Housekeeping

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County of Los Angeles Public Health

Environmental Cleaning & Disinfection

Session 6

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Infection Preventionist

Session Schedule

Topics	Date
1 - Hand Hygiene	Wednesday, October 5th, 1:30-2:30 pm
2 – Creating a Sustainable Hand Hygiene QAPI Program	Wednesday, October 12th, 1:30-2:30 pm
3 - IPC Domains and Common HAIs	Wednesday, October 19th, 1:30-2:30 pm
4 - Common HAIs Part 2	Wednesday, October 26th, 1:30-2:30 pm
5 - Employee Health	Wednesday, November 2nd, 1:30-2:30 pm
6 - Environmental Cleaning & Disinfecting	Wednesday, November 9th, 1:30-2:30 pm
7 - New Hire & Annual IPC Training for Staff	Wednesday, November 16th, 1:30-2:30 pm
8 - Environment of Care & Process Monitoring	Wednesday, November 23rd, 1:30-2:30 pm

TNT Program Objectives

- Enhance quality improvement and quality assurance performance improvement (QAPI) at LA County SNFs by providing foundational quality improvement education across all roles in SNFs
- Empower SNF staff to initiate performance improvement projects (PIPs) and own QI in their facility
- Improve patient safety and clinical outcomes

Session 6 Objectives

- Review basic **principles** of cleaning and disinfection.
- Review **steps** for safe and effective disinfectant use.
- Review **best practices** for cleaning the resident environment with practical application examples.

Importance of Cleaning and Disinfecting

- Studies show that contamination of the environment in healthcare settings is a significant factor in the transmission of HAIs. Indicating that environmental cleaning is a fundamental intervention in the prevention of transmission.

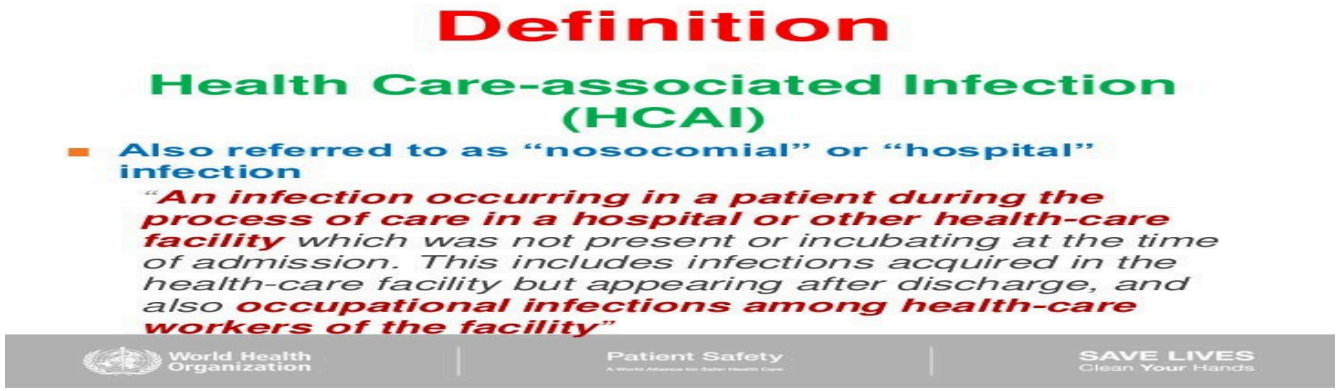
(https://www.cdc.gov/hai/prevent/resource-limited/introduction.html)

Why do we do it ?

- Resident environments contain organisms.
- Organisms can be easily transmitted to others.

Health Acquired Infections (HAIs)

- Healthcare-associated infections are a burden, substantially, worldwide.
- Ecological corruption plays a role in the passing on of HAIs in healthcare settings.
- Environmental cleaning is a part of standard and transmission base precaution within the framework of the facility's IPC program.



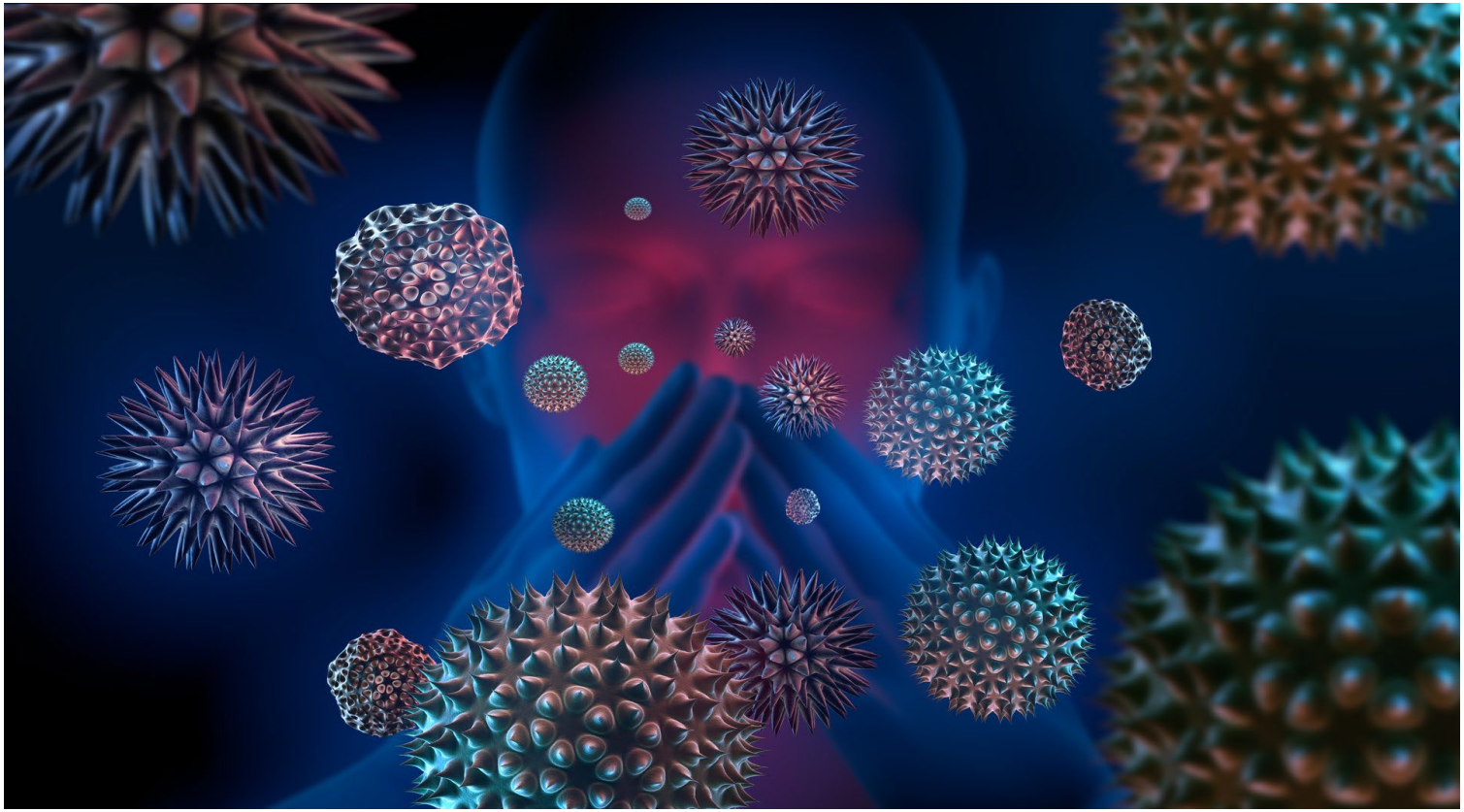
(https://www.cdc.gov/hai/prevent/resource-limited/introduction.html0

Infection

- The takeover and accumulation of microorganisms that are not customarily seen within the body.

