Infection Prevention
and
- Environmental Service Department -

Teaming up Against Health Care Associated Infections (HAI)

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Objectives

- Describe EVS Education Programs
- Collaboration with EVS and Clinicians
- EVS role in preventing HAIs

CDC/APIC STRIVE Program for EVS

Frontline Training Program

American Hospital Association

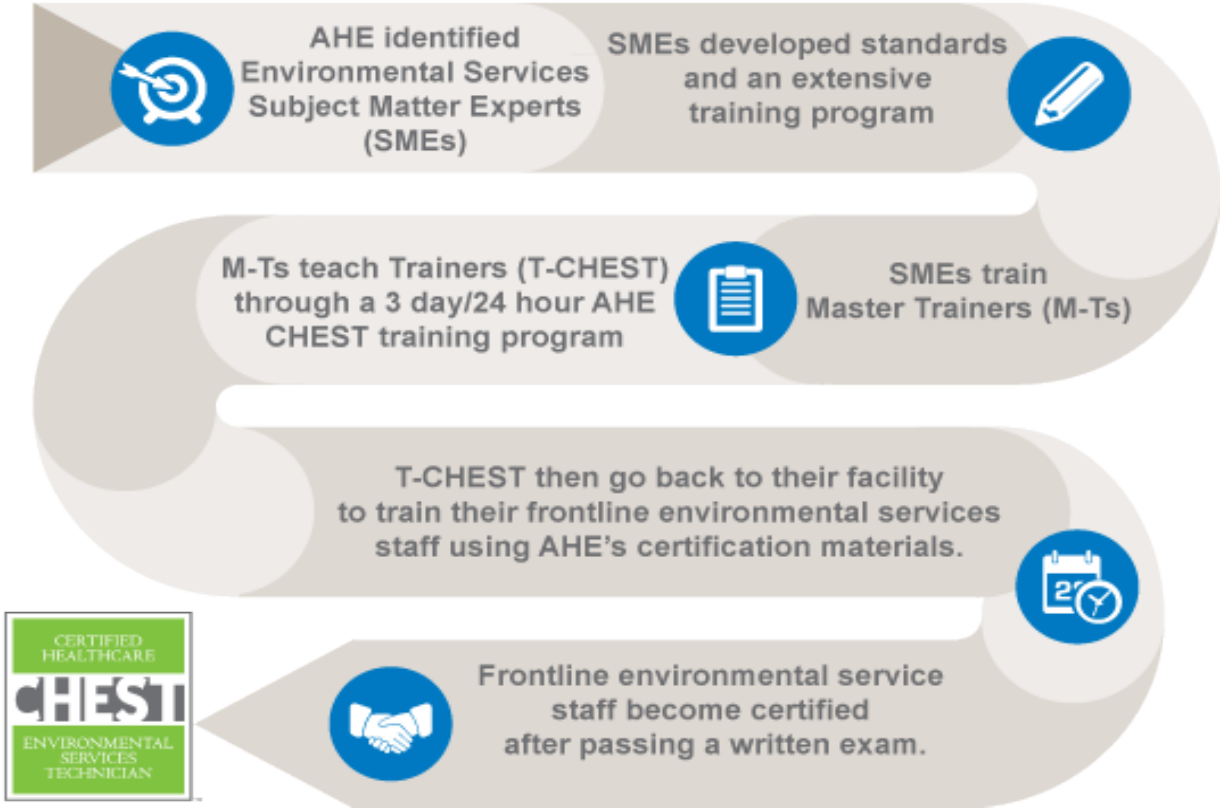
Plan and Commitment

- Implemented Best Practices
  - AHA and AHE C.H.E.S.T Program
- Education and Certification
  - Simulation Room
- Enhancement to Cleaning/Disinfection
  - Implemented UV Technology
- Monitor effectiveness of cleaning/disinfecting
  - ATP testing
- Collaborations with IP and Clinicians

