Cleaning & Disinfection Essentials for Long-Term Care Settings

Doe Kley, RN, MPH, T-CHEST, LTC-CIP, CIC

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Speaker Bio

Doe Kley, RN, MPH, T-CHEST, LTC-CIP, CIC

Clorox Healthcare: Infection Prevention Fellow, Clinical and Scientific Affairs

Doe Kley is an Infection Prevention Fellow within Clorox Healthcare's Clinical and Scientific Affairs team and is passionate about helping gleam insights and solutions to tackle the many challenges faced in infection prevention. Her role focuses on providing consultative services and developing practice tools using her nearly 20 years of clinical expertise in acute care infection prevention from working in large healthcare systems, such as Intermountain Healthcare and Kaiser Permanente.

Doe is a registered nurse and received her Master of Public Health from the University of Nevada, Reno, as well as a Bachelor of Microbiology from Weber State University. She teaches an infection control course for the Ohio State University (OSU) and is also dual-board certified in infection prevention and epidemiology in both acute and long-term care. Doe was recently awarded "Community Educator of the Year" from Sigma Theta Tau Nursing Honor Society. Additionally, Doe is certified to train EVS through Association for the Healthcare Environment (AHE) and is currently a member of AHE, the Association for Professionals in Infection Control & Epidemiology (APIC), the Association of periOperative Registered Nurses (AORN), and the Society for Healthcare Epidemiology of America (SHEA). Doe is active on several committees including Test Committee for the Certification Board of Infection Control & Epidemiology (CBIC) and the Advisory Council for the Pearce Foundation Environmental Services Optimization Playbook (EvSOP). She also served on the board of directors for California APIC Coordinating Council (CACC) in 2022.

Session Description

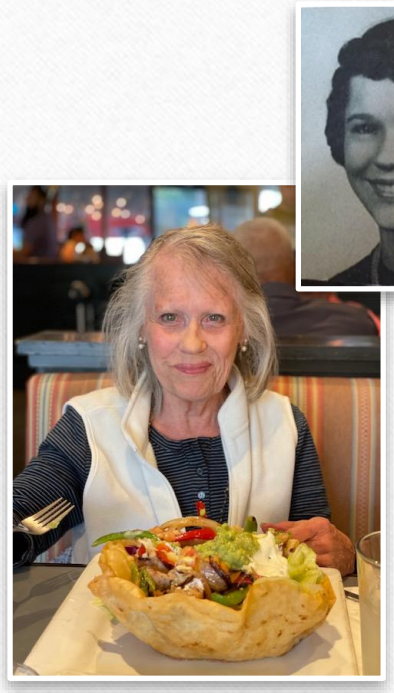
Many long-term care IPs are unaware they are accountable for environmental cleaning and disinfection in their facilities. This session equips IPs with the essential skills necessary for compliant programs, including problematic pathogens, role of the environment in transmission, regulatory requirements, and best practices for achieving a sanitary environment.

Learning Objectives

1. Examine the role of the LTC environment in the transmission of pathogens.
2. Describe regulatory requirements for environmental cleaning and disinfection in LTC settings.
3. Identify the elements for an evidence-based cleaning and disinfection program for the LTC setting.

“The “n” of one”

– Dr. Julie Gerberding, former CDC Director, 2004



Mom 86yr

Papa (1928-2017)

Background

The Importance of Environmental Cleaning & Disinfection in LTC Settings

Only **8.7%** of IPs time dedicated to environmental cleaning & disinfection[1]

1. New-ish IPC requirements (CMS)
2. Many new IPs in LTC settings
3. Population high-risk for infections
4. Cleaning & disinfection is essential

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What generation were you born into?

ⓘ Start presenting to display the poll results on this slide.

Short Staffing Driver #3: Aging Workforce

Projections

2011
First Baby Boomers turned 65yr.[1]

2016
8.3 million people received long-term care services[1]

2030
All Baby Boomers (71 million) will be ≥65yr[2]

2034
There will be more older adults than children in the US[2]

Key Facts:

- Every day, 10,000 Americans turn age 65yr.[1]
- 85% of individuals over 65 have at least 1 chronic condition.[3]
- Most Americans >65yr will need long-term care services at some point in their lives.[1]

References:

1. The Checkup. Long-Term Care Statistics 2022. [Internet]. [Cited 2022 May 20]. Available from https://www.singlecare.com/blog/news/long-term-care-statistics/
2. US Census Bureau. Older People Projected to Outnumber Children for First Time in US History. [Internet]. [Cited 2022 May 20]. Available from https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html#:~:text=%E2%80%9CBy%202034%20(previously%202035),decade%20for%20the%20U.S.%20population.
3. NIH. Supporting Older Patients with Chronic Conditions. [Internet]. [Cited 2022 May 20]. Available from https://www.nia.nih.gov/health/supporting-older-patients-chronic-conditions

Where Aging Americans Live

- 66,000 LTCFs[1]
- 8.3 million residents[1]
- $197 billion in 2020[2]

Nursing Homes

Skilled Nursing Facilities (SNF)

Long-Term Acute Care Hospitals (LTACHS)

References:

1. Consumer Affairs. Long-term care statistics [Internet]. [Cited 2022 Mar 20]. Available from https://www.consumeraffairs.com/health/long-term-care-statistics.html#:~:text=There%20are%20about%2065%2C600%20regulated,people%20in%20assisted%20living%20facilities
2. Skilled Nursing News. National Nursing Home Spending [Internet]. [Cited 2022 Mar 20]]. Available from https://skillednursingnews.com/2021/12/national-nursing-home-spending-reaches-196-8-billion-in-2020/#:~:text=Nursing%20facilities%20and%20continuing%20care,%2422.6%20billion%20more%20than%202019.

