83e2fb0e_16))
9. Project Firstline Training Toolkit for Environmental Services (EVS) staff. <https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ProjectFirstlineEVSToolkit.aspx>

Chapter 2: Understanding Disinfectants

More than half of high-touch surfaces are not effectively cleaned at discharge. Improper cleaning and disinfection of environmental surfaces allow germs to spread, leading to illness. Improved cleaning and disinfection results in a 25% lower risk of acquiring MRSA or *C. difficile*. The Environmental Services team is part of the first line of defense against germs!



Best Practice Recommendations for Management

- Develop written policies detailing routine and terminal cleaning, including disinfection of resident rooms, high-touch surfaces, shared equipment, and reusable medical devices. Include special procedures for *C. difficile*, *C. auris*, and *norovirus*.
- Clearly assign staff responsibilities for cleaning tasks and inspection frequencies.
- Provide easily accessible EPA-registered hospital disinfectants. Label them clearly and require staff to follow the manufacturer's instructions, especially contact times. Use EPA-registered hospital disinfectants for most areas; specify any surfaces needing products effective against *C. difficile* and *norovirus* in your policies.
- Clean blood and body substances using EPA List D or E products with HIV/HBV claims, per label directions.
- Train all staff on cleaning policies at hire, annually, and when new equipment is introduced or procedures are introduced. Regularly document competency and attendance.
- Ensure that contractors providing environmental services meet best practice standards and train their staff appropriately.
- Conduct regular audits to monitor facility and contractor cleaning practices.
- Provide clean spaces for external providers (e.g., podiatrists) and clarify that they are responsible for cleaning and disinfecting their own equipment.

Key Points for EVS Staff to Know

There is a difference between cleaning and disinfecting.

Cleaning: The act of scrubbing surfaces with water and detergent to physically remove dust, dirt, and bodily fluids.

Disinfection: The chemical process of killing germs on a surface.

Disinfectants don't work if cleaning doesn't happen first. Remember to clean before disinfecting.

Always follow your facility's protocol when cleaning and disinfecting surfaces.



Detergents

These are cleaning agents mixed with water and used for scrubbing to lift dirt off the surface. Soap is a type of detergent.

- They are less toxic, often unscented or have a milder scent, and are cheaper than disinfectants.
- Detergents do not kill germs; they only help remove them from a surface.
- Germs can live in contaminated cleaning solutions, so please make sure you change your water often.

Tips for preparing a cleaning solution with detergents:

- Prepare solutions in a designated area such as a housekeeping closet.
- Follow the label's instructions.
- Use accurate measuring tools, such as a measuring cup; never "eyeball" or "guesstimate" the measurement of an agent to water.
- Use PPE to prevent being splashed or sprayed.

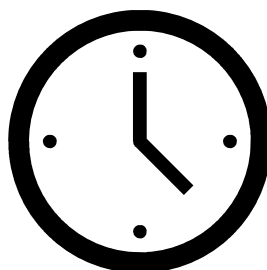
Disinfectants

Chemicals that kill germs are used on hard, non-absorbent surfaces such as bedrails and bedside tables.

A one-step detergent-disinfectant can clean and disinfect at the same time.

Contact/Wet Time

- To properly kill germs, a surface must remain wet with the chemical for long enough.
- The amount of time required for a disinfectant to kill germs on an already cleaned surface is referred to as the Contact Time or Wet Time.
- You may have to reapply to achieve enough contact time. Always follow label instructions for the appropriate contact wet time.



Types of Disinfectants

Disinfectant Type	Properties
Quaternary Ammonium Products (Quats)	<ul style="list-style-type: none">• Widely-used• Generally, doesn't kill spores• Can cause health problems; ensure proper personal protective equipment (PPE) use
Chlorine-based (Bleach)	<ul style="list-style-type: none">• Kills a wide range of germs including spores• Fast-acting• Can cause health problems; ensure proper PPE use• Can damage metals and fabrics
Hydrogen peroxide, accelerated H₂O₂ (Oxides)	<ul style="list-style-type: none">• Kills a wide range of germs including spores• Can be shorter contact/wet time



Do not mix quats and bleach, as this can form a toxic gas.

