

# Infection Prevention *and* - Environmental Service Department -



*Teaming up Against Health Care Associated Infections (HAI)*

**Presented By: Mamta Desai, BS, MBA, CIC**  
**Director of Infection Prevention**

# Objectives

- Describe the role of the environment in transmitting infections
- Discuss strategies to ensure effectiveness of cleaning and disinfection
- Discuss available resources for EVS staff education
- Discuss EVS role in preventing HAIs

# Contaminated Environmental Surface Leading to Patient Infection

1. Surface becomes contaminated by contact or droplet spread
2. Organism must survive on the surface
3. Surface must be touch by another person who picks up sufficient inoculum
4. Person must omit or poorly perform hand hygiene
5. Person must transmit the organisms to another person or object in sufficient quantity to cause disease

*Ref: The Inanimate Environment., Bennett & Brachman's Hospital Infections 6<sup>th</sup> Ed. 2014*  
*Chou. APIC Text of Infection Control & Epidemiology. 2013*  
*HICPAC/CDC Isolation Guidelines. 2007*

# Evidence of Environment Playing a Role in Disease Transmission

1. Admission to a room previously occupied by a colonized or infected patient is a significant risk factor for infection
2. *C. difficile* acquisition
  - 11% patient admitted to an ICU room previously occupied by a CDI patient developed CDI
  - 4.6% patients admitted to a room without a prior CDI positive occupant developed CDI

[http://www.idse.net/download/HAI\\_IDSE13\\_WM.pdf](http://www.idse.net/download/HAI_IDSE13_WM.pdf)

Weber DJ et.al. AJIC 2013

Shaughnessy et al. Infect Contr Hosp Epidemiol. 2011

# How to reduce Environmental Bioburden

- Clean and disinfect high-touch surfaces daily
- Improve cleaning and disinfection of rooms after discharge of patients
  - Isolation
  - All rooms
- Clean and disinfect portable equipment

# Cleaning Policy Considerations

- Include in policy the surfaces and equipment that can be reasonably expected to be contaminated by bacteria (high touch surfaces)
  - Bedrail
  - Call bell
  - Light switches
  - Doorknobs
  - TV remote
  - IV pump
  - Toilet, commode chair
  - IV poles
  - Computer keyboard
  - Telephone
  - Over bed table
  - Respiratory and other bedside equipment
  - Chairs
- Define responsibility and frequency for cleaning and disinfecting patient care equipment and surface

# Sample Policy

## INFECTION CONTROL POLICY C-14

### Appendix A

Sample Monitoring Tool

EQUIPMENT	FREQUENCY	RESPONSIBILITY
<b>Patient Care Room Furniture (Includes but is not limited to)</b>		
Bed - All	After discharge	EVS
Bed - Rails/footboards	Daily when in use	EVS
Bed - Specialty -owned by PVHMC	After each use	EVS
Bed - Specialty (KCI and Magnum-owned by PVHMC)	Daily when in use/After each use	Cleaned by vendor through Storage and Distribution
Crib	Daily when in use/+After each use	Occupied - User Discharge - EVS
Bassinet	Daily when in use/ After each use	Occupied - User Discharge - EVS
Gurney	After each use	Occupied - User Discharge - EVS
Overbed Table	Daily when in use/After each use	Occupied - User Discharge - EVS
Bedside Table/Cabinet	Daily	EVS
Chair(s)	Daily	EVS
Telephone/Call Light/TV/Door Knobs	Daily	EVS
<b>Patient Care Cubicles (ED/PACU)</b>		
Bed	After each use	Occupied - User
Gurney	After each use	Occupied - User
Baby Warmer	After each use	Occupied - User
Bassinet	After each use	Occupied - User
<b>Patient Care Cubicles (NICU)</b>		
Isolette	Daily when in use/After each use	Occupied - User Discharge - NICU Storeroom
Baby Warmer	Daily when in use/After each use	Occupied - User Discharge - NICU Storeroom
Bassinet	Daily when in use/After each use	Occupied - User Discharge - NICU Storeroom
Auto Syringe Pumps	Daily when in use/After each use	Occupied - User Discharge - EVS
Bed - Occupied	Daily and as needed	Occupied - User
Bedside Commodes (Portable)	At time of discharge	EVS
Bedside Commodes (Portable) - Seat	After each use	Nursing
Blanket Warmer - Inside	Daily	User
Blanket Warmer - Outside	Daily	EVS
Blood Pressure Cuffs/Meters	After each use	User
BP Machine (Portable)	After each use	Nursing
BP Machine (Portable) - Pole/wheels	Weekly	EVS

# Cleaning Before Disinfection

- Cleaning removes large numbers of microorganisms from a surface that would otherwise interfere with the disinfection process
- Disinfectant are not as effective in the presence of organic material

***Important: A thorough cleaning must occur before a surface can be disinfected.***

***HICPAC/CDC 2008***



# Detergent and Disinfectants

- **Detergents**
  - Used for cleaning
  - Contains surfactants; lift dirt
  - Can become easily contaminated, does not kill microorganism
  - Less toxic, generally less odor, less costly than disinfectant
- **Disinfectant**
  - Inhibit growth or kill microorganisms
  - More toxic, more costly than detergent