Nursing Home Census Increasing

$7800/month for shared room!

1.35 million
nursing home residents[1]

This number is expected to **double** by 2030![1]

- Population shifts
- Increasing Life Expectancy
- Increased Risk

References:

1. Consumer Affairs. Long-term care statistics [Internet]. [Cited 2022.03.20]. Available from https://www.consumeraffairs.com/health/long-term-care-statistics.html#:~:text=There%20are%20about%2065%2C600%20regulated,people%20in%20assisted%20living%20facilities

HAI Rates in Long-Term Care

Acute care: 1 in 31

LTC: 1 in 43

380,000 HAI-associated deaths annually

HAIs in LTC made the 10 list of patient safety concerns.

References:

CDC. Nursing Homes and Assisted Living (Long-term Care Facilities [LTCFs]) [cited 2019 Sep 6]. Available from: https://www.cdc.gov/longtermcare/index.htm

CDC. HAI Data Portal, 2021. Available from https://www.cdc.gov/hai/data/portal/index.html

CDC. HAI and Antibiotic Use Prevalence Survey. Available from https://www.cdc.gov/hai/eip/antibiotic-use.html

ECRI. Top 10 Patient Safety Concerns 2025. Available from

It looks like the vast majority of us are from generation _____.

But truly its irrelevant. If all goes as planned, we will all be older someday and the data tells us that most of us will need LTC services at some point in our lives.

The Cost and Impact of HAIs in Long-Term Care

380,000 deaths annually

HAI cost $38M-2B annually

Antibiotic treatment increases risk of MDROs

Administrators forced to shift resources

Facility closures

References:
1. Cohen CC, Choi YJ, Stone PW. Costs of infection prevention practices in LTC settings: A systematic review. Nurs Econ. 2016;34(1) 16-24.
2. CDC. NHSN tracking infections in long-term care facilities. [Internet]. [Cited 2022 May 22]. Available from http://www.cdc.gov/nhsn/LTC/

The Cost and Impact of HAIs in Long-Term Care

"Environmental cleaning & disinfection is a low cost, high yield, evidence-based just-do-it intervention"

– Doe Kley

HAI Risk

Non-Modifiable Risk Factors

- Age
- Co-morbidities
- Skin integrity
- Congregate setting
- Waning immune system

Modifiable Risk Factors

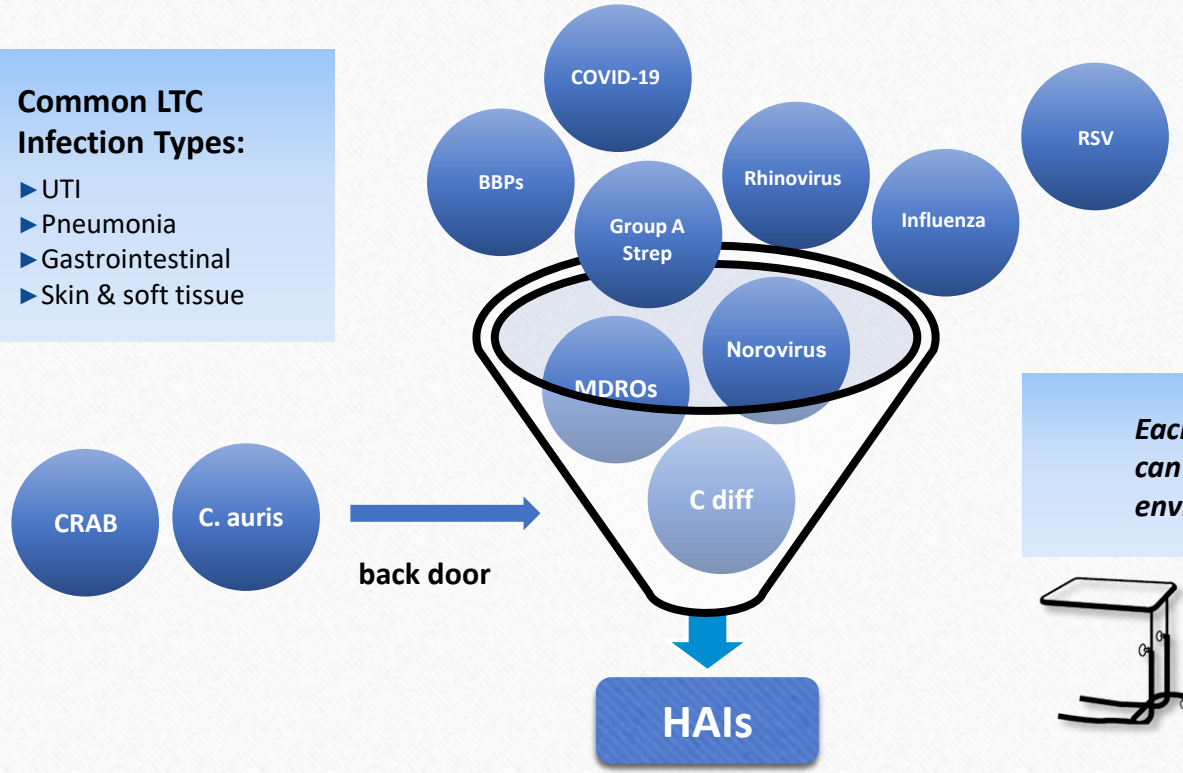
- System design
- Shared rooms
- Invasive devices
- Staffing
- Budget
- Education & training
- Antibiotic exposure

References: Infection Prevention Guide to Long-Term Care. 2nd ed. Arlington, VA: APIC; 2019.