About CHEST

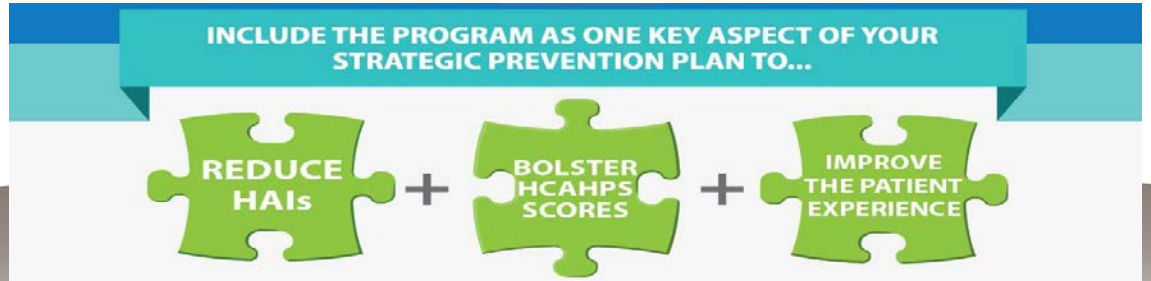
- The Certified Healthcare Environmental Services Technician (CHEST) program offers a new certification for Environmental Services frontline workers.
- It is a comprehensive, healthcare specific, **best practice** referenced training program for supervisors and the frontline staff
- **CHEST** is built 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.

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 **<u>"why"</u>** 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.

PVHMC Plan and Phased Approach

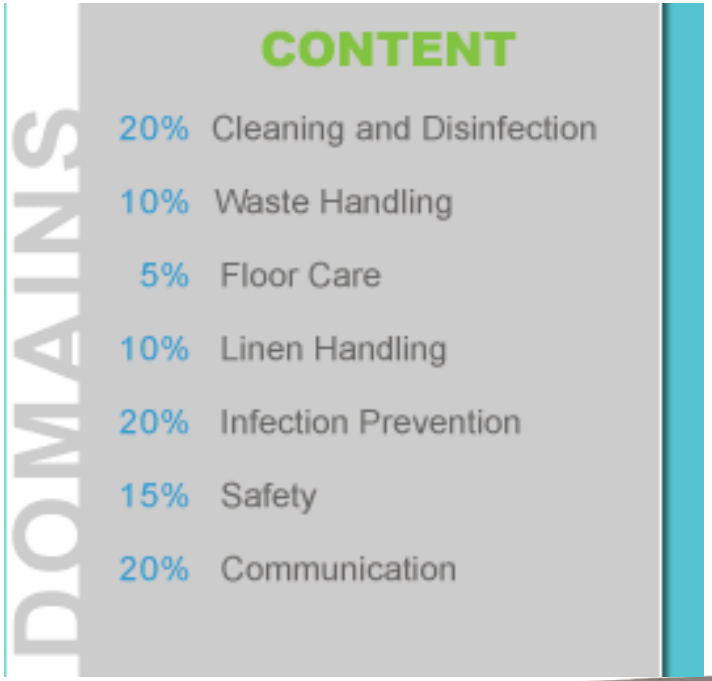
1. First Phase:
   - ✓ EVS Management T-CHEST, certified Trainers
2. Second Phase:
   - ✓ EVS Leads
3. Third Phase:
   - ✓ All Relief Leads
4. Final Phase:
   - ✓ Key EVS Associates
   - ✓ Continued Education (CEU's)