***Ref: APIC Text of Infection Control and Epidemiology, 2013***

# EPA Label Claim for Disinfectant

- The EPA label claim states if the product is
  - Virucidal
  - Bactericidal
  - Tuberculosis
  - Fungicidal
  - Sporocidal
- Clarifies manufacture's instruction for use (IFU), including wet/contact/dwell time required to achieve the desired degree of microbial killing

<https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>

# Importance of Wet/Contact Time

- Wet/Contact time is the time required for a disinfectant to kill microorganisms on a pre-cleaned surface
- Disinfectant must remain wet long enough to achieve the claimed level of surface disinfection
- Follow manufacturer's guidelines for achieving the appropriate wet/contact time

Rutala et al.ICHE.2014

# Selection of Disinfectant

Disinfectant	Strengths	Concerns
<b>Quaternary Ammonium Products (Quats)</b>	<ul style="list-style-type: none"> <li>• Widely used</li> <li>• Bactericidal, fungicidal, virucidal</li> <li>• Hospital-grade quats tuberculocidal</li> <li>• Safe for computer keyboards</li> </ul>	<ul style="list-style-type: none"> <li>• Hard water can reduce effectiveness</li> <li>• Generally not sporicidal</li> <li>• Occupational asthma documented</li> </ul>
<b>Phenolics</b>	<ul style="list-style-type: none"> <li>• Bactericidal, virucidal, fungicidal, tuberculocidal</li> <li>• Not sporicidal</li> </ul>	<ul style="list-style-type: none"> <li>• Absorbed by porous materials</li> <li>• Can irritate tissue</li> <li>• Unsafe for use in nurseries</li> </ul>
<b>Chlorine-based</b>	<ul style="list-style-type: none"> <li>• Broad antimicrobial activity</li> <li>• Does not leave toxic residues</li> <li>• Inexpensive</li> <li>• Fast acting</li> <li>• Removes dried organisms, biofilms</li> </ul>	<ul style="list-style-type: none"> <li>• Can cause eye irritation, gastric burns</li> <li>• Inactivated by organic matter</li> <li>• Discolors fabrics</li> <li>• Wet contact time 10 minutes</li> <li>• Corrosive in high concentrations</li> <li>• Can release toxic chlorine gas when mixed with ammonia</li> </ul>
<b>Hydrogen peroxide, Accelerated H<sub>2</sub>O<sub>2</sub></b>	<ul style="list-style-type: none"> <li>• Effective</li> <li>• Bactericidal, virucidal at 30- 60 sec</li> <li>• Fungicidal at 10 min</li> <li>• Low EPA toxicity rating</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive</li> </ul>

**Consider duration of contact time**

# Why Sporocidal Agent for C. difficile?

- C. difficile spores are difficult to kill and adheres to environmental surfaces for extended periods