Most Common Pathogens in LTC Settings

Common LTC Infection Types:

- ▶UTI
- ▶Pneumonia
- ▶Gastrointestinal
- ▶Skin & soft tissue



Each of these pathogens can be transmitted on environmental surfaces!

References:

1. Richards M. Causes of infection in long-term care facilities: An overview [Internet]. [Cited 2022 May 1]. Available from https://www.uptodate.com/contents/causes-of-infection-in-long-term-care-facilities-an-overview.
2. 2. Cannon JL, Park GW, Anderson B, Leone C, Chao M, Vinje J, et al. Hygienic monitoring in LTCFs using ATP, crAssphage, and human noroviruses to direct environmental surface cleaning. AJIC. 2022; 50:289-294.

And there are even more pathogens…

Infection Type	Top 2 Causative Agents	
Pneumonia	Streptococcus pneumoniae[2]	Gram negative bacilli[2]
Ventilator-associated Pneumonia (VAP)	Pseudomonas aeruginosa[1]	Staphylococcus aureus[1]
Catheter-associated Urinary Tract Infection (CAUTI)	Pseudomonas aeruginosa[1]	Escherichia coli[1]
Central Line Bloodstream Infection (CLABSI)	Enterococcus faecalis[1]	Coagulase negative Staphylococcus (CONS)[1]

References:

1. Weiner-Lastinger LM, Abner S, Edwards JR, Kallen AJ, Karlsson M, Magill SS, et al. Antimicrobial-resistant pathogens associated with adult healthcare-associated infections: Summary of data reported to the National Healthcare Safety Network, 2015-2017. Infect Control Hosp Epidemiol. 2019 Nov, 25:1-18
2. UpToDate [Internet]. Causes of infection in long-term care facilities: An overview. 2018 Oct 2 [cited 2019 Dec 7]. Available from https://www.uptodate.com/contents/causes-of-infection-in-long-term-care-facilities-an-overview

Multidrug-resistant Organism (MDRO) Prevalence

Environmental contamination was found in **93% of common areas**[1]

45–80% of residents harbor an MDRO — most without a known MDRO history[1,3]

Environmental contamination was found in **74%-100% of resident rooms**[1,2]

References:

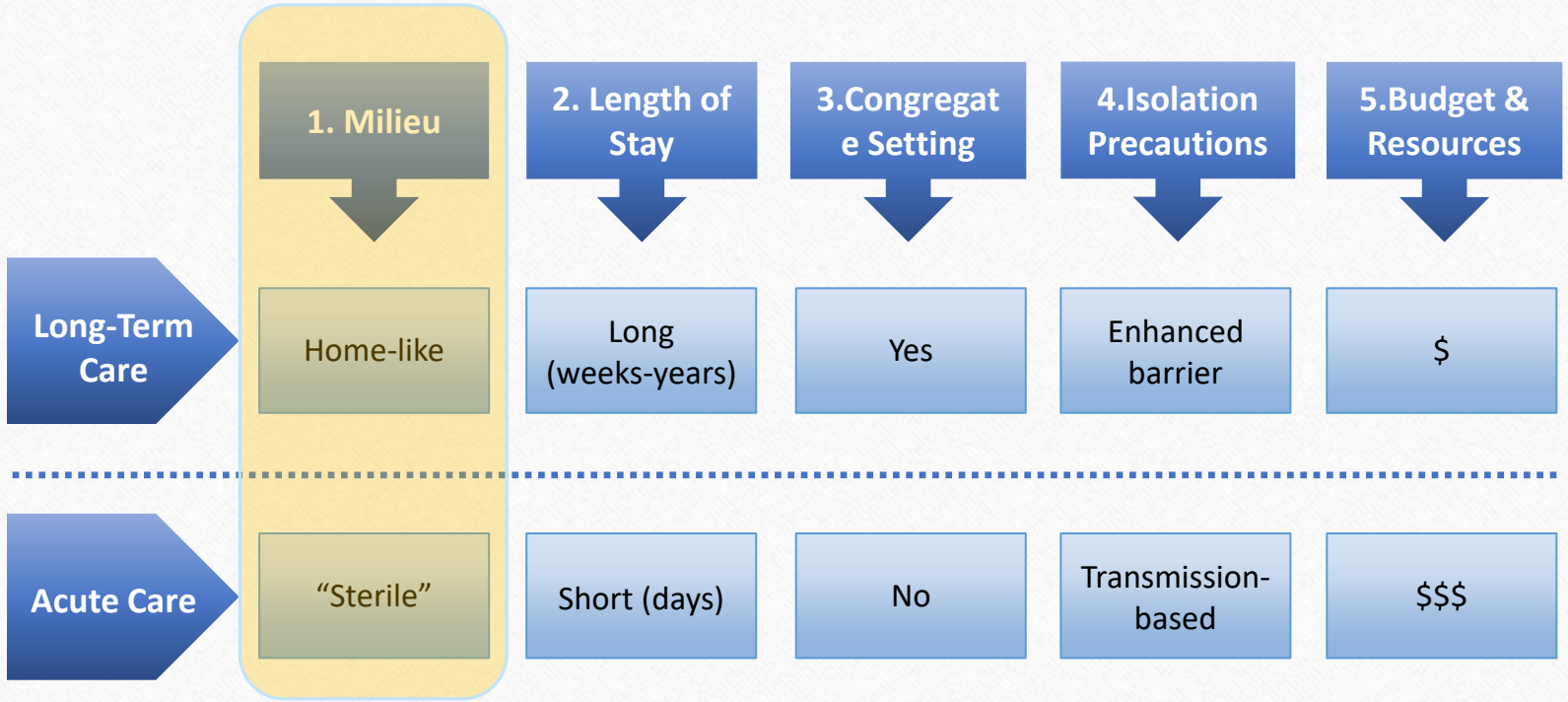
1. McKinnell J, Miller L, Singh R, Walters D, Peterson E, Huang S. High Prevalence of MDRO Colonization in 28 NHs: An Iceberg Effect. JAMDA. 2020;21(12):1937-1943
2. Cassone M, Wang J, Lansing B, Mantey J, Gibson K, Gontjes K, et al. Proceeding from SHEA 2022. Poster: Diversity and persistence of MRSA and VRE in NHs: Environmental screening and whole-genome sequencing. ASHE. 2022;2:s80.
3. McKinnell J, Singh R, Miller L, Kleinman K, Gussin G, He J, et al. The SHIELD Orange County Project: MDRO Prevalence in 21 NHs and LTACHs in So Cal. Clin Infect Dis. 2019;69(9):1566-1573.