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**

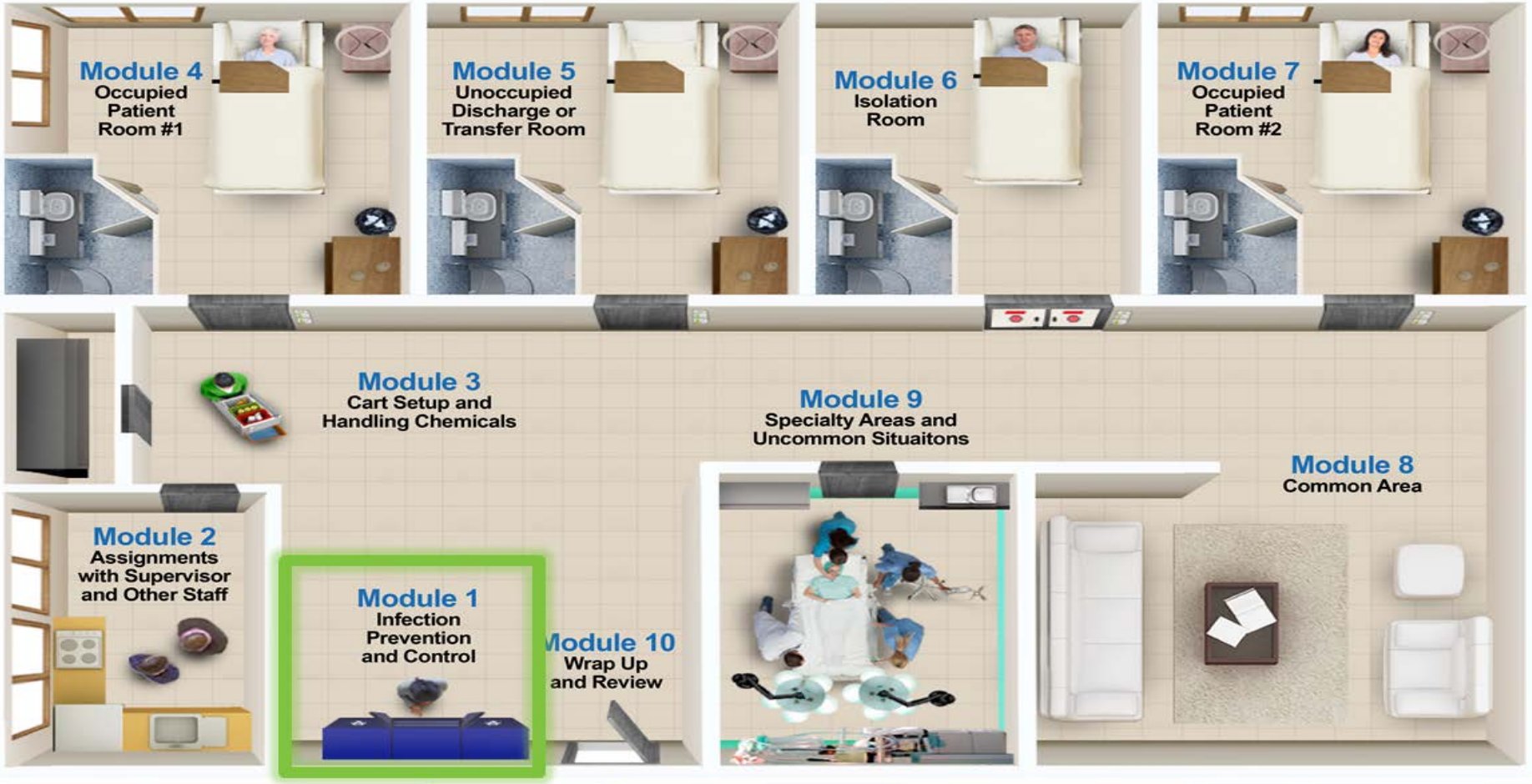
Program Components:

The program covers seven domains.



Domains are taught in 10 modules.