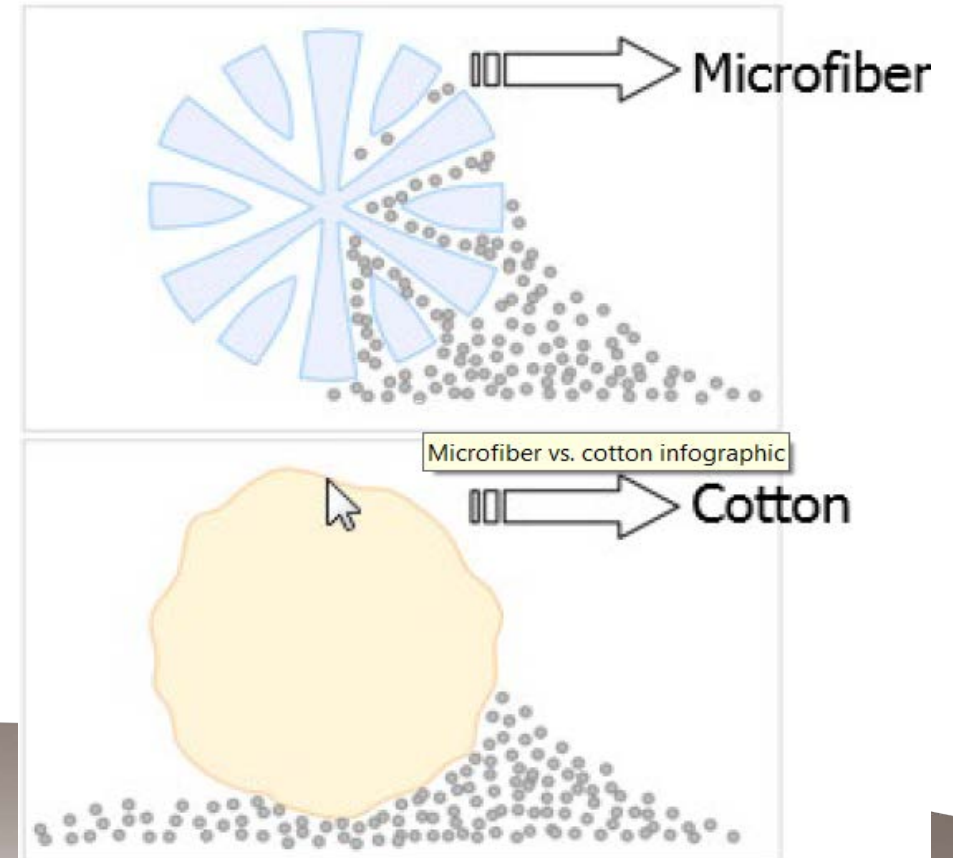


The screenshot shows the EPA website header with the logo and navigation links: Environmental Topics, Laws & Regulations, and About EPA. A search bar is present with the text "Search EPA.gov". Below the header, the "Pesticide Registration" section is highlighted, with a "CONTACT US" link and social media icons for Facebook, Twitter, Pinterest, and Email. The main content area features a sidebar with links: "Pesticide Registration Home", "About Pesticide Registration", "Electronic Submission of Applications", and "Pesticide Registration Manual". The main heading reads "LIST K: EPA's Registered Antimicrobial Products Effective against Clostridium difficile Spores".

<https://www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium>

# Microfiber vs. Cotton

- Microfiber comprised of densely constructed synthetic strands
- Microfiber cleans 50% better than comparable cotton
  - Attracts dust
  - Easier to use, lighter
  - Designed for repeat use



# Cleaning Porous Surfaces

- Fabrics
  - Vacuum regularly and re-cover when torn
  - Organic material and excess liquid should be extracted as much as possible
- Carpets
  - Steam cleaning is recommended for as appropriate
  - Allow to dry for up to 72 hours to prevent fungi growth

# Privacy Curtains

- Bacteria and fungi can survive on polyester, cotton, wool and other fabrics
- Privacy curtains are considered high-touch surfaces and can become rapidly contaminated especially when in isolation rooms
- Hands can become contaminated after handling curtains
  - Study found 50% of hands contaminated after handling curtains

Oh et.al Am J Infect Control. 2012

Koca st.al. Eurasian J Med. 2012



# Best Practices for Cleaning a Room

- Certified Healthcare Environmental Services Technicians (CHEST) Certification
- STRIVE (CDC, AHE and APIC collaboration)
- CDPH
- CDC Guidelines

CDC/APIC  
STRIVE Program  
for EVS



Frontline Training Program



# About CHEST

- The Certified Healthcare Environmental Services Technician (CHEST) program offers a new certification for Environmental Services frontline workers.
- It is a comprehensive, healthcare specific, **best practice** referenced training program for supervisors and the frontline staff
- **CHEST** is built on an innovative “Train-the-Trainer” model. Healthcare facilities can choose to train one or more of their staff through AHE to deliver the **CHEST** certification program directly in their hospitals.