Cleaning in LTC Setting is Different

	1. Milieu	2. Length of Stay	3.Congregate Setting	4.Isolation Precautions	5.Budget & Resources
Long-Term Care	Home-like	Long (weeks-years)	Yes	Enhanced barrier	$
Acute Care	"Sterile"	Short (days)	No	Transmission-based	$$$

Learn more about CDC's Enhanced Barrier Precautions here: https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Cleaning in LTC Setting is Different



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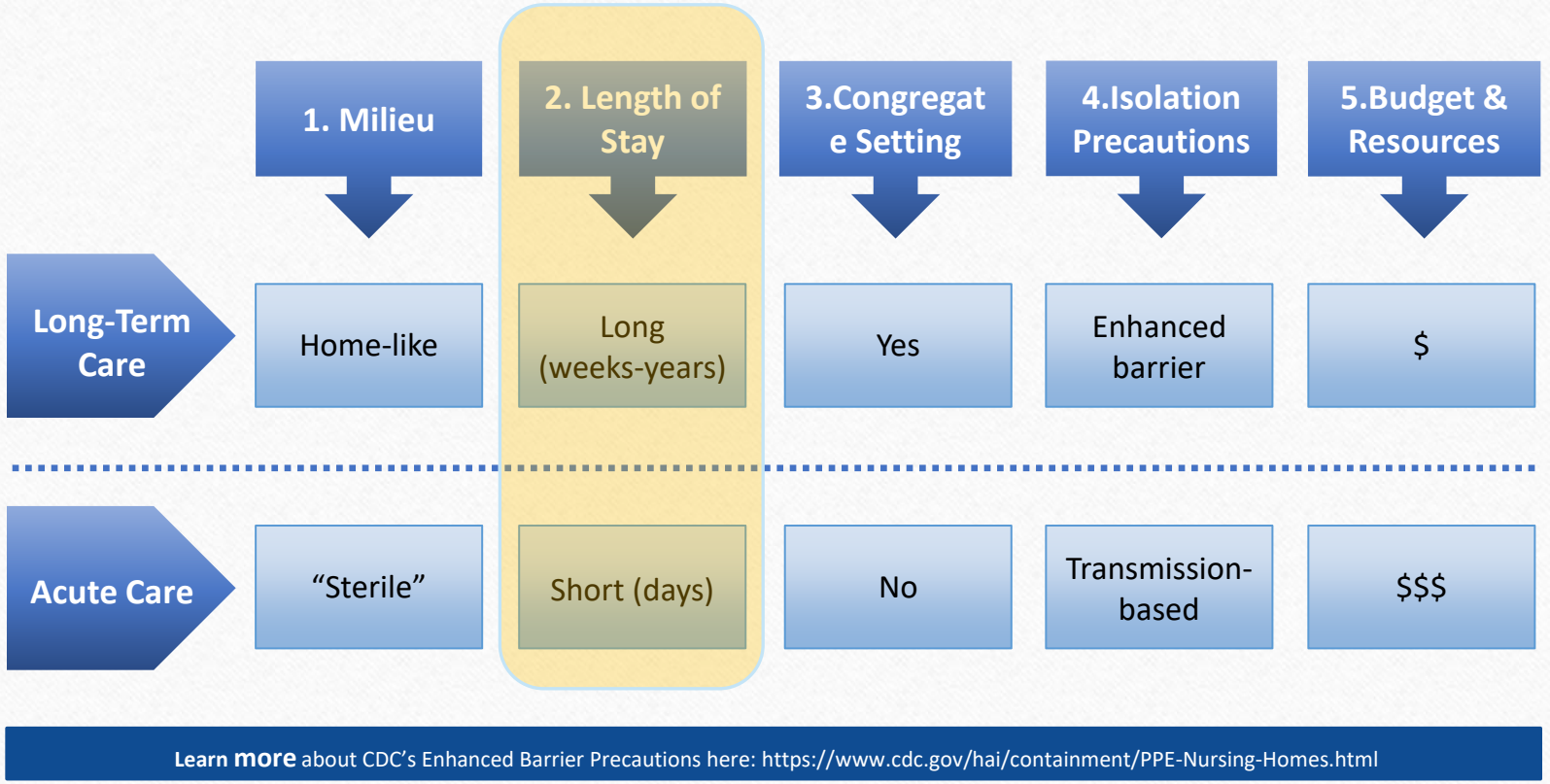