Is your disinfectant appropriate for the task?

Check with your EVS manager if you are unsure.

- ✓ Use Environmental Protection Agency (EPA)-registered products and disinfectants labeled as “hospital-grade”.
- ✓ Check the type of germs that the disinfectant kills.
- ✓ Know the contact time required for the disinfectant to work.
- ✓ Understand the toxicity, PPE requirements, and appropriate use of the disinfectant.
- ✓ Always use disinfectant in the correct dilution according to the label (some disinfectants don't need to be diluted; double-check the label!)
- ✓ **Never mix different disinfectants together.**
- ✓ Don't “top off” or add new solutions to containers.
- ✓ Use appropriate disinfectants for the surface.

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?



ACTIVE INGREDIENTS:

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

EPA REG NO. 55555-55-55555

CAUTION

Directions for Use

INSTRUCTIONS FOR USE:

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

For Disinfection of Healthcare Organisms:

Staphylococcus aureus,
Pseudomonas aeruginosa.

To Disinfect Hard, Nonporous Surfaces:

Pre-wash surface.
Mop or wipe with disinfectant solution.
Allow solution to stay wet on surface for at least 10 minutes.
Rinse well and air dry.



EXP MM-DD-YYYY



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: 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.

POISON CONTROL: Call a Poison Control Center (1-866-366-5048) 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. Nonrefillable container. Do not reuse or refill this container.

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?



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



WWW.CDC.GOV/PROJECTFIRSTLINE

Resources

1. Guh A, Carling P, Environmental Evaluation Workgroup. Options for evaluating environmental cleaning. Centers for Disease Control and Prevention. 2010. Available at: <http://www.cdc.gov/HAI/pdfs/toolkits/Environ-Cleaning-Eval-Toolkit12-2-2010.pdf>. Accessed on September 23, 2016.
2. Practice guidance for healthcare environmental cleaning, second edition. Association for Healthcare Environment. Chicago: American Hospital Association, 2012.
3. Rutala WA, Gergen MF, Sickbert-Bennett EE, et al. Effectiveness of improved hydrogen peroxide in decontaminating privacy curtains contaminated with multidrug-resistant pathogens. *Am J Infect Control*. 2014; 42(4): 426–8.
4. Rutala WA, Weber DJ. Disinfectants used for environmental disinfection and new room decontamination technology. *Am J Infect Control*. 2013; 41(5 Suppl): S36-41.
5. Rutala WA, Weber DJ, Healthcare Infection Control Practices Advisory Committee. Guideline for disinfection and sterilization in healthcare facilities, 2008. Centers for Disease Control and Prevention. 2008. Available at https://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf.
6. Trillis F 3rd, Eckstein EC, Budavich R, et al. Contamination of hospital curtains with healthcare-associated pathogens. *Infect Control Hosp Epidemiol*. 2008; 29(110): 1074–76
7. Project Firstline Training Toolkit for Environmental Services (EVS) staff
<https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ProjectFirstlineEVSToolkit.aspx>
8. Training and Educational Materials <https://www.cdc.gov/project-firstline/hcp/training/index.html>

Chapter 3: Setting up a Cleaning Cart

A well-organized cleaning cart is the foundation for efficient, effective work. It ensures that you have the right tools and supplies readily available, helps prevent cross-contamination, and presents a professional image throughout the facility.

In this chapter, we'll guide you through how to properly set up, stock, and maintain your cleaning cart to meet infection control standards, support your workflow, and contribute to the overall safety and well-being of everyone in the facility.



Best Practice Recommendations for Management

- Provide clear guidelines for what every cart should contain, how it should be organized, and how supplies should be replenished. Use photos or diagrams as visual aids.
- Regularly monitor inventory to ensure staff have easy access to EPA-registered disinfectants, clean microfiber cloths, mop heads, PPE (gloves, masks), and any other necessary tools.
- Train staff to separate clean and dirty items on the cart to prevent cross-contamination (e.g., color-coded cloths, designated areas for soiled materials).
- Require that cleaning carts themselves be cleaned and disinfected regularly to prevent carts from becoming sources of contamination.
- Perform spot checks on cart setup and cleanliness during routine rounds. Offer immediate feedback and positive feedback to reinforce standards.