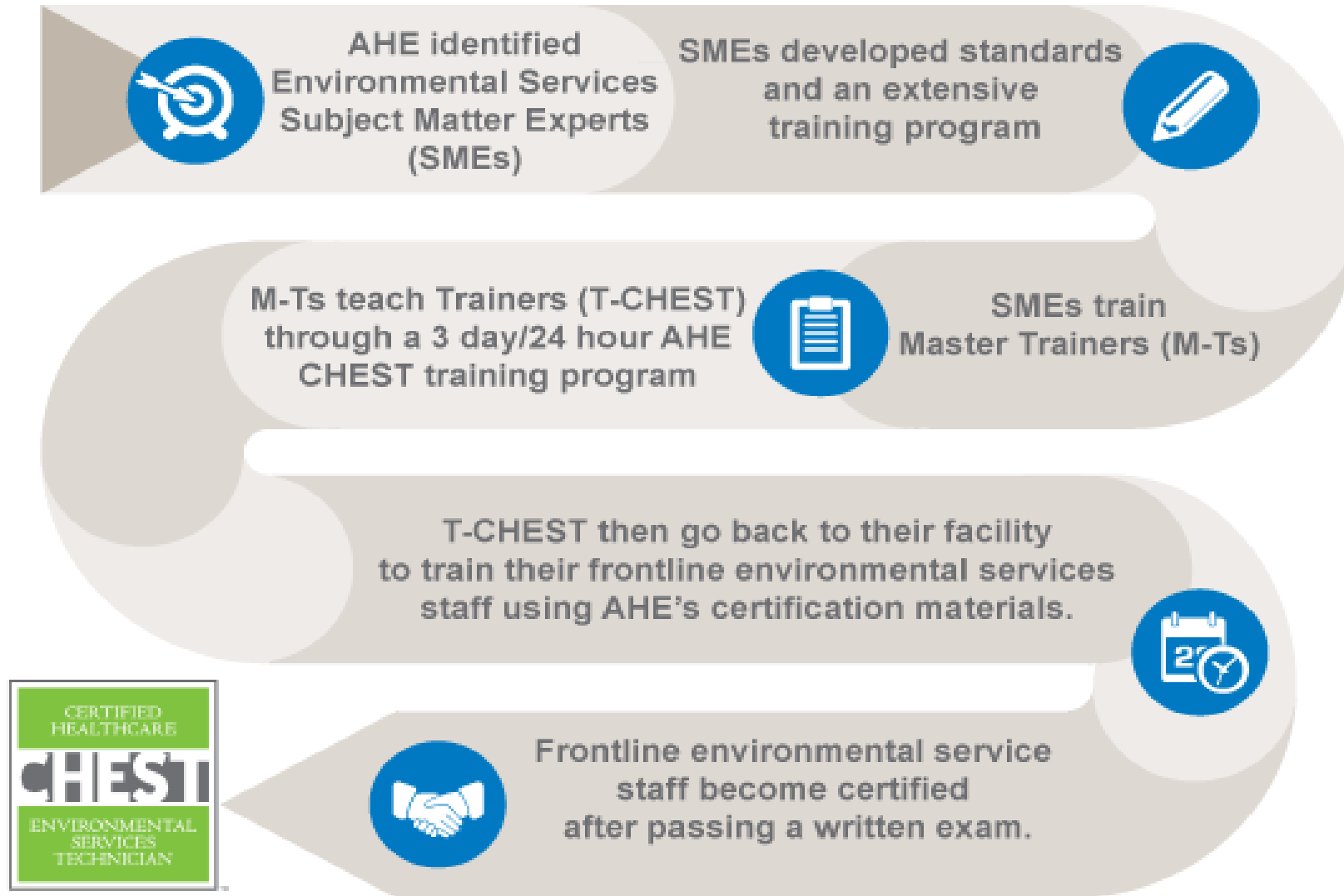


# PVHMC Plan and Phased Approach

1. First Phase:
  - ✓ EVS Management T-CHEST, certified Trainers
2. Second Phase:
  - ✓ EVS Leads
3. Third Phase:
  - ✓ All Relief Leads
4. Final Phase:
  - ✓ Key EVS Associates
  - ✓ Continued Education (CEU's)



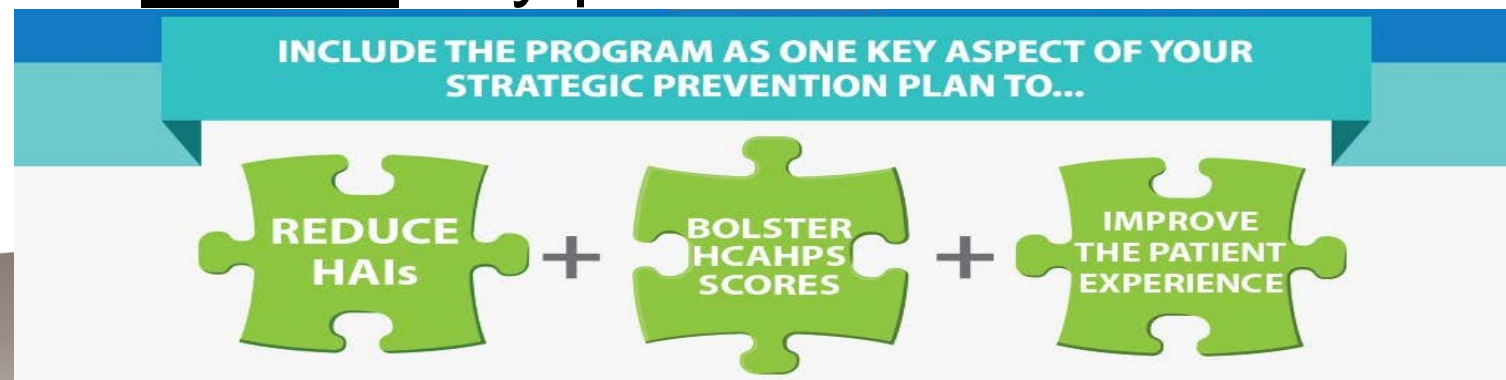
# Train the Trainer Model:



# Why CHEST?



- Achieve quality outcomes
  - ✓ Reduce HAIs
  - ✓ Higher HCAHPS rating
  - ✓ Improve medical reimbursements
- CHEST program validates competency of Environmental Services Technicians
- Technicians not only learn the proper way to perform their duties, they also learn **“why”** they perform it.



# CHEST Training Methods:

## Utilizes a variety of media:

- Video
- PowerPoint presentations
- Class activities and participation:
  - Study guides
  - Q & A / Chapter reviews
  - Real-world scenarios and examples
  - Games

*All designed to help engage participants, help them retain information, improve on-the-job performance and heighten awareness.*



# Program/Certification Aspects:

- The program covers all aspects of a frontline worker's typical tasks and accountabilities.
- Environmental Service Technicians must complete the required training hours.
- Environmental services technicians must pass a written assessment (Exam) to earn the CHEST title.