(https://medlineplus.gov/germsandhygiene.htm)

Audience Question: What are germs?

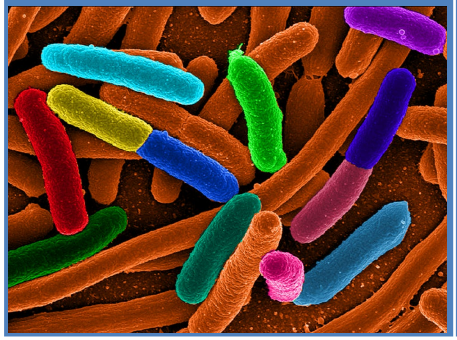


(https://medlineplus.gov/germsandhygiene.htm)

Germ Types

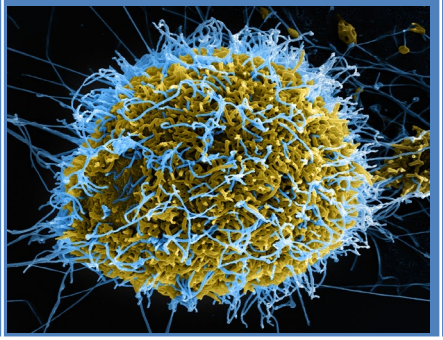
BACTERIA

Having only one cell, and can only be seen through a microscope, bacteria are shaped like rods, spirals and/or balls.



VIRUSES

This germ is very tiny in size, made of material that is genetic and our found inside of a coated protein.



FUNGI

These are less complex organisms, with a simple body design, which undergo changes in the structure of their body

PARASITES

Also tiny in size, they are organisms with one cell, called protozoa and can be seen with the naked eye.

(https://medlineplus.gov/germsandhygiene.htm)

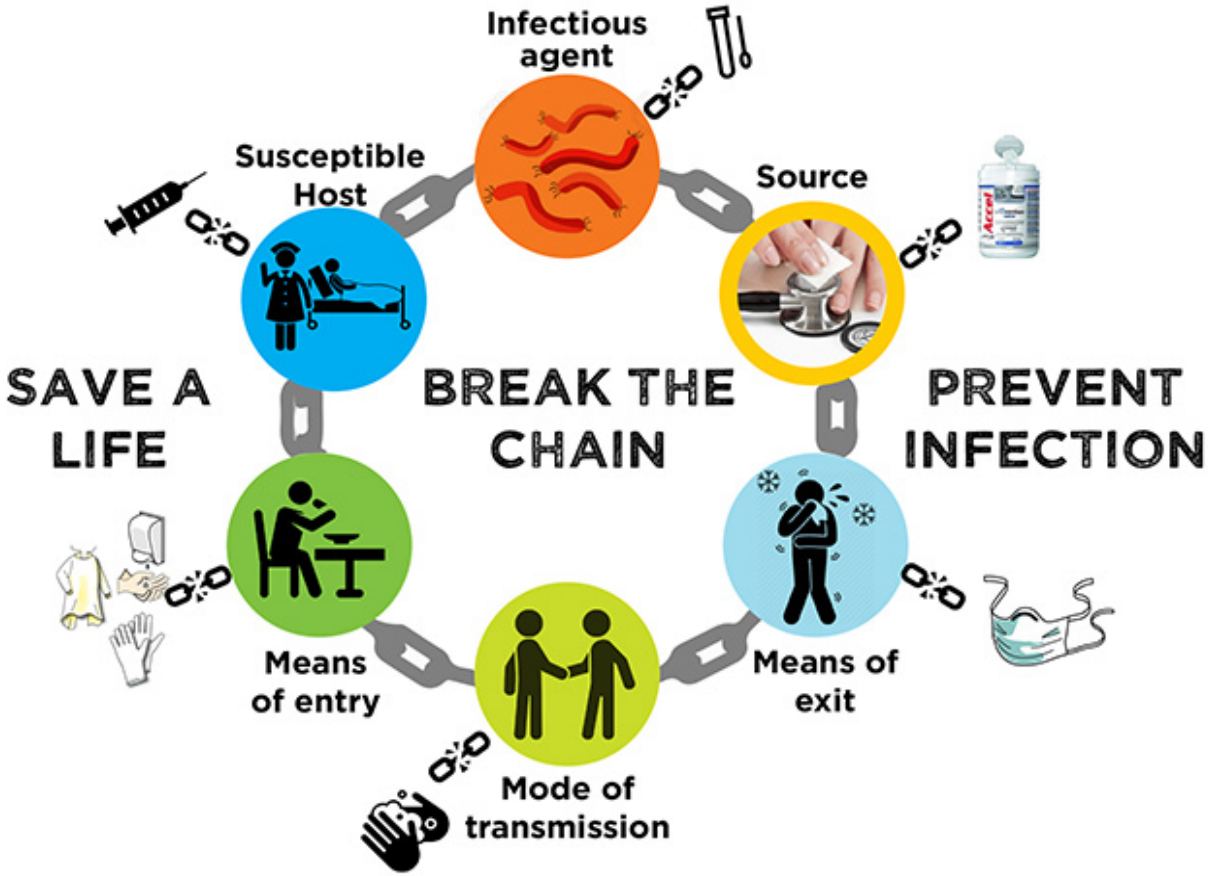
How do they spread?

Breathing Air

Contact/Touch

(https://medlineplus.gov/germsandhygiene.htm)

Save a life!
Break the chain!
Prevent Infection!

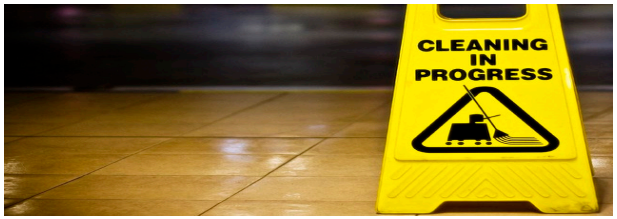


Key Components/Things to Consider

Cleaning & Disinfection

Key Terms of EVS 1

- **Antiseptic**: a substance that prevents or arrests the growth or action of microorganisms by inhibiting their activity or by destroying them. The term is used especially for preparations applied topically to living tissue.
- **Automatic dispensing system**: systems that provide computer controls (automation) for preparation of cleaning or disinfectant solutions. These systems replace the need for manually measuring a quantity of cleaning or disinfectant products and water
- **Cleaning**: the physical removal of foreign material (e.g., dust, soil) and organic material (e.g., blood, secretions, excretions, microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents, and mechanical action
- **Cleaning products** (also known as cleaning agents): liquids, powders, sprays, or granules that remove organic material (e.g., dirt, body fluids) from surfaces and suspend grease or oil. Can include liquid soap, enzymatic cleaners, and detergents.
- **Contact time**: the time that a disinfectant must be in contact with a surface or device to ensure that appropriate disinfection has occurred. For most disinfectants, the surface should remain wet for the required contact time.
- **Contamination**: the presence of any potentially infectious agent on environmental surfaces, clothing, bedding, surgical instruments or dressings, or other inanimate articles or substances, including water, medications, and food.