MODULES	
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

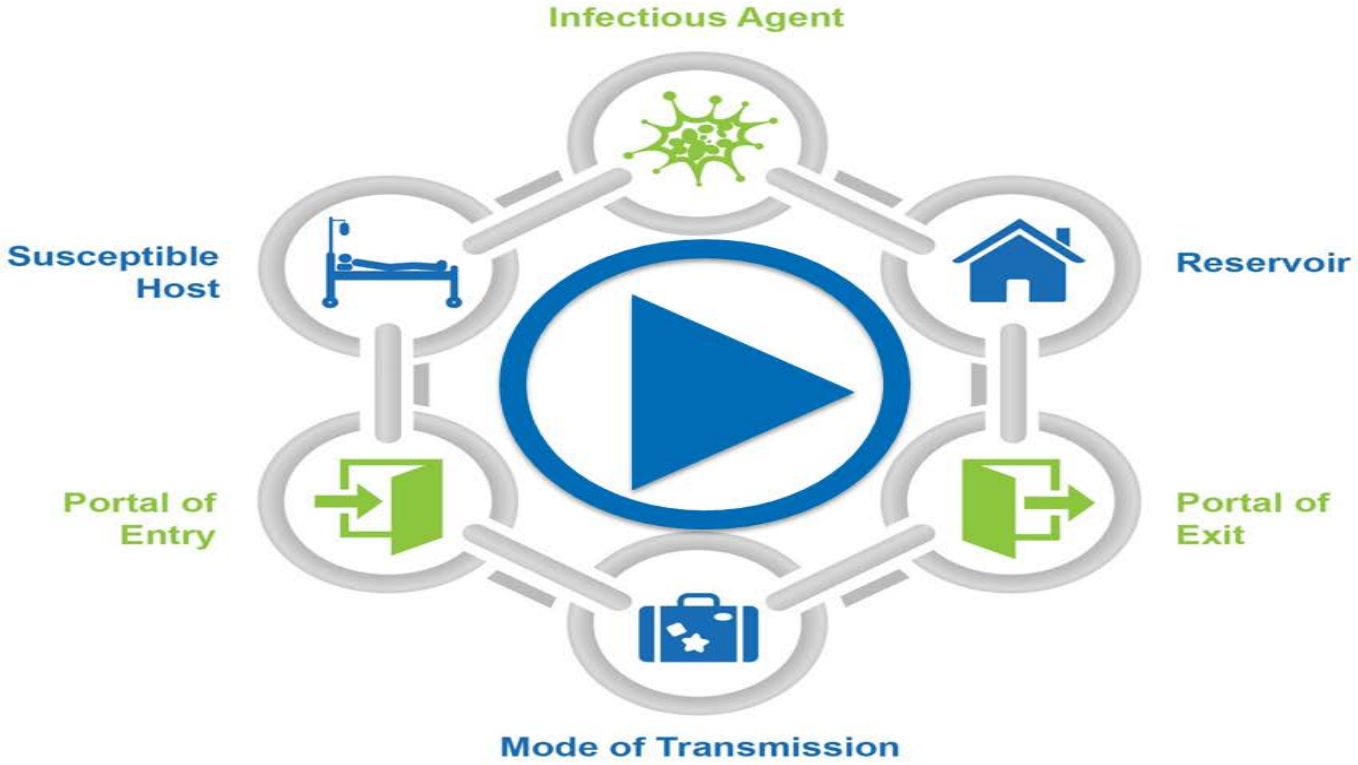


Certified Healthcare Environmental Services Technician

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**

The chain of infection



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

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In Summary:

- Healthcare Environmental Services Technicians are an **instrumental** part of the patient care team.
- Meticulously trained frontline workers in healthcare are critical to positive outcomes.
- CHEST program incorporates a systematic process for cleaning practices.
- Certification empowers frontline staff – Certified Staff are proud and confident.
  - ❖ 1300 certified in the U.S.
  - ❖ > 90 certified at PVHMC

Enhancement to Terminal Disinfection:

- Added UV disinfecting technology

  <u> In addition to routine discharge cleaning/disinfecting**</u>**

- Effective against C. difficile spores
  - All ICU rooms
  - All isolation rooms