# CHEST Program Sections:

- **Infection Prevention**
- **Cleaning and Disinfection of all areas**
- **Environmental Services Equipment and Supplies**
- **Working Safely and Responsibly**
- **Basic Floor Care and Maintenance**
- **Environmental Monitoring and Quality Control**
- **Waste Removal**
- **Linen/Laundry Handling**
- **Multi-cultural Differences/Ethical Decision-Making**
- **Effective Communication and the Patient Experience of Care**





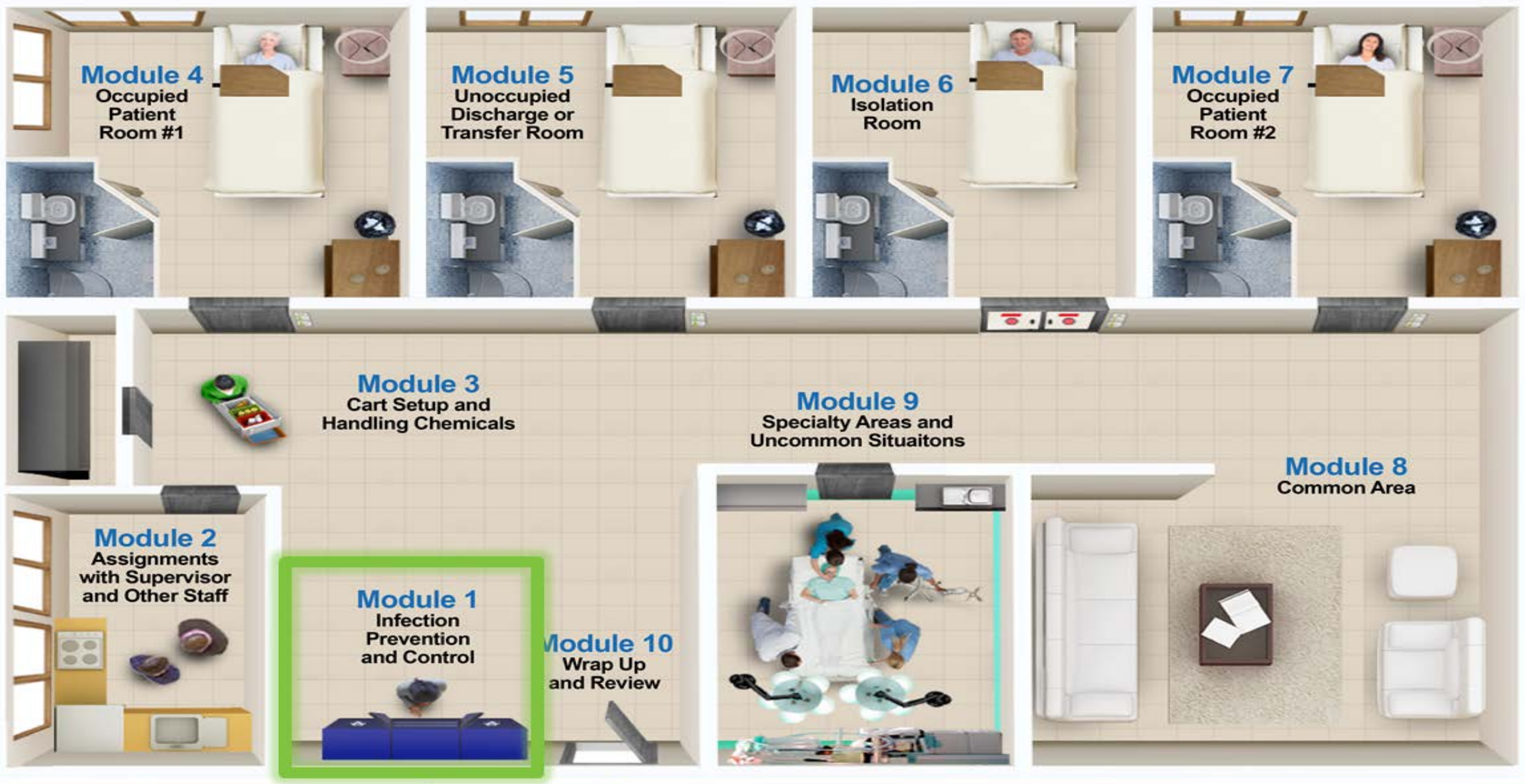
# Program Components:

The program covers seven domains.

DOMAINS	<b>CONTENT</b>
	20% Cleaning and Disinfection
	10% Waste Handling
	5% Floor Care
	10% Linen Handling
	20% Infection Prevention
	15% Safety
	20% Communication

Domains are taught in 10 modules.