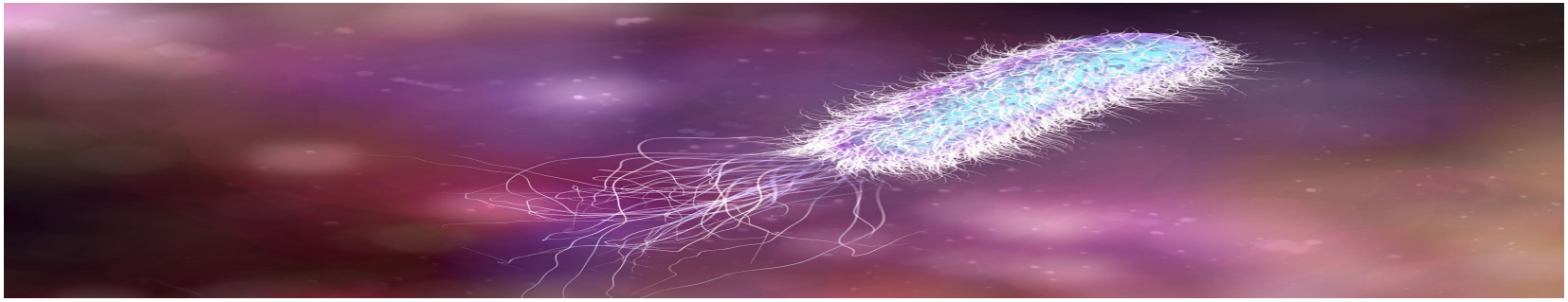


Key Terms of EVS 2

- **Disinfection:** a thermal or chemical process for inactivating microorganisms on inanimate objects.
- **Disinfectant**s: Chemical compounds that inactivate (i.e., kill) pathogens and other microbes and fall into one of three categories based on chemical formulation: low-level, mid-level, and high-level. Disinfectants are applied only to inanimate objects. All organic material and soil must be removed by a cleaning product before application of disinfectants. Some products combine a cleaner with a disinfectant.
- **Disinfectant solution**: a combination of water and disinfectant, in a ratio specified by the manufacturer.
- **Environmental cleaning**: cleaning and disinfection (when needed, according to risk level) of environmental surfaces (e.g., bed rails, mattresses, call buttons, chairs) and surfaces of noncritical patient care equipment (e.g., IV poles, stethoscopes).
- **Hand hygiene**: any action of hand cleansing to physically or mechanically remove dirt, organic material or microorganisms.
- **High-touch surfaces**: surfaces, often in patient care areas, that are frequently touched by healthcare workers and patients (e.g., bedrails, overbed table, IV pole, door knobs, medication carts). Environmental cleaning services area: a dedicated space for preparing, reprocessing, and storing clean or new environmental cleaning supplies and equipment, including cleaning products and PPE. Access is restricted to cleaning staff and authorized personnel.

Key terms of EVS 3

- **Multidrug-resistant organisms** (MDRO) and pathogens: germs (viruses, bacteria, and fungi) that develop the ability to defeat the drugs designed to kill them. Typically refers to an isolate that is resistant to at least one antibiotic in three or more drug classes.
- **Routine cleaning**: the regular cleaning (and disinfection, when indicated) when the room is occupied to remove organic material, reduce microbial contamination, and provide a visually clean environment. Emphasis is on surfaces within the patient zone. Safety data sheet (SDS): a document by the supplier or manufacturer of a chemical product that contains information on the product's potential hazards (health, fire, reactivity, and environmental) and how to work safely with it. It also contains information on the use, storage, handling, and emergency procedures.
- **Terminal (discharge) cleaning**: cleaning and disinfection after the patient is discharged or transferred. Includes the removal of organic material and significant reduction and elimination of microbial contamination.



Basic Principles of Cleaning

- **Clean** - The physical removal of debris (dust, soil, bodily fluid)using friction, water, and detergent.

- Cleaning should always start from the least soiled areas (cleanest) first to the most soiled areas (dirtiest) and from higher levels to lower levels.

- Detergent and/or disinfectant solutions must be discarded after each use.

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

Basic Principles of Disinfection

- **Disinfect** - The process of killing germs (microorganism that can cause illness or disease.

- Disinfectants are added to water to kill disease-causing microorganisms on surfaces and objects.

- Common disinfectants are bleach and alcohol solutions.

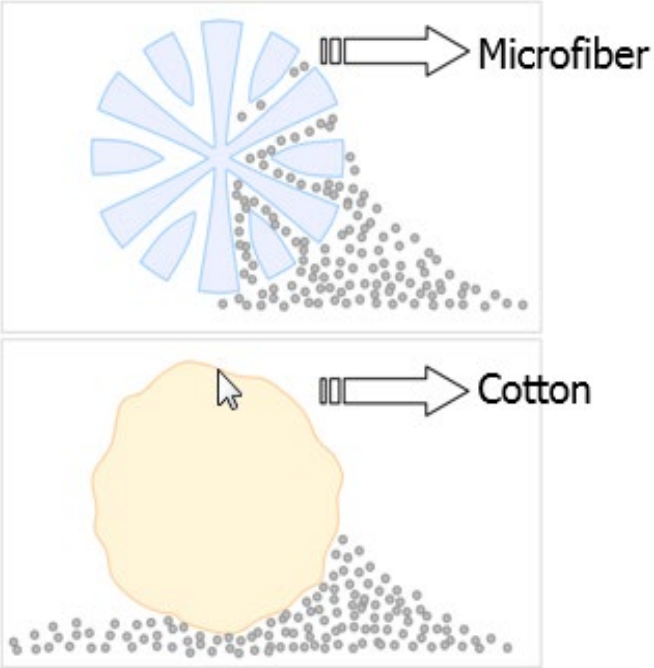
- Use of five main EPA-registered chemicals that hospitals use. (Quaternary Ammonium, Hypochlorite, Accelerated Hydrogen Peroxide, Phenolics, and Peracetic Acid)

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

Microfiber

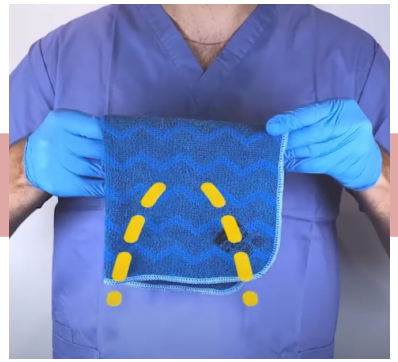
Microfiber vs. Cotton

- Microfiber cleans 50% better than comparable cotton
  - Attracts dust
  - Easier to use, lighter
  - Designed for repeat usage
- Microfiber was initially more expensive than cotton, but cleaned better, used less water and chemicals, and decreased labor costs.



UC Davis Case Study. Nov 2002; Trajtman. AJIC. 2015; CDC.gov

8-Sided Folding Technique



Link to video:
https://m.youtube.com/watch?v=bultzMc0GAw

CDC Strive Program

States **T**argeting **R**eduction in **I**nfections **v**ia **E**ngagement

1.https://apic.org/resources/topic-specific-infection-prevention/environmental-services/

6 Steps of Safe and Effective Disinfectant Use

6 Steps for Safe and Effective Disinfectant Use

Step 1: Check that your product is EPA-approved- Find the EPA registration number on the product. Then, check to see if it is on EPA's list of approved disinfectants.