Measuring Effectiveness

- ATP Testing
  - ✓ Patient care areas
  - ✓ Public areas and restrooms

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Measuring Effectiveness

ATP testing of HTS Results	1st Qtr 2017			2nd Qtr 2017			3rd Qtr 2017			4th Qtr 2017			YTD
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Goal: ≥ 90%	97.1%	97.9%	97.5%	96.3%	95.5%	96.4%	95.2%	93.9%	97.6%	97.8%	96.4%	98.4%	**96.8%**
Numerator	**1291**	**1600**	**2230**	**1672**	**1757**	**1914**	**475**	**1514**	**1426**	**2404**	**1830**	**2224**	**20337**
Denominator	**1330**	**1635**	**2288**	**1737**	**1840**	**1986**	**499**	**1612**	**1461**	**2458**	**1899**	**2261**	**21006**
Assess Overall judgment of the situation? Goal met or not met? Common causes of deviation and evaluation the process.	4th QTR - Goal met. All failed tests were retested and passed after cleaning to assure a passing score. 4th QTR continued exceeding the goal with the highest quarterly pass rate of ATP testing for 2018. December analyses showed that the top 2 items that failed the most were overbed table and blood pressure cuff. These were also high fails in Oct. and Nov. EVS used the UV light in isolation rooms post discharge/transfer clean a total of 599 for October, 620 for November and 778 for December. This includes ED isolation rooms, which make up a large portion of the total.												

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

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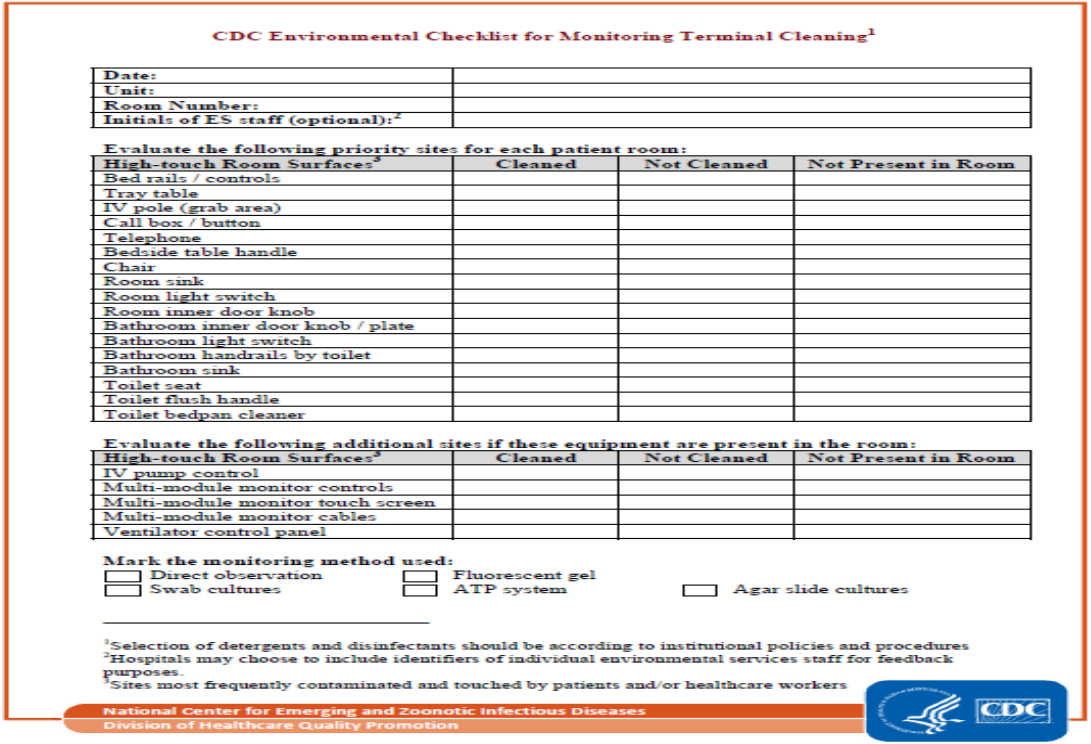
Sample Monitoring Tool