<b>MODULES</b>	
Infection Prevention and Control	4.0 hours
Assignments with Supervisor and Other Staff	1.5 hours
Cart Set-up and Handling Chemicals	2.5 hours
Occupied Room #1	2.0 hours
Unoccupied Discharge or Transfer Room	1.5 hours
Isolation Room	2.0 hours
Occupied Patient Room #2	1.75 hours
Common Area	2.0 hours
Specialty Areas, Uncommon Situations	2.0 hours
Wrap up and Review	2.0 hours
Additional Practice	1.5 - 2 hours



# Certified Healthcare Environmental Services Technician

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Expert care with a personal touch

# Program Focus: Infection Prevention & Control



## 1. Chain of infection/breaking chain

- 6 links

## 2. Behaviors to control/prevent infection

- Know pathogen
- Proper cleaning/chemical/tool/disinfection process-dwell time
- Proper PPE
- Sneeze/Cough etiquette
- Hand Hygiene

## 3. Cleaning vs. Disinfecting

- Disinfection classifications

## 4. Standardized cleaning process:

- Clean clock/counterclock
- Clean to dirty
- Clean top to bottom
- Unidirectional wiping

## 5. PPEs:

- Donning & Doffing

## 6. Standard precautions

## 7. Transmission based precautions

# Cleaning vs. disinfecting

## Cleaning

- The removal of material like dust, soil, blood, and bodily fluid.
- Physically removes rather than kills microorganisms. Accomplished with water, detergents, and mechanical action.
- Always essential prior to disinfection or sterilization.
- A surface that has not been cleaned effectively cannot be properly disinfected or sterilized.

## Disinfecting

- The inactivation of pathogens.
- Usually involves chemicals, heat, or ultraviolet light.
- Sterilization destroys microbial life including bacteria, viruses, spores, and fungi and is not performed by environmental services.
- The most common disinfectants used are quaternary ammonium compound products, hydrogen peroxide-based products, and sodium hypochlorite (bleach).



# Putting on PPE





# Taking off PPE



# Benefits:

## Frontline Environmental Services Staff

- Increased professionalism
- Engaged environmental services staff
- Improved Department morale and respect

## Department/Facility

- Improved interdepartmental communication
- Earned credential recognized by the American Hospital Association
- Ability to perform and compete at the highest level for environmental services jobs

## Patients

- Greater satisfaction
- Better experience of care
- Improved outcomes



# STRIVE: Environmental Services Training Modules and Tools

- Module 1

## Module 1: Basic Principles of Infection Control for EVS Technicians

This module defines what an infection is, reviews the chain of infection, and discusses how important environmental cleaning is to break the chain of infection.

### Tools and Resources *In English and Spanish*

- A ready-to-use presentation for trainers [English](#) | [Spanish](#)
- Learners' version in PowerPoint format [English](#) | [Spanish](#)
- Presentation facilitator notes and guidelines for trainers, for use in live sessions [English](#)
- Narrated audio version of the presentation [English](#) | [Spanish](#)
- Flashcards [English](#) | [Spanish](#)
- Infographics [English](#) | [Spanish](#)
- Checklists for discharge and daily cleaning inspection processes
  - Discharge Inspection [English](#) | [Spanish](#)
  - Daily Cleaning Inspection [English](#) | [Spanish](#)

<https://apic.org/Resources/Topic-specific-infection-prevention/Environmental-services>



# STRIVE: Environmental Services Training Modules and Tools

- Module 2

## **Module 2: PPE and EVS: Keeping EVS Team Members, Patients, and Caregivers Safe**

This module provides information on what basic personal protective equipment (PPE) is, how to don and doff it, and when and how to use it during routine EVS activities.

### **Tools and Resources** *In English and Spanish*

- A ready-to-use presentation in PowerPoint format [English](#) | [Spanish](#)
- Narrated audio version of the presentation [English](#) | [Spanish](#)
- Flashcards [English](#) | [Spanish](#)
- Infographics depicting “Do’s and Don’ts” of glove use [English](#) | [Spanish](#)
- Checklist for donning and doffing PPE and fit-checking respirator [English](#) | [Spanish](#)

<https://apic.org/Resources/Topic-specific-infection-prevention/Environmental-services>

# STRIVE: Environmental Services Training Modules and Tools

- Module 3

## **Module 3: Chemical Safety for EVS**

This module covers safety practices EVS personnel should follow to protect themselves, other staff, patients, and visitors when using chemical disinfectants.

### **Tools and Resources** *In English and Spanish*

- A ready-to-use presentation in PowerPoint format [English](#) | [Spanish](#)
- Narrated audio version of the presentation [English](#) | [Spanish](#)
- Flashcards [English](#) | [Spanish](#)
- Short PowerPoint on hazard symbols [English](#) | [Spanish](#)
- Checklist for setting up an EVS cart to support best safety practices [English](#) | [Spanish](#)

*<https://apic.org/Resources/Topic-specific-infection-prevention/Environmental-services>*

# STRIVE: Environmental Services Training Modules and Tools

- Module 4

## **Module 4: Surface Cleaning and Disinfection Procedures and Techniques in EVS**

This module covers best practices for cleaning and low-level disinfection of environmental surfaces in occupied patients rooms and at the time of patient discharge or transfer, as well as how to evaluate adequate cleaning.