List N was last updated on April 2, 2020.

Search: Export to PDF

Show 25 entries

List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against SARS-CoV-2

EPA Registration Number	Active Ingredient(s)	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)	Formulation Type	Surface Types for Use	Use Site	Emerging Viral Pathogen Claim?	Date Added to List N
84683-3	Thymol	Benefect Botanical Daily Cleaner Disinfectant Spray	Cleanwell LLC	Rhinovirus	10	RTU	Hard nonporous	Healthcare; Institutional; Residential	Yes	04/02/2020
88897-2	Quaternary ammonium; Isopropanol; Ethanol	Panther Disinfectant	Maxill Inc	Adenovirus; Feline calicivirus	3	RTU	Hard nonporous	Healthcare; Institutional	Yes	04/02/2020
42048-4	L-Lactic Acid	Sani-Cide EX3 (10X) RTU	Celeste Industries Corp	Feline calicivirus	10	RTU	Hard nonporous	Institutional	Yes	04/02/2020
66171-7	Quaternary ammonium; Glutaraldehyde	Synergize	Preserve International	Feline calicivirus	10	Dilutable	Hard nonporous	Institutional	Yes	04/02/2020
85837-4	Hydrogen peroxide	Proxi Home General Disinfectant Cleaner Spray	Innovasource LLC	Rhinovirus	10	RTU	Hard nonporous	Healthcare; Institutional; Residential	Yes	04/02/2020
498-179	Quaternary ammonium; Ethanol	Champion Sprayon Spray Disinfectant Formula 3	Chase Products Co	Rhinovirus	10	RTU	Hard nonporous	Healthcare; Institutional; Residential	Yes	04/02/2020
1839-236	Quaternary ammonium	SC-5:128N	Stepan Company	Rotavirus	5	Dilutable	Hard nonporous	Healthcare; Institutional;	Yes	04/02/2020

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

6 Steps for Safe and Effective Disinfectant Use

Step 2: Read the directions - Follow the product's directions. Check "use sites" and "surface types" to see where you can use the product. Read the "precautionary statement.

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

6 Steps for Safe and Effective Disinfectant Use

Step 3: Pre-clean the surface - Make sure to wash the surface with soap and water if the directions mention pre-cleaning or if the surface is visibly dirty.

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

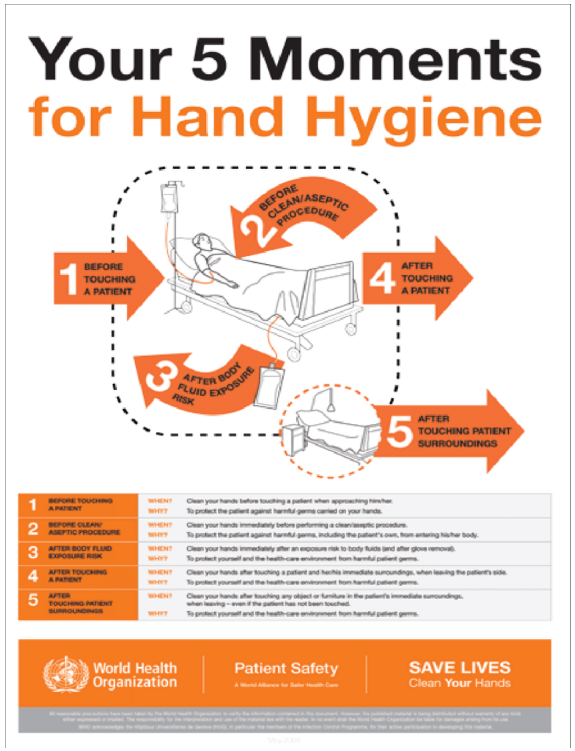
6 Steps for Safe and Effective Disinfectant Use

Step 4: Follow the contact time - You can find the contact time in the directions. The surface should remain wet the whole time to ensure the product is effective.

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

6 Steps for Safe and Effective Disinfectant Use

Step 5: Remember to complete hand hygiene before and after wearing Personal Protective Equipment (PPE) –PPE's must be discarded after each cleaning.



https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

LAC DPH Hand Hygiene Poster

KEEP HANDS CLEAN

✓ Prevent the spread of germs
✓ Protect your residents, yourself and your coworkers

How to Hand RUB

Steps

1. Dispense alcohol-based hand sanitizer (at least 60% alcohol) into hands
2. Rub all surfaces of hands or at least 20 seconds including:
   - ❑ Palms
   - ❑ Back of hands
   - ❑ Fingers
   - ❑ Fingernails
   - ❑ Back of fingers
   - ❑ Thumb creases
   - ❑ Top of wrists
3. Allow hands to air dry

How to Hand WASH

Steps

1. Wet hands with water
2. Apply soap and lather
3. Scrub all surfaces of hands for at least 20 seconds including:
   - ❑ Palms
   - ❑ Back of hands
   - ❑ Fingers
   - ❑ Fingernails
   - ❑ Back of fingers
   - ❑ Thumb creases
   - ❑ Top of wrists
4. Rinse hands with water
5. Dry hands with towel
6. Use towel to turn off faucet
7. Discard hand towel

WHEN to perform hand hygiene

Before	After	
❑ Donning PPE	❑ Doffing PPE	❑ Entering a resident room
❑ Touching a resident	❑ Touching a resident	❑ Bodily fluid exposure
❑ Eating	❑ Eating	❑ Handling garbage
❑ Entering or exiting the facility	❑ Entering or exiting the facility	❑ Touching resident surroundings
❑ Touching shared equipment*	❑ Touching shared equipment*	❑ Blowing your nose, coughing or sneezing
❑ Food preparation	❑ Food preparation	❑ Performing a resident care task
❑ Entering a resident room		❑ After toileting
❑ Performing a resident care task		

*Examples of shared equipment: Blood pressure cuffs, thermometers, glucometers, walkers, wheelchairs, shower chairs

Los Angeles County Department of Public Health
publichealth.lacounty.gov/acd/SNF.htm
Hand Hygiene 7.20.22

County of Los Angeles Public Health

6 Steps for Safe and Effective Disinfectant Use

Step 6: Lock it up in a clean, cool, dry, well-ventilated area.

- Keep lids tightly closed and all disinfectants are clearly labeled.
- Document the potential hazards for each chemical, as well as a Safety Data Sheet (SDS) for each cleaning product.
- Store no higher than eye level, and never on the top shelf of a storage area.

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

Survival times of healthcare associated pathogens on environmental surfaces

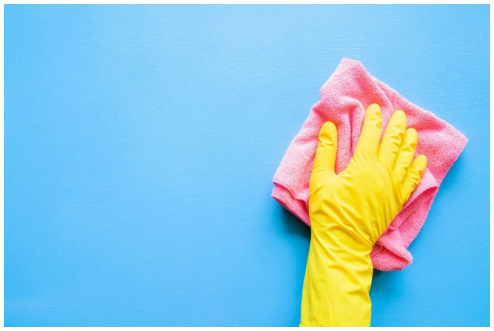
Organisms	Types of environmental surfaces	Survival time
Staphylococcus aureus, including MRSA	Dry inanimate surfaces	7 days to 5 years
Staphylococcus aureus vancomycin-intermediate	Vinyl flooring and smooth surfaces	> 45 days
Enterococcus spp., including VRE	Dry inanimate surfaces	5 days to 5 years
E. coli	Dry inanimate surfaces	1.5hr – 16 months
Candida spp.	Dry inanimate surfaces	3 days> 4 months

https://link.springer.com/article/10.1007/s11908-018-0620-2/tables/1

Routine vs Terminal cleaning

Routine Cleaning

- Takes place in resident care areas and rooms while residents are **in-house**, with emphasis on **reducing contamination** of microorganisms to ensure a visibly clean environment.