CDC Environmental Checklist for Monitoring Terminal Cleaning[1]

Date:	
Unit:	
Room Number:	
Initials of ES staff (optional):[2]	

Evaluate the following priority sites for each patient room:

High-touch Room Surfaces[3]	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[3]	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 ☐ Agar slide cultures
☐ Swab cultures ☐ ATP system

[1]Selection of detergents and disinfectants should be according to institutional policies and procedures
[2]Hospitals may choose to include identifiers of individual environmental services staff for feedback purposes.
[3]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

CDC

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

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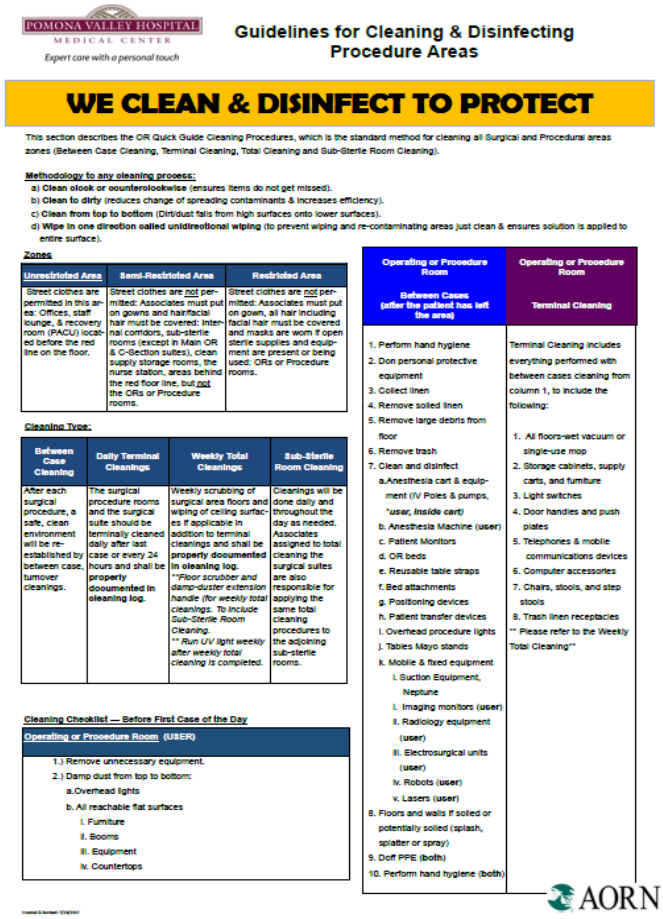
Collaborations with IP and Clinicians:

- 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.

Collaborations with IP and Clinicians:

- ✓ **Revise Policies**
- ✓ **Develop & Implement updated standardized processes e.g ARON**
- ✓ **Training & Education**
- ✓ **Future consideration to implement UV light technology in OR Suites**



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Guidelines for Cleaning & Disinfecting Procedure Areas

WE CLEAN & DISINFECT TO PROTECT

This section describes the OR Quick Guide Cleaning Procedures, which is the standard method for cleaning all Surgical and Procedural areas zones (Between Case Cleaning, Terminal Cleaning, Total Cleaning and Sub-Sterile Room Cleaning).

Methodology to any cleaning process:

a) **Clean clock or counterclockwise** (ensures items do not get missed).
b) **Clean to dirty** (reduces change of spreading contaminants & increases efficiency).
c) **Clean from top to bottom** (Dirt/dust falls from high surfaces onto lower surfaces).
d) **Wipe in one direction called unidirectional wiping** (to prevent wiping and re-contaminating areas just clean & ensures solution is applied to entire surface).