### **Tools and Resources** *In English and Spanish*

- A ready-to-use presentation in PowerPoint format [English](#) | [Spanish](#)
- Narrated audio version of the presentation [English](#) | [Spanish](#)
- Flashcards [English](#) | [Spanish](#)
- Infographic on cleaning occupied rooms [English](#) | [Spanish](#)
- Checklists for monitoring room cleanliness using ATP technology and UV light inspection
  - ATP Technology [English](#) | [Spanish](#)
  - UV Light Inspection [English](#) | [Spanish](#)

<https://apic.org/Resources/Topic-specific-infection-prevention/Environmental-services>

# Emerging Cleaning Technologies

# Non Touch Disinfection Technologies

- Developed because manual cleaning and disinfection is often suboptimal
- Provides a higher level of disinfection
- Must collaborate with Nursing, Safety, EVS and IP
- Effective in stopping CDI outbreaks
- Options
  - Hydrogen Peroxide fogging (Dry mist or vapor)
  - Ultraviolet light (Continuous emitting or pulse xenon )

# Caveats to Non Touch Disinfection Technologies

- Process takes time
  - Room turnover may be delayed
- Room must be thoroughly cleaned prior to use fo non touch technology
  - Technology is ineffective in the presence of organic matter
- Special training/competency
- Consider safety/exposure
  - Special PPE may be needed

# Enhancement to Terminal Disinfection:

- Added UV disinfecting technology
  - \*\* In addition to routine discharge cleaning/disinfecting\*\***
- Effective against C. difficile spores
  - All ICU rooms
  - All isolation rooms



# Effective Cleaning and Disinfection Program



# How Do you know a Patient Room is Clean?

- Appears visually clean or finger-swipe clean
  - Fast and inexpensive, but lacks objectivity
- Confirmed via technology
  - Increasingly becoming the community standard

## Fluorescence

Environmentally stable marker is visible to UV light if still present after cleaning

- Great visual tool



## Adenosine Triphosphate (ATP) monitoring

Measure residual organic matter left on a surface after cleaning

- Set benchmark



# Monitoring Cleaning

	Comparison of Methods		
	Visual	Fluorescence	ATP
1. What is measured?	impression of cleanliness	whether fluorescent residual has been removed	biological matter remaining on surface after cleaning
2. Can it be used by persons of differing skill levels?	no technical training required	some technical training needed	some technical training needed
3. How objective is the method? (Can results be changed to appear more positive?)	can be subjective	objective, but marks could have been removed prior to reading	very objective
4. Can the amount of time spent on monitoring be minimized?	yes	room must be pre-marked and read after cleaning	yes

# Monitoring Cleaning (continued)

Comparison of Methods			
Method	Visual	Fluorescence	ATP
5. How are results presented?	pass/fail	pass/fail	numeric value
6. Is software needed for the monitoring process?	no	can be used, but not required	yes
7. How well can it be used for a training tool?	results immediate with visual cues	results immediate with visual cues	results delayed, no visual cues usually available from surface
8. How affordable is the method?	no monetary investment	materials inexpensive; if formal program including staff education purchased, expenses will be higher	cost of machine and swabs is substantial

# Measuring Effectiveness

<b>Plan</b>	Maintain High Cleaning Effectiveness, which assists with HAI Reductions.												
<b>Design</b> Define / Background Numerator/Denominator. What data will be collected? How will the data be collected, tabulated, and documented?	<b>Required by Title 22 and The Joint Commission.</b> Maintain high cleaning effectiveness through education, training, process changes, staffing, technology and other means, which also assists with HAI reduction. Data will be collected to measure desired results of PI indicator. Data includes: ATP testing of high touch surfaces (HTS) is monitored from reports provided from 3M software using Relative Light Units (RLU). <b>Numerator:</b> Total levels of HTS below 250 RLU. <b>Denominator:</b> Total number of HTS inspected each month.												
ATP testing of HTS Results	1st Qtr 2019			2 <sup>nd</sup> Qtr 2019			3 <sup>rd</sup> Qtr 2019			4 <sup>th</sup> Qtr 2019			YTD
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Goal: ≥ 90%</b>	98.4%	97.8%	97.1%	96.2%	98.0%	95.3%	96.1%	98.7%	98.0%				<b>97.4%</b>
Numerator	2224	2295	2976	2019	2546	1016	892	915	1834				<b>16717</b>
Denominator	2261	2346	3064	2098	2597	1066	928	927	1872				<b>17159</b>
<b>Assess</b> Overall judgment of the situation? Goal met or not met? Common causes of deviation and evaluation the process.	1st QTR - Goal met. All failed tests were retested and passed after cleaning to assure a passing score. 1st QTR exceeds the goal. The analyses showed that the top 2 items that failed the most were blood pressure cuff and nurse call. The blood pressure cuff was also the highest fail for 2018. EVS used the UV light in isolation rooms post discharge/transfer clean a total of 829 for January, 767 for February, and 878 for March. This includes ED isolation rooms, which make up a large portion of the total. 2nd QTR - Goal met. All failed tests were retested and passed after cleaning to assure a passing score. Scores remained consistent except for June, which had a slight dip. The analyses showed that the top 2 items that failed the most in the quarter were blood pressure cuffs and nurse call. EVS used the UV light in isolation rooms post discharge/transfer clean a total of for April, for March, and for June. The Luminator was under repair for part of the month, which resulted in less tests. 3rd QTR - Goal met. All failed tests were retested and passed after cleaning to assure a passing score. Scores remained consistent except for July, which had a slight dip. The analyses showed that the top 2 items that failed the most in the quarter were blood pressure cuffs and nurse call. The Luminator was under repair for part of the quarter, the months of July and August, which resulted in less tests.												
<b>Improve</b> How process improved. Necessary future actions to resolve or follow-up on this issue? Detailed corrective action plan.	1st QTR - EVS Supervisors are in place for all shifts. EVS Supervisors have been oriented to frequent unit rounding that includes visual cleaning checks, hand hygiene, and AIDET observations of staff. EVS Leads also do daily inspection reports. EVS will continue to share information regarding highest fail surfaces, specifically on overbed tables and blood pressure cuffs. We will continue to discuss at EVS start-up meetings and monthly staff meetings for engagement with EVS Associates on how to improve cleaning on these highest fail rate surfaces. 2nd QTR - EVS will continue to share information regarding highest fail surfaces, specifically nurse call and blood pressure cuffs. The Luminator was under repair for part of the month, which resulted in less tests. 3rd QTR - EVS will continue to share information with EVS Associates regarding highest fail surfaces, specifically nurse call and blood pressure cuffs and will look at ways to emphasize the cleaning of these items to get better compliance. We will be putting in a capital budget request for a 2nd luminator in 2020.												