Terminal Cleaning

- Takes place in residents' rooms **after discharge or transfer** from the facility. This will include the zone of resident with emphasis on the wider area of the resident. The focus is to **remove** organic matter and to also **eliminate** or outstandingly reduce contamination of microorganisms.

https://www.cdc.gov/hai/pdfs/resource-limited/environmental-cleaning-RLS-H.pdf

Key Strategies for EVS Staff

Key Strategies for EVS Staff

Ensure you have all the right supplies and enough time

For EVS, this means **clean wipes, the right spray, clean cloths**, etc.

- Use signage to ensure you have the right product. Is the contact time appropriate?
- Do not rush – proper cleaning takes time. Determine how much time is needed to complete.
  - Daily (routine) cleaning can take 20-25 minutes per room
  - Terminal cleaning will take *at least* 40-45 minutes per room

Key Strategies for EVS Staff

Perform hand hygiene and don the appropriate personal protective equipment necessary for the task.

Ensure Environmental Cleaning Staff Perform Hand Hygiene

- Emphasize the importance of hand hygiene for all staff in infection prevention
- Change perception that hand hygiene is to protect staff
  - Hand hygiene is to protect the patient
- Orient EVS staff thoroughly to infection control principles and practices prior to starting work in a clinical area

Key Strategies for EVS Staff

Prepare all the supplies you'll need for the room, including:

- Trash bags
- The number of wipes/cloths you'll need for each room
- Generally, you should expect to use a minimum number per room – calculate a standardized number in collaboration with manager(ie.)
- Daily clean: 1 for each bed, 1 for the high touch surfaces in the room, 1 for the bathroom

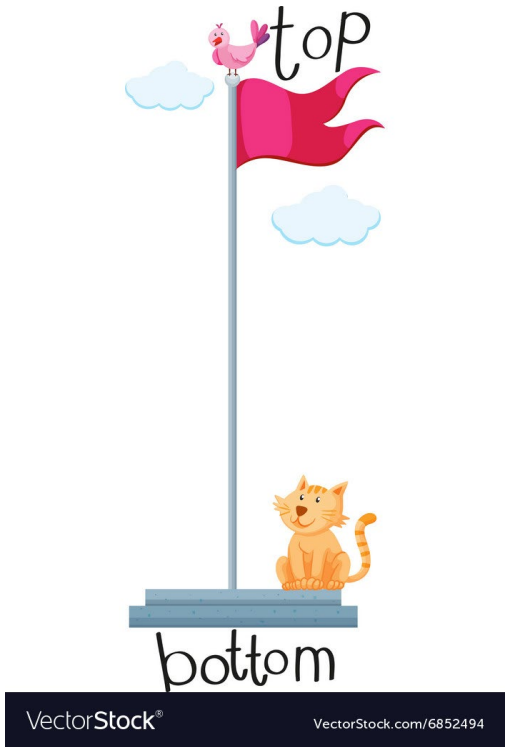
Key Strategies for EVS Staff

Clean- Removing all visible dust, debris, dirt

-Work from top to bottom, clean to dirty

Disinfect-

-Work from top to bottom, clean to dirty (ie. residents' room first, bathroom last)



Key Strategies for EVS Staff

Doff PPE and perform hand hygiene

Key Strategies for EVS Staff

Checklist- ensuring all surface areas and/ or items were covered

Who Cleans What and When?

Facility name: _____ Unit: _____ Update date: _____ Approved by: _____

Area/Device/Equipment	EVS	Frequency	Nursing	Frequency	Other (Specify)	Frequency
Anesthesia equipment and controls						
Bathroom sink						
Bed rail/controls						
Bed table						
Bedside cabinet & other furniture						
Bladder scanner						
Blood pressure cuffs, sphygmomanometer						
Call box, button, and cords						
Computer keyboard						
Computer monitor, keyboard, mouse, cart						
Corridor railing						

(http://publichealth.lacounty.gov/acd/docs/LACDPHWhoCleansWhat_template.docx)

Cleaning Responsibility

- Put individual responsibilities into **policy**
- Assign responsibilities with **checklist**

CDPH

Healthcare-Associated Infections Program

Environmental Cleaning and Disinfection – Responsibility Assessment

Who is responsible for cleaning:	Respondent #1 Title:	Respondent #2 Title:	Respondent #3 Title:
ABHR dispenser			
Bathroom			
Bedrail			
Blood pressure machine			
Call button			
Charting area			
Floor			
Floor, with large spill			

Responsibility checklist from CDPH
(www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/AdherenceMonitoringEVS_ResponsibilityAssessment.pdf)

LTCF Best Practices for Cleaning and Disinfecting

LTCF Best Practices Cleaning and Disinfecting Handout

INFECTION PREVENTION BEST PRACTICES CLEANING & DISINFECTION

1st **Clean**: the physical removal of debris (dust, soil, bodily fluid) using friction, water and detergent.

2nd **Disinfect**: the process of killing germs.

PRODUCT REVIEW

Read the instructions and consider the:

- ❑ **Pathogens** the product is effective against
- ❑ Longest **contact time** on the label
- ❑ **Surfaces** the product can be used on

EPA REGISTRATION

- ❑ Find the EPA registration number on the product
- ❑ Verify that it is listed on EPA's list of approved disinfectants
- ❑ https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants

ROUTINE VERSUS TERMINAL

Routine occurs when the room is occupied.

- ❑ At least once daily
- ❑ Attend to high touch surfaces
- ❑ Remove organic material
- ❑ Reduce contamination

Terminal occurs after the resident is discharged or transferred.

- ❑ Attend to all surfaces
- ❑ Remove organic material
- ❑ Eliminate contamination
- ❑ Discard disposable personal care items

PRODUCT STORAGE

- ❑ Follow the Instructions
- ❑ Designated storage area
- ❑ Above the floor
- ❑ Clearly labeled
- ❑ Accessible to staff

SHARED EQUIPMENT

- ❑ Make an inventory of shared items and equipment
- ❑ Create a schedule indicating how often items should be cleaned and disinfected, and who is responsible
- ❑ Clearly label and store equipment
- ❑ Consider using disposable or dedicated equipment

HIGH TOUCH SURFACES

- ❑ Create a list of high touch surfaces that are specific to your facility
- ❑ Implement a log or checklist that allows staff to sign off on the items they attended to
- ❑ Review the cleaning and disinfection log
- ❑ High touch surfaces may vary throughout the facility (e.g., resident room vs. staff break room).