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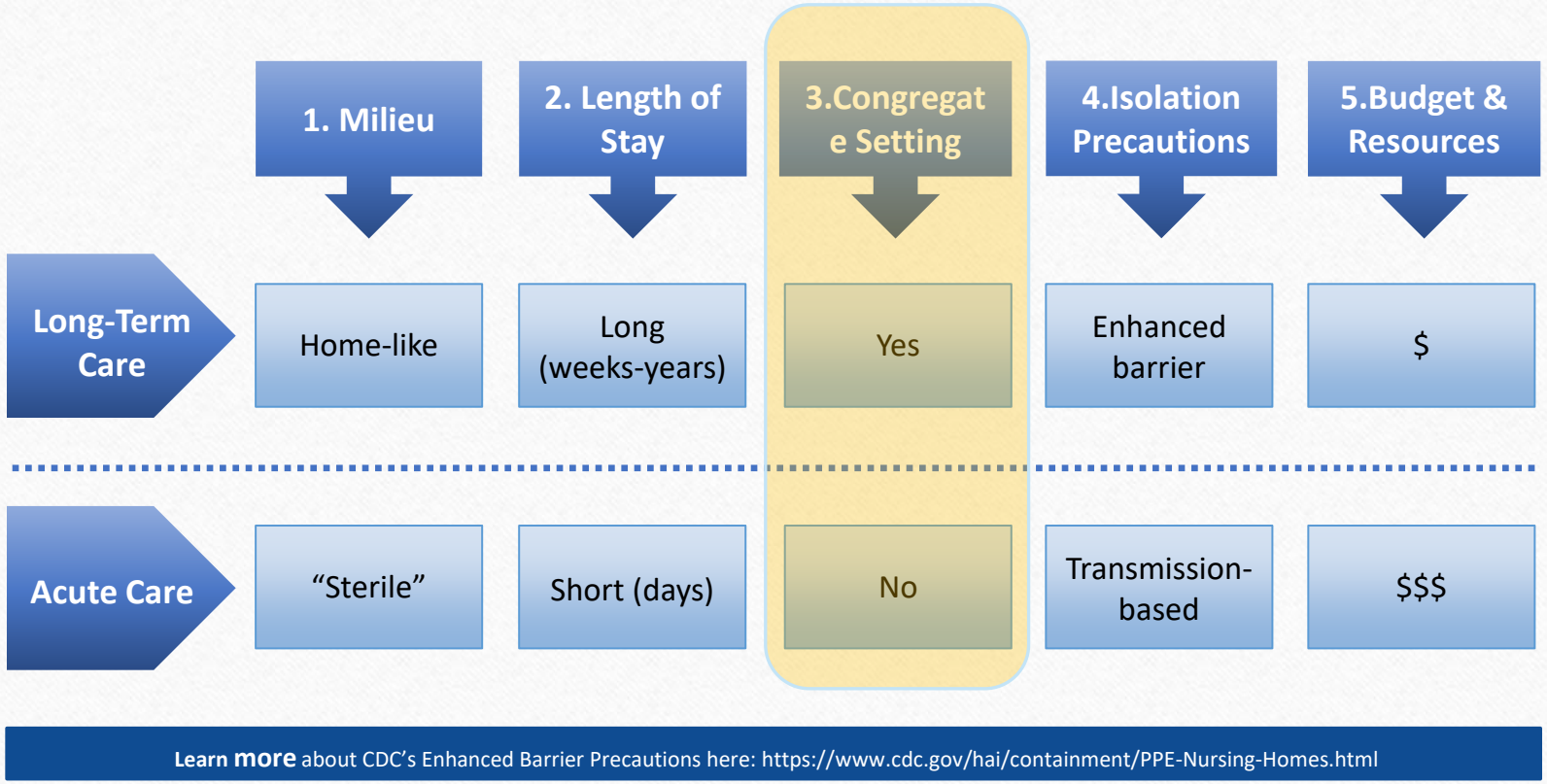