# Sample Monitoring Tool

**CDC Environmental Checklist for Monitoring Terminal Cleaning<sup>1</sup>**

<b>Date:</b>			
<b>Unit:</b>			
<b>Room Number:</b>			
<b>Initials of ES staff (optional):<sup>2</sup></b>			

**Evaluate the following priority sites for each patient room:**

High-touch Room Surfaces <sup>3</sup>	Cleaned	Not Cleaned	Not Present in Room
Bed rails / controls			
Tray table			
IV pole (grab area)			
Call box / button			
Telephone			
Bedside table handle			
Chair			
Room sink			
Room light switch			
Room inner door knob			
Bathroom inner door knob / plate			
Bathroom light switch			
Bathroom handrails by toilet			
Bathroom sink			
Toilet seat			
Toilet flush handle			
Toilet bedpan cleaner			

**Evaluate the following additional sites if these equipment are present in the room:**

High-touch Room Surfaces <sup>3</sup>	Cleaned	Not Cleaned	Not Present in Room
IV pump control			
Multi-module monitor controls			
Multi-module monitor touch screen			
Multi-module monitor cables			
Ventilator control panel			


**Mark the monitoring method used:**

Direct observation       Fluorescent gel  
 Swab cultures               ATP system               Agar slide cultures

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<sup>1</sup>Selection of detergents and disinfectants should be according to institutional policies and procedures  
<sup>2</sup>Hospitals may choose to include identifiers of individual environmental services staff for feedback purposes.  
<sup>3</sup>Sites most frequently contaminated and touched by patients and/or healthcare workers

National Center for Emerging and Zoonotic Infectious Diseases  
 Division of Healthcare Quality Promotion



<https://www.cdc.gov/hai/pdfs/toolkits/environmental-cleaning-checklist-10-6-2010.pdf>

# Collaborations with IP and Clinicians:

- IP & EVS Task Force
  - Strategize and work closely to implement HAI reduction plans.
    - Cleaning and Disinfectant Product Evaluation
    - Updates EVS policies
    - Participate in Hand Hygiene Taskforce
    - Cubicle curtain cleaning initiatives.
    - Infection Prevention advocate for future project planning.

# Summary

- A properly disinfected environment is essential to prevent HAIs
- EVS staff must be competent to ensure infection prevention and patient safety
  - Empower EVS staff to be part of your HAI prevention team
- Engage with EVS leadership to develop robust program

# Resources

<https://www.ahe.org/designations/chest>

<https://www.cdc.gov/infectioncontrol/training/strive>

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

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

## **Environmental Cleaning Resources**

[CDC/HICPAC Guidelines for Environmental Infection Control in Health-Care Facilities, 2003](#)

[CDC/HICPAC Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008](#)

[CDC Options for Evaluating Environmental Cleaning Toolkit](#)

[CDC Environmental Checklist for Monitoring Terminal Cleaning](#)

[CDC Environmental Checklist](#) (scroll to bottom of page and download word doc)

[CDC Environmental Cleaning Eval Worksheet](#) (scroll to bottom of page and download excel doc)

[CDC/HICPAC Guidelines for Hand Hygiene in Healthcare Settings Published 2002](#)

[WHO Guidelines on Hand Hygiene in Healthcare \(2009\)](#)







[mamta.desai@pvhmc.org](mailto:mamta.desai@pvhmc.org)

909-630-7704