Examples:

- ❑ Door handles
- ❑ Light switches
- ❑ Shared pens and office supplies
- ❑ Sinks and faucet handles
- ❑ Technology

EVS CARTS

- ❑ Maintain product and equipment stock
- ❑ Create a schedule for cleaning and disinfecting the carts
- ❑ Frequently inspect cleaning equipment and replace as needed

AUDITING

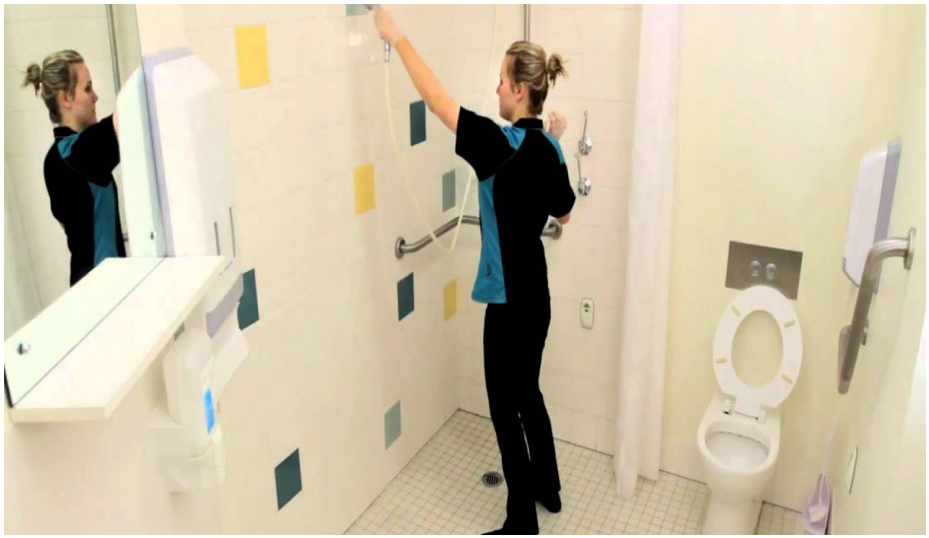
- ❑ Regularly audit for compliance and quality of cleaning and disinfection protocols
- ❑ Use direct observations, visual assessments or fluorescent marker auditing
- ❑ Provide non-punitive feedback to staff

Los Angeles County Department of Public Health
publichealth.lacounty.gov/acd/SNF.htm Cleaning & Disinfection Guidance 4/19/21 English

County of Los Angeles Public Health

Best Practices in Cleaning Resident Environment

- Disinfect bathroom – cleaning and wiping down all areas



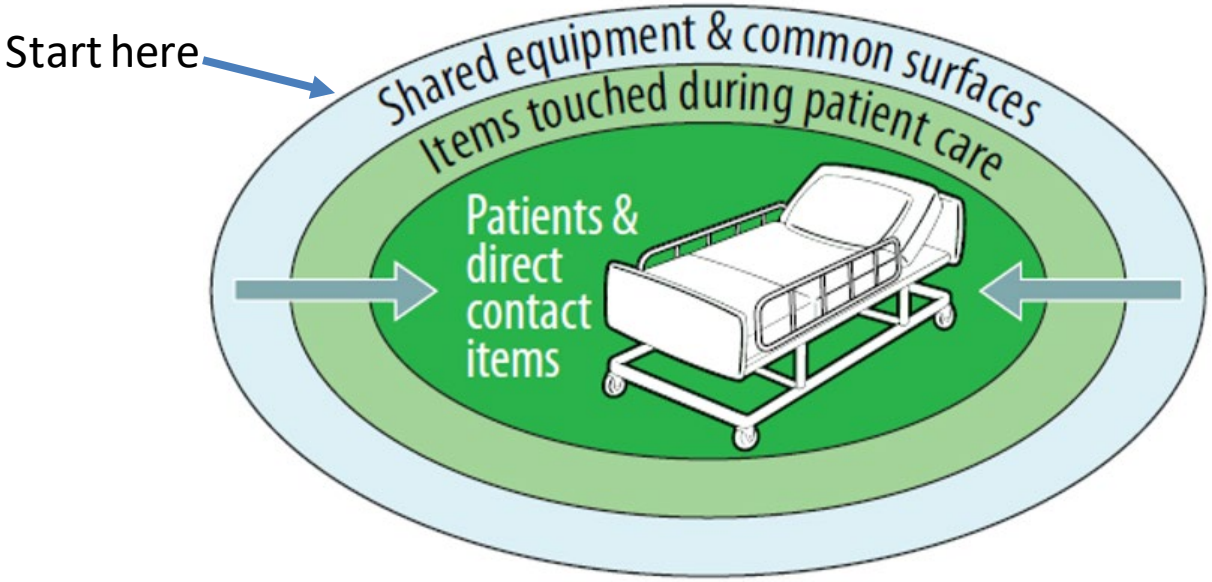
https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

Best Practices in Cleaning Resident Environment

- Disinfect room – wiping "High-Touch" surfaces

https://www.cdc.gov/hai/prevent/resource-limited/cleaning-programs.html

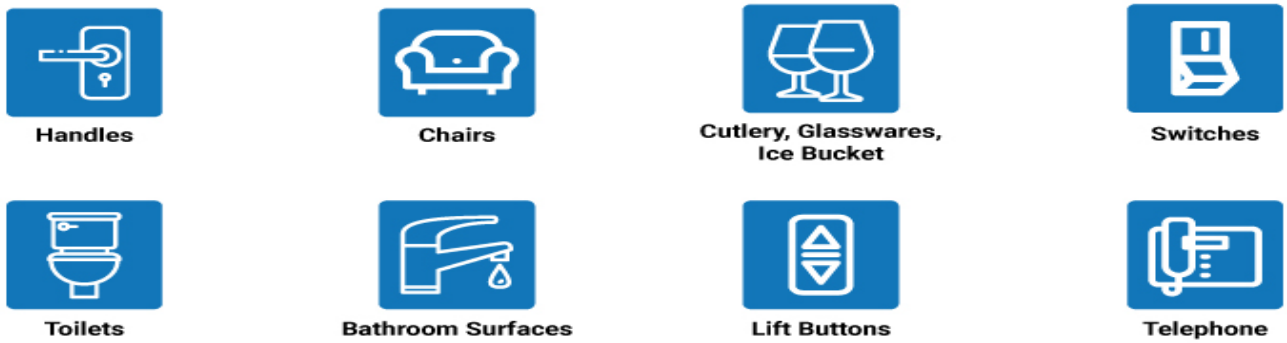
Working From Clean to Dirty



CDC Healthcare-associated Infections: Environmental Cleaning Procedures
(www.cdc.gov/hai/prevent/resource-limited/cleaning-procedures.html)

High Touch Surfaces

High touch surface areas, are areas recognized as a possible reservoir of infectious agents, and contamination of these agents also pose a risk for the spread of MDROs', better known as multi-drug resistant organisms.



(https://www.cdc.gov/hai/pdfs/resource-limited/environmental-cleaning-RLS-H.pdf)

Common gaps identified via LACDPH visits

- EVS staff's lack of knowledge of contact times
- Not having a system for who cleans what (e.g., EVS vs nurses)
- Not evaluating environmental hygiene (e.g., fluorescent marker)
- Not ensuring thorough cleaning/disinfection of all reusable medical equipment/supplies
- EVS staff's lack of knowledge of appropriate concentration for disinfectant used
- Use of non-approved cleaners and disinfectants frequently observed on the floor, EVS carts, nursing stations, etc.