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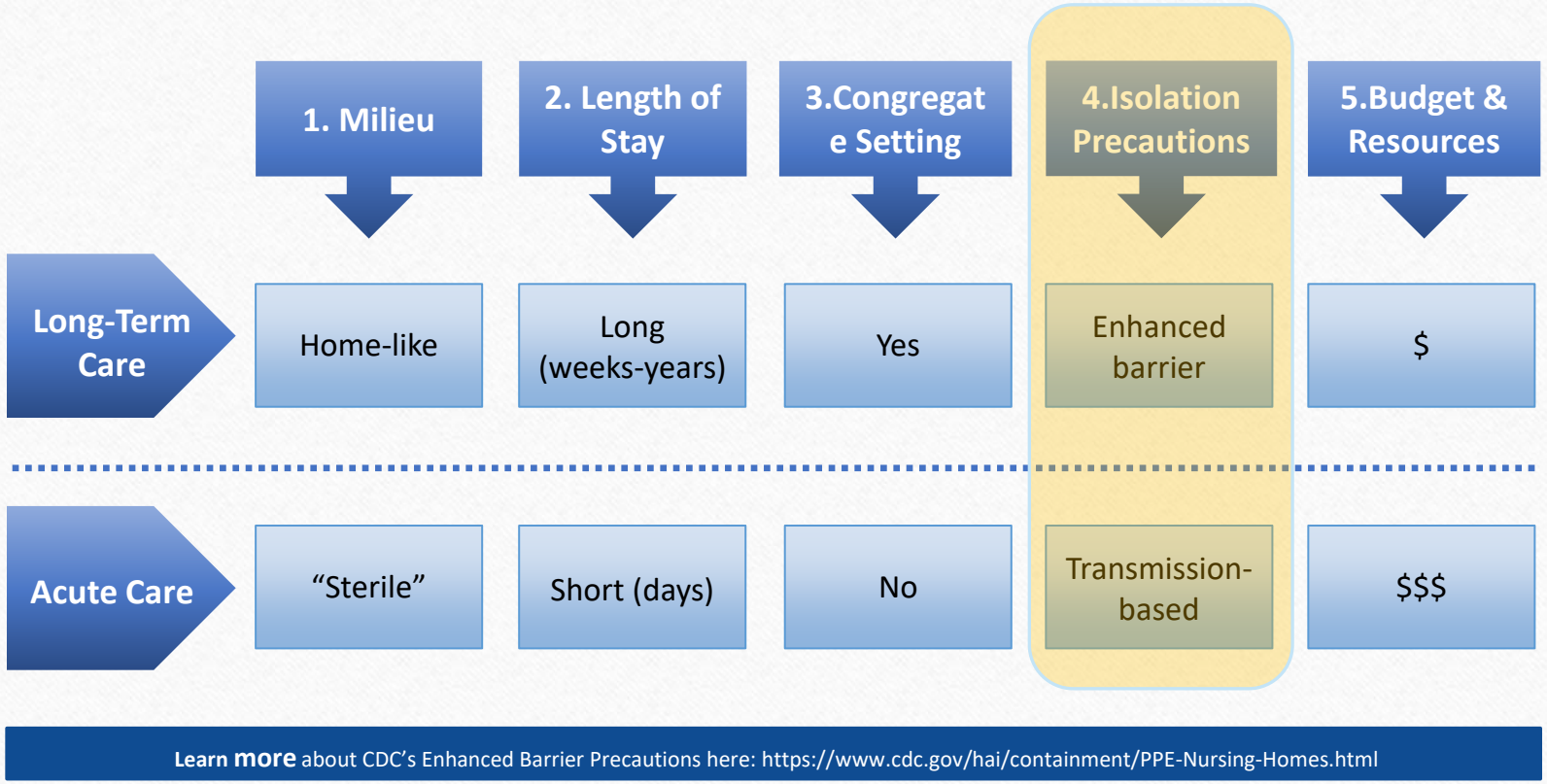