Key Points for EVS Staff to Know

Considerations When Setting Up Your Cart for Safety, Efficiency, & Convenience.

- Use containers provided or approved by the disinfectant manufacturer.
- Make sure the chemical and the label match.
- Never refill the containers with different chemicals.
- Never refill one-time-use dispensers.
- Check expiration dates.
- Be familiar with the products and tools you are using.
- Identify supply needs.
- Work efficiently to save time.
- Clean your hands and put on clean gloves before you touch clean items on your cart.

Manual Preparation of Environmental Cleaning Products:

- Always prepare solutions in a designated area, according to the manufacturer's instructions, and with accurate measuring tools (do not "eyeball").
- Discard solutions according to facility policy and label instructions.
- Wear appropriate PPE when prepping solutions.

Gown



Mask



Gloves



Face shield/Goggles



Gathering Supplies and Cart Setup*

What goes *on top* of the cart?

- Alcohol-based hand rub (ABHR) & soap refills
- Required PPE
- Resident room supplies



What goes *inside* the cart?

- Microfiber cleaning cloth
- Cleaning solutions and disinfectants
- Solution containers
- Bags or bins for soiled materials



What goes *on the front* of the cart?

- Mops with removable mophead/floor mops
- Broom/dry mop
- Duster
- Buckets
- Wet floor caution signs
- Soiled linen and trash bags



* May vary by facility

Guidelines for Daily Tasks

When getting ready to clean a room, ask yourself the following:

- What is the type of room? (single-occupancy, multiple occupancy).
- Are there special cleaning needs? (isolation room, ventilated resident, room obstacles)
- What resident room supplies need to be replenished?

Cleaning Reusable Equipment and Cart Storage

- Clean and disinfect the reusable cleaning supplies (e.g., mop) after each use. This reduces the number of germs living on the surfaces of your cart, helping to avoid germ transmission. This should be done only in designated areas.
- At the end of your shift, remove dirty mop heads and soiled microfiber cleaning cloths, clean and disinfect them according to the manufacturer's instructions, and follow your facility's policy for cleaning the EVS cart and closet.

Dos and Don'ts for Cleaning Carts



- ✓ Stock enough resident room supplies
- ✓ Have access to ABHR
- ✓ Stock enough microfiber cleaning cloths so they can be changed when soiled
- ✓ Use buckets or bins for disinfectant solution
- ✓ Use microfiber mops
- ✓ Separate clean and soiled items
- ✓ Clean and disinfect reusable equipment
- ✓ Clean high-touch surfaces at least once per shift
- ✓ Keep a reference list of high-touch surfaces on your cart
- ✓ Know the required contact/wet times for all disinfectants used
- ✓ Have a lockable compartment
- ✓ Store in a designated EVS area



- ✗ Never mix different chemicals
- ✗ Do not refill containers
- ✗ Do not mix clean and soiled materials
- ✗ Do not use the same cloth for two different resident bed spaces
- ✗ Do not use a dirty cloth on a clean area
- ✗ Never store personal items, food, or beverages on carts or in the EVS closet
- ✗ Do not use spray bottles
- ✗ Never leave the cart unattended

Resources

1. Project Firstline Training Toolkit for Environmental Services (EVS) staff

<https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ProjectFirstlineEVSToolkit.aspx>

2. Training and Educational Materials

<https://www.cdc.gov/project-firstline/hcp/training/index.html>

3. Cleaning and Disinfection Strategies for Non-Critical Surfaces and Equipment, CDC (PDF) (www.cdc.gov/infectioncontrol/pdf/strive/EC102-508.pdf)

4. Disinfection and Sterilization, Centers for Disease Control (CDC)

(www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html)

5. Environmental Cleaning, Healthcare-Associated Infections Program, California Department of Public Health (CDPH) (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/EnvironmentalCleaning.aspx)