Relevant Adherence Monitoring Tools (1)

- If you want to improve it, you must measure it

CDPH California Department of Public Health

Healthcare-Associated Infections Program Adherence Monitoring
Environmental Cleaning and Disinfection

Assessment completed by:
Date:
Unit:

Regular monitoring with feedback of results to staff can maintain or improve adherence to environmental cleaning practices. Use this tool to identify gaps and opportunities for improvement. Monitoring may be performed in any type of patient care location.

Instructions: Observe at least two (2) different environmental services (EVS) staff members. Observe each practice and check a box if adherent ("Yes") or not adherent ("No"). In the right column, record the total number of "Yes" responses for adherent practices observed and the total number of observations ("Yes" + "No"). Calculate adherence percentage in the last row.

	Environmental Cleaning Practices	EVS Staff 1	EVS Staff 2	EVS Staff 3	Adherence by Task	
					# Yes	# Observed
ES1.	Detergent/disinfectant solution is mixed and stored according to manufacturer's instructions.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES2.	Solution remains in wet contact with surfaces according to manufacturer's instructions.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES3.	Cleaning process avoids contamination of solutions and cleaning tools; a clean cloth is used in each patient area, and the cloth is changed when visibly soiled.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES4.	Standard cleaning protocol is followed to avoid cross-contamination *(e.g. from top to bottom, patient room to bathroom, and clean to dirty)*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES5.	Environmental Services staff use appropriate personal protective equipment *(e.g. Gowns and gloves are used for patients/residents on contact precautions upon entry to the Contact precautions room.)*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES6.	Hand hygiene is performed throughout the cleaning process as needed, including before and after glove use.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES7.	High-touch surfaces* are thoroughly cleaned and disinfected after each patient. *Mark "Yes" if Fluorescent Marker Assessment Tool result is 100%; mark "No" if <100%.*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES8.	There are no visible tears or damage on environmental surfaces or equipment.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		
ES9.	The room is clean, dust free, and uncluttered.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No		

***Examples of high touch surfaces:**

Bed rail	Chair	Room light switch	TV remote	Bathroom door knob/handle	Bathroom sink
Tray table	In-room medical cart	IV pole ("grab area")	Room inner door knob/handle	Bathroom handrail	Bathroom faucet
Side table	Room sink	Call button	In-room cabinet	Bathroom light switch	Toilet flush handle
Side table handle	Room sink faucet	PPE container	In-room computer/keyboard	Toilet seat	Toilet/bedpan cleaner

# of Correct Practice Observed ("# Yes"): _____

Total # Environmental Services Observations ("# Observed"): _____
(Up to 15 Total)
If practice could not be observed (i.e. cell is blank), do not count in total # Observed.

Adherence _____%
(Total "# Yes" ÷ Total "# Observed" x 100)

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Relevant Adherence Monitoring Tools (2)

CDPH California Department of Public Health

Healthcare-Associated Infections Program Adherence Monitoring
Fluorescent Marker Assessment Tool

Assessment completed by:
Date:
Unit:

Regular monitoring with feedback of results to staff can maintain or improve adherence to environmental cleaning practices. Use this tool to identify gaps and opportunities for improvement. Monitoring may be performed in any type of patient care location. Use this tool in addition to the Environmental Cleaning and Disinfection adherence monitoring tool.

Instructions: Discreetly place fluorescent marker on at least ten (10) high touch surfaces in at least two (2) rooms to be cleaned. Use additional forms as needed. Check fluorescently marked high touch surfaces for each room below. After the room has been cleaned, use a black light to view marked areas. Circle "Yes" if the fluorescent marker was removed completely and "No" if any amount of fluorescent marker appears under the black light. Calculate adherence percentage in the last row.				Adherence by Task	
				# Yes	# Marked Areas
Room #:	Time marked with fluorescent marker:		Time to return:		
☐ Bed rail: Yes / No ☐ Tray table: Yes / No ☐ Side table: Yes / No ☐ Side table handle: Yes / No ☐ Chair: Yes / No ☐ In-room medical cart: Yes / No	☐ Room sink: Yes / No ☐ Room sink faucet: Yes / No ☐ Room light switch: Yes / No ☐ IV pole: Yes / No ☐ Call button: Yes / No ☐ PPE Container: Yes / No	☐ TV remote: Yes / No ☐ Room inner door knob/handle: Yes / No ☐ In-room cabinet: Yes / No ☐ In-room computer/keyboard: Yes / No ☐ Bathroom door knob/handle: Yes / No ☐ Bathroom handrail: Yes / No	☐ Bathroom light switch: Yes / No ☐ Toilet seat: Yes / No ☐ Bathroom sink: Yes / No ☐ Bathroom faucet: Yes / No ☐ Toilet flush handle: Yes / No ☐ Toilet / bedpan cleaner: Yes / No		
Room #:	Time marked with fluorescent marker:		Time to return:		
☐ Bed rail: Yes / No ☐ Tray table: Yes / No ☐ Side table: Yes / No ☐ Side table handle: Yes / No ☐ Chair: Yes / No ☐ In-room medical cart: Yes / No	☐ Room sink: Yes / No ☐ Room sink faucet: Yes / No ☐ Room light switch: Yes / No ☐ IV pole: Yes / No ☐ Call button: Yes / No ☐ PPE Container: Yes / No	☐ TV remote: Yes / No ☐ Room inner door knob/handle: Yes / No ☐ In-room cabinet: Yes / No ☐ In-room computer/keyboard: Yes / No ☐ Bathroom door knob/handle: Yes / No ☐ Bathroom handrail: Yes / No	☐ Bathroom light switch: Yes / No ☐ Toilet seat: Yes / No ☐ Bathroom sink: Yes / No ☐ Bathroom faucet: Yes / No ☐ Toilet flush handle: Yes / No ☐ Toilet / bedpan cleaner: Yes / No		
# of Correct Practice Observed ("# Yes"): _____	Total # Marked Areas: (Up to 48 total per form)		Adherence % (Total "# Yes" ÷ "Total # Marked Areas" x 100)		

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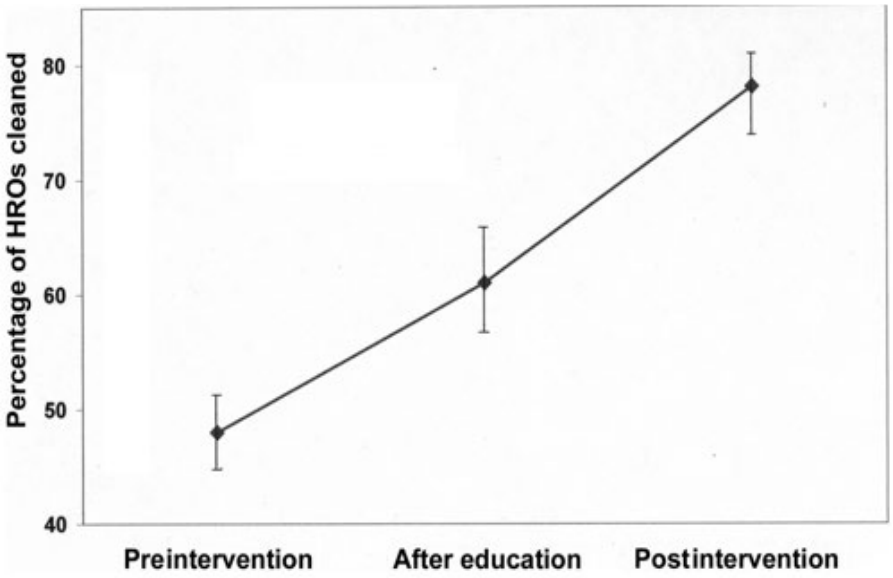
Does Monitoring Improve Cleaning?