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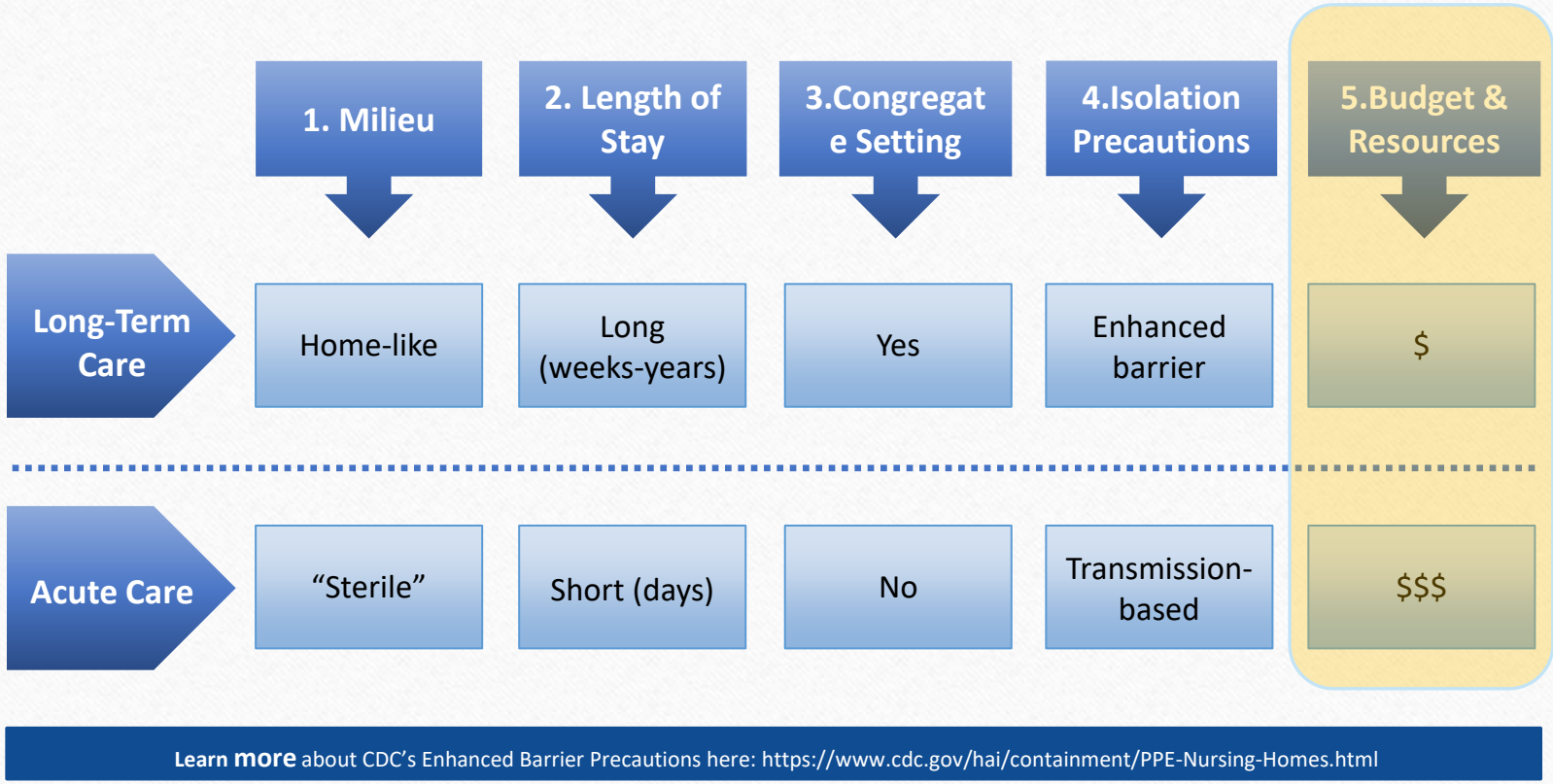

Learn more about CDC's Enhanced Barrier Precautions here: https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Cleaning and Disinfection Challenges

A recent CMS Pilot Project (2015-2018) found that **80% of facilities** have serious gaps in environmental cleaning programs.[1]

Common findings among EVS programs:

- Lack of training and competency
- Failure to adhere to IFUs
- Lack of auditing practices & compliance—no feedback
- Lack of medical equipment cleaning policies
- Use of cotton mops

References: Ogundimu, A. Proceedings from APIC 2019: Association for Professionals in Infection Control and Epidemiology on Infection Prevention and Control (IPC) Practices in Nursing Homes: Findings from a CMS Infection Control Pilot Project. Philadelphia, PA.

The Environments Role in Transmission

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What percent of surfaces that should be cleaned are missed?

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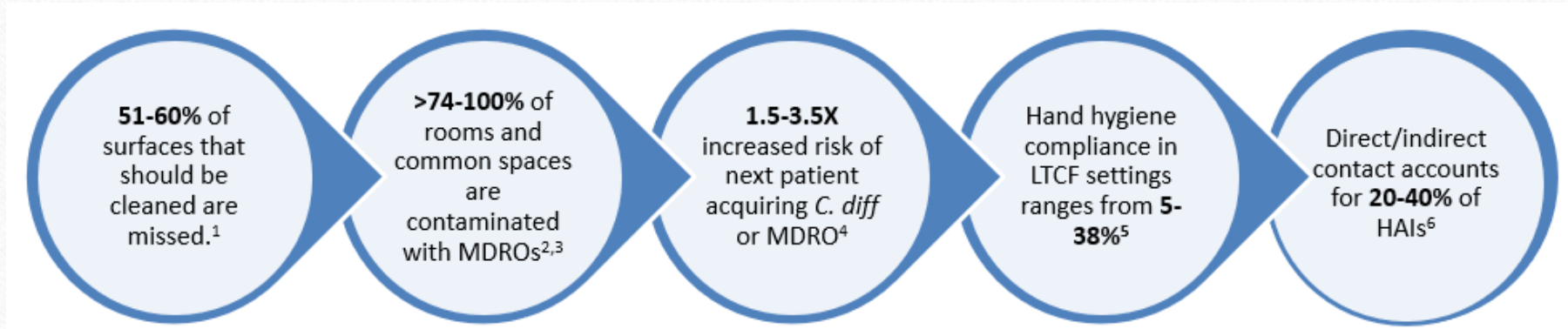
Contribution of Improper Cleaning to Transmission