Zones

Unrestricted Area	Semi-Restricted Area	Restricted Area
Street clothes are permitted in this areas: Offices, staff lounge, & recovery room (PACU) located before the red line on the floor.	Street clothes are not permitted: Associates must put on gowns and hair/facial hair must be covered: Internal corridors, sub-sterile rooms (except in Main OR & C-Section suites), clean supply storage rooms, the nurse station, areas behind the red floor line, but not the ORs or Procedure rooms.	Street clothes are not permitted. Associates must put on gown, all hair including facial hair must be covered and masks are worn if open sterile supplies and equipment are present or being used: ORs or Procedure rooms.

Cleaning Type:

Between Case Cleaning	Daily Terminal Cleanings	Weekly Total Cleanings	Sub-Sterile Room Cleaning
After each surgical procedure, a safe, clean environment will be re-established by between case, turnover cleanings.	The surgical procedure rooms and the surgical suite should be terminally cleaned daily after last case or every 24 hours and shall be **properly documented in cleaning log.**	Weekly scrubbing of surgical area floors and wiping of ceiling surfaces if applicable in addition to terminal cleanings and shall be **properly documented in cleaning log.** ***Floor scrubber and damp-duster extension handle (for weekly total cleanings. To include Sub-Sterile Room Cleaning.* *** Run UV light weekly after weekly total cleaning is completed.*	Cleanings will be done daily and throughout the day as needed. Associates assigned to total cleaning the surgical suites are also responsible for applying the same total cleaning procedures to the adjoining sub-sterile rooms.

Cleaning Checklist — Before First Case of the Day

Operating or Procedure Room (USER)
1.) Remove unnecessary equipment.
2.) Damp dust from top to bottom:
a.Overhead lights
b. All reachable flat surfaces
i. Furniture
ii. Booms
iii. Equipment
iv. Countertops

Operating or Procedure Room Between Cases (after the patient has left the area)	Operating or Procedure Room Terminal Cleaning
1. Perform hand hygiene 2. Don personal protective equipment 3. Collect linen 4. Remove soiled linen 5. Remove large debris from floor 6. Remove trash 7. Clean and disinfect a.Anesthesia cart & equipment (IV Poles & pumps, **user, inside cart)* b. Anesthesia Machine (user) c. Patient Monitors d. OR beds e. Reusable table straps f. Bed attachments g. Positioning devices h. Patient transfer devices i. Overhead procedure lights j. Tables Mayo stands k. Mobile & fixed equipment i. Suction Equipment, Neptune i. Imaging monitors (user) ii. Radiology equipment (user) iii. Electrosurgical units (user) iv. Robots (user) v. Lasers (user) 8. Floors and walls if soiled or potentially soiled (splash, splatter or spray) 9. Doff PPE (both) 10. Perform hand hygiene (both)	Terminal Cleaning includes everything performed with between cases cleaning from column 1, to include the following: 1. All floors-wet vacuum or single-use mop 2. Storage cabinets, supply carts, and furniture 3. Light switches 4. Door handles and push plates 5. Telephones & mobile communications devices 6. Computer accessories 7. Chairs, stools, and step stools 8. Trash linen receptacles ** Please refer to the Weekly Total Cleaning"*

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Sample Policy

INFECTION CONTROL POLICY C-14

Sample Monitoring Tool

Appendix A

EQUIPMENT	FREQUENCY	RESPONSIBILITY
Patient Care Room Furniture (Includes but is not limited to)		
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
Patient Care Cubicles (ED/PACU)		
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
Patient Care Cubicles (NICU)		
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

In Closing:

- Healthcare Environmental Services Technicians are a vital part of the healthcare team and their work impacts many components of the daily operations of a facility including infection prevention, patient satisfaction, improved outcomes, and reimbursement.
- With so much at stake for healthcare facilities, training and certifying Environmental Services Technicians in critical areas of competency needs to be an essential aspect of the facility's training program.

Questions?