6. Environmental Cleaning in Healthcare Part 1: Set up the Cleaning Cart, Nebraska Infection Control Assessment and Promotion Program (ICAP) and Nebraska Antimicrobial Stewardship Assessment and Promotion Program (ASAP) (Video)

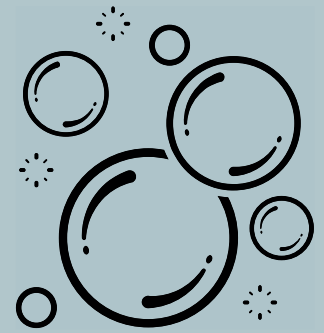
(www.youtube.com/watch?v=_O4B0Nmfr40)

7. Healthcare Environmental Infection Prevention and Control

(www.cdc.gov/hai/prevent/environment/index.html)

Chapter 4: Cleaning and Disinfection of Resident Rooms

Proper cleaning and disinfection of rooms is one of the most critical steps in preventing the spread of infections within the facility. Every surface you clean and every protocol you follow contributes directly to patient safety and quality care. This chapter will cover key expectations and reminders to ensure that all rooms are thoroughly cleaned and disinfected according to best practices.



Best Practice Recommendations for Management

- Develop and maintain detailed SOPs for different room types.
- Use visual checklists to ensure steps aren't skipped.
- Provide regular training on proper cleaning and disinfecting techniques, use of PPE, and chemical safety.
- Perform routine audits and competency evaluations to ensure compliance.
- Use standardized communication tools (e.g., whiteboards, digital logs) to track room status.
- Implement quality assurance tools such as fluorescent marking, ATP testing, or visual inspections.
- Provide constructive feedback and celebrate successes.
- Ensure adequate staffing levels and reasonable room turnaround expectations.

Key Points for EVS Staff to Know

Why do Cleaning and Disinfection Matter?

Germs are present everywhere, including on objects and surfaces in the resident's room. Germs are a source of infection, and improper cleaning or disinfection allows germs to spread, leading to more infections.

What are High-Touch Surfaces?

These are surfaces that are most likely to be contaminated by germs because they are touched by healthcare workers and residents more often. These need to be cleaned at least daily and if soiled.

Examples of High-Touch Surfaces

Doorknobs
Light Switch
Bed Pans
Toilet Handle
Bedrail

Call Button
TV Remote
IV Pump & Pole
Bedside Table
Commode Chair

Keyboards
Tray Table
Telephone
Chairs
Equipment



Before you clean...

- ✓ Coordinate with nursing staff (or follow the facility schedule) on which rooms need to be cleaned and when they need to be cleaned.
- ✓ Check isolation signage for required PPE and supplies.
- ✓ Stock supplies in the EVS cart (e.g., prepare the needed number of microfiber cleaning cloths).
- ✓ Clean your hands before handling cleaning supplies and put on PPE based on the isolation signage.

The Standardized Cleaning Process

1. Work from clean to dirty

- Start with shared equipment & common surfaces, such as countertops.
- Move to items touched during patient care, such as equipment.
- Finally, clean items that have come into direct contact with the patient, such as the bedrails.

2. Clean from top to bottom

- Start with the walls, or items at height, and move to the floors.

3. Establish a pattern

- This helps keep the process consistent, so you don't forget anything.

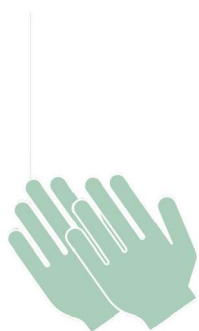
4. Prevent recontamination

- Do not touch clean items with dirty hands or materials.
- Follow your facility's established procedures for environmental contamination.