- In 36 hospitals, mean percentage of high-risk objects cleaned was
  - 48% **prior** to intervention
  - 78% **after** intervention



Carling, P. (2016) Optimizing Health Care Environmental Hygiene
Infectious Disease Clinics of North America 30(3)
(dx.doi.org/10.1016/j.idc.2016.04.010)

Measure Development

MEASURE DEVELOPMENT FORM

Part I: Identification of Measure

1. What is the Measure?

2. What is the Key Quality Characteristic of this measure?

☐ Accuracy ☐ Appropriateness ☐ Competency ☐ Efficiency
☐ Effectiveness ☐ Equitable ☐ Safety ☐ Timeliness
☐ Other (please describe)

Part II: Operational Definition and Data Collection Plan *(include full definition with any inclusion/exclusions of required data elements). For example patient types, financial class, DRG, diagnosis or procedure codes or charge codes)*

3. Operational Definition

Numerator

Denominator

4. Data Collection Plan:

Person(s) responsible for data collection and frequency of collection

Data Source(s)

Data collection method ☐ *Computerized* ☐ *Manual* ☐ *Sampling*

If data collection requires sampling, include the sampling plan

http://publichealth.lacounty.gov/acd/TNTProgram.htm
http://publichealth.lacounty.gov/acd/docs/TNT_MeasureDevelopmentForm.docx

UNIT 2 Hand Hygiene QAPI Project

A3 Project Title

Project Lead:
Facilitator:
Project Champion(s):

COORDINATION

Project Team:

Date Updated:

1) Problem Statement: (description of the problem and its effect)

2) Current State: (depiction of the current state, its processes, and problems)

Best Practices/Literature Search:

3) Goal: (how will we know the project is successful; standard/basis for comparison)

PLAN

4) Root Cause Analysis: (investigation depicting the problems' root causes)

5) Solutions: (action plans and findings of tested solutions)

Root Cause	Tested Solution	Responsible	Due	Finding

DO

6) Check: (summary of the solutions' results, overall goal success, and any supporting metrics)

Goals and Metrics	Baseline	Target	Current
Goal			
Supporting Metric			
Supporting Metric			

CHECK

7) Act: (action taken as a result of the Check, and a plan to sustain results)

1.
2.
3.

ACT

Unit 2 Hand Hygiene QAPI Project – Solution

A3 Project Title

Project Lead: Infection Preventionist or SNF Leader
Facilitator: Infection Preventionist or SNF Leader
Project Champion(s): EVS Manager, IP, DON, DSD, Laundry Manager
Project Team: IP, Admin, DSD, Dietary Manager, Laundry Manager, Purchasing Director

Date Updated: 10/26/22

1) Problem Statement: (description of the problem and its effect)

Staff are not performing adequate hand hygiene.
Inadequate hand hygiene leads to increased HAIs.

2) Current State: **Staff interviews and/or process mapping revealed:**

- ABHS is not accessible
- ABHS makes my hands dry
- I don't know the process of HH

Best Practices/Literature Search:

3) Goal: (how will we know the project is successful; standard/basis for comparison)

Increase CNA HH monthly adherence rates by 20% from baseline by January 31st, 2023.

4) Root Cause Analysis: (investigation depicting the problems' root causes)

We found that orientation training is not standardized in a fashion that allows other staff members besides the IP or DSD (who are out sick) to complete new registry orientation.

5) Solutions: (action plans and findings of tested solutions)

Root Cause	Tested Solution	Responsible	Due	Finding

6) Check: (summary of the solutions' results, overall goal success, and any supporting metrics)

Goals and Metrics	Baseline	Target	Current
Goal			
Supporting Metric			
Supporting Metric			

7) Act: (action taken as a result of the Check, and a plan to sustain results)

1.
2.
3.

Root Cause Analysis: 5 Whys for low hand hygiene adherence

Why?
- Because "I wasn't trained."

Keep asking why!

Why?

- Because the person is registry staff and did not receive training.

Why?

- Because the registry did not train the staff member.

Why?

- Because the registry thought the facility will train the registry staff member.

Why?

- Because the registry has correspondence from the facility that the registry staff member will be trained there.

Why?

- Because the facility is understaffed and could not train the registry staff member.

Why?

- Because multiple staff members are out sick because of COVID-19 and many are caring for the residents with COVID-19.

Why?

- Because there is no replacement for the people doing the training when they are out.

Why?

- Because the training is not standardized so that more than one person can do it.

Hand hygiene was not performed because of miscommunication and lack of standardized training.

Solution

Root Cause	Tested Solution	Responsible	Do	Finding
Facility orientation failed to prepare registry staff with HH education and training when IP and DSD are off work	Train house supervisors to provide registry orientation RE: Hand Hygiene, WHO- 5 moments of HH	DSD		
Registry leadership believed facility was responsible for providing HH training as not included in contract	Edit contract, clarifying responsibility of facility to provide HH education	NHA / Registry leadership		
Current registry staff are not trained	Provide training and education for registry staff that are currently employed in the facility, aligning with current staff education	DSD and Supervisor		

Prioritization Matrix

	High impact	Lower impact
Easy to do	- Train house supervisors to provide registry orientation RE: Hand Hygiene, WHO- 5 moments of HH - Provide training and education for registry staff that are currently employed in the facility, aligning with current staff education	
Difficult to do	- Edit contract, clarifying responsibility of facility to provide HH education	

Solution

Root Cause	Tested Solution	Responsible	Do	Finding
Facility orientation failed to prepare registry staff with HH education and training when IP and DSD are off work	Train house supervisors to provide registry orientation RE: Hand Hygiene, WHO- 5 moments of HH	DSD	11/24/22	Log implemented showing all registry staff have received training and education.
Registry leadership believed facility was responsible for providing HH training as not included in contract	Edit contract, clarifying responsibility of facility to provide HH education	NHA / Registry leadership	12/15/22	New contract written and executed. Facility leadership educated on facility's responsibility to provide registry education RE: HH
Current registry staff are not trained	Provide training and education for registry staff that are currently employed in the facility, aligning with current staff education	DSD and Supervisor	11/11/22	All current registry staff in serviced on 11/8/22.

Check

Goals & Metrics	Baseline	Target	Current
Goal			
Supporting Metric			
Supporting Metric			

Acknowledgements

- "The IP as an Educator" presented by Cynthia Dorroh, EdD, MSN, RN, PHN, CIC at LAC DPH's *Basics of Infection Prevention 2-Day Mini-Course.* November 1, 2022.

Resources

- CDC Healthcare-associated Infections: Environmental Cleaning Procedures
- http://publichealth.lacounty.gov/acd/TNTProgram.htm
- http://publichealth.lacounty.gov/acd/docs/TNT_MeasureDevelopmentForm.docx
- (www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/AdherenceMonitoringEVS_ResponsibilityAssessment.pdf)
- https://m.youtube.com/watch?v=bultzMc0GAw
- (http://publichealth.lacounty.gov/acd/docs/LACDPHWhoCleansWhat_template.docxhttps://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/AdherenceMonitoring_EVS_Approved_013020.pdf

Questions