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1. Carling PC, Bartley JM. Evaluating hygienic cleaning in health care settings: what you do not know can harm your patients. AM J Infect Control. 2010;38:S41-50
2. McKinnell J, Miller L, Singh R, Walters D, Peterson E, Huang S. High Prevalence of MDRO Colonization in 28 NHs: An Iceberg Effect. JAMDA. 2020;21(12):1937-1943
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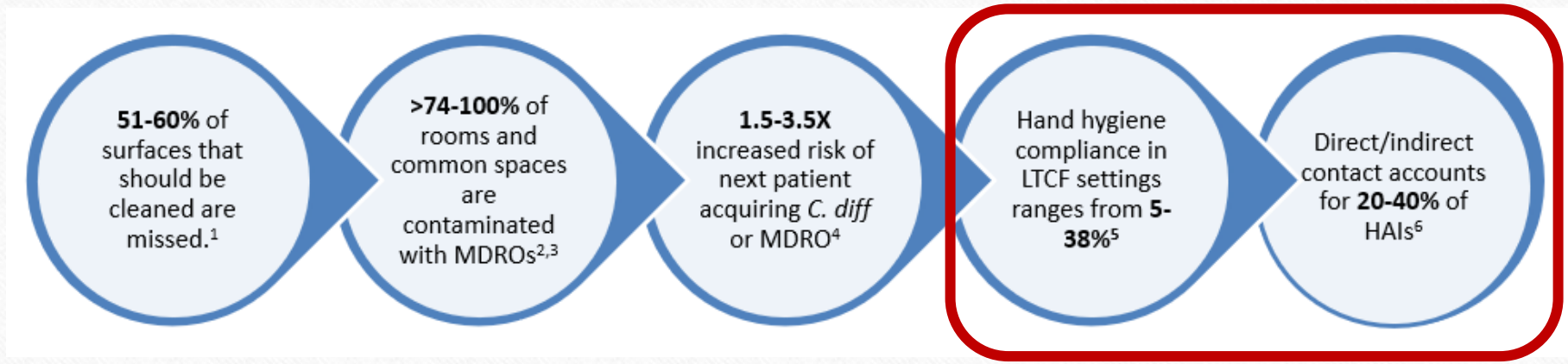
4. Chemaly R, Simmons S, Dale C, Ghantoji S, Rodriguez M, Gubb J, et al. The role of the healthcare environment in the spread of MDROs: update on current best practices. Ther Adv Infect Dis. 2014;2(3-4), 79-90.
5. Haenen A, Greeff S, Voss A, Liefers J, Hulscher M, Huis A. Hand hygiene compliance and its drivers in LTCFs; observations and a survey. *Antimicrob Resist Infect Control. 2022; 11(50)*
6. Suleyman G, Alangaden G, Bardossy A. The Role of Environmental Contamination in the Transmission of Nosocomial Pathogens and HAIs. Curr Infect Dis Rep. 2018; 20:12

Contribution of Improper Cleaning to Transmission



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Common LTC Pathogen Survival Time on Surfaces

PATHOGEN CLASS	PATHOGEN	SURFACE VIABILITY
BACTERIA	C. difficile[1]	5 months
	E. coli[2]	Several years
	Enterococcus sp. (inc. VRE)[2]	4 months
	Staphylococcus aureus (MRSA)[2]	10 months
	Pseudomonas aeruginosa[2]	10 days
	Streptococcus pneumoniae[2]	1 month
VIRUSES	COVID-19[2]	1 week
	Hepatitis B virus [2]	2 weeks
	Hepatitis C virus [3]	5 days
	HIV[2]	1 week
	Influenza A Virus [2]	2 weeks
	Norovirus [2]	2 weeks
	Rhinovirus [2]	1 day
FUNGI	Candida auris[2]	2 weeks

References:

1. Fekety R, Kim KH, Brown D, Batts DH, Cudmore M, Silva J. Jr. Epidemiology of antibiotic-associated colitis; isolation of Clostridium difficile from the hospital environment. Am. J. Med. 1981; 70:906–908.
2. Wibmann J, Kirchhoff L, Bruggemann Y, Todt D, Steinmann J, Steinmann E. Persistence of Pathogens on Inanimate Surfaces: A Narrative Review. Microorganisms. 2021; 9, 343.
3. Doerbecker J et al. Inactivation and Survival of Hepatitis C Virus on Inanimate Surfaces. J Infect Dis. 2011; 204(12): 1830–1838.

Frequency of Residents Contact with the Environment

8 LTCFS across 6 states

>500hrs and 1,726 observations in common areas

12 resident-environment and **26 staff-environment contacts per hour** on average

Common areas with the most frequent environmental contact included:

- Dining room,
- PT/OT,
- Group recreation areas, and
- Courtyard

References:
Pineles L, Perencevich E, Roghmann M, Gupta K, Cadena, J, Barocco G, et al. Frequency of Nursing Home Resident Contact with Staff, other Residents, and the Environment outside Resident Rooms. Infection Control & Hospital Epidemiology. 2019;1-3. https://doi.org/10.1017/ice.2019.117.

Pathogen Spread in Facilities is FAST!

67-bed nursing home study

Viral traces was seeded onto volunteer hands.

Within 4hr, viral tracer found on **49%** of surfaces throughout the facility

Location	Commonly Contaminated Surfaces
Entryway & Lobby	Elevator button, handrails
Dining Room	Door handles, chairs
Nurses' Station	Tables, charts, desk, stapler, phone
Team Room	Door handles, table, chair