Best Practices for Cleaning and Disinfection

- Organize supplies in the EVS cart.
- Ensure surfaces are clean before disinfecting.
- Identify and prioritize high-touch surfaces to clean.
- Start from clean areas and work towards dirty areas.
- Clean from top to bottom.
- Use appropriate PPE.
- Clean hands before and after cleaning tasks.
- Don't touch clean supplies with dirty hands.
- Never mix bleach and quaternary ammonium products (quats).
- Follow the facility's standard cleaning process for equipment and floors.
- Remove trash and other items.
- Remove gloves and clean your hands when going from a dirty task to a clean task.
- Change cleaning cloths between cleaning resident care areas, and when moving from a dirty to a clean task.
- Clean and disinfect supplies before placing them back on the cart.



GLOVE REMINDER:

Gloves are not a substitute for hand hygiene. You must change gloves and clean your hands when moving from dirty to clean tasks (e.g., after cleaning the toilet, before getting the mop from the cart)

Never reuse gloves!

Terminal Room Cleaning

This refers to the process of cleaning and disinfecting a patient's room that is performed after the patient is discharged, transferred, or passes away, especially if the patient was in isolation/contact/enhanced barrier/contact precautions for an infectious disease.

In addition to all steps in a normal room cleaning:

1. Work with the CNA to remove the resident's belongings before cleaning the room.
2. Remove any paper and tape from the walls or equipment
3. Discard used disposable items if used (e.g., paper-based bedpans).
4. Send any reusable items to be reprocessed.
5. Clean the walls, blinds, and window curtains.
6. Discard any open supplies and replace any privacy curtains after they have been processed.



Other Important Considerations...

- Everyone plays a role in cleaning and disinfecting!
- Clinical staff can remove the resident's personal items so EVS can better focus on cleaning
- Cleaning decreases germ bioburden presence in the room: The cleaner the room, the lower the chances of spreading germs.
- Use an Environmental Cleaning Checklist to Ensure all Surfaces are Clean

Additional Resources for Cleaning and Disinfection

The following organizations offer environmental infection control guidance:

- CDC: visit [cdc.gov](https://www.cdc.gov) and search for "**Environmental Guidelines.**"
- Asia Pacific Society of Infection Control: visit pubmed.gov and search for "**APASIC Guidelines for environmental cleaning and decontamination.**"

To download the CDC's environmental cleaning evaluation toolkit, including checklists, visit [cdc.gov](https://www.cdc.gov) and search for "**evaluating environmental cleaning.**"

The following organizations offer recommendations on environmental disinfection for *Candida auris*:

- CDC: visit [cdc.gov](https://www.cdc.gov) and search for "**Environmental disinfection for Candida auris.**"
- Environmental Protection Agency: visit [epa.gov](https://www.epa.gov) and search for "**candida auris**"; this resource also includes a list of antimicrobial products effective against *Clostridium difficile* spores.

The following organizations offer free CME/CE activities on Environmental Services and Infection Control:

- Medscape: visit [medscape.com](https://www.medscape.com) and search for "**CME Environmental Services and Infection Prevention**"
- The University of North Carolina at Chapel Hill: visit [spice.unc.edu](https://www.spice.unc.edu) and search for "**environmental disinfection.**"

Resources

1. CDC Environmental Checklist for Monitoring Terminal Cleaning, Centers for Disease Control and Prevention (CDC) (PDF) (www.cdc.gov/hai/pdfs/toolkits/environmental-cleaning-checklist-10-6-2010.pdf)
2. Cleaning, Disinfection and Reprocessing Reusable Equipment | California Department of Public Health (CDPH) Healthcare-Associated Infections (HAI) Program (PDF) (www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/SNF_OnlineIPCOURSE_Gs_Cleaning%20Disinfection%20Reprocessing_012521_ADA.pdf)
3. Cleaning and Disinfection Strategies for Non-Critical Surfaces and Equipment, CDC (www.cdc.gov/infectioncontrol/pdf/strive/EC102-508.pdf)
4. Environmental Cleaning and Disinfection, CDC (www.train.org/cdctrain/course/1081815/) Note: must make account to access
5. Reprocessing Reusable Resident Care Equipment, CDC (www.train.org/cdctrain/course/1081814/) Note: must make account to access
6. Project Firstline Training Toolkit for Environmental Services (EVS) staff. <https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ProjectFirstlineEVSToolkit.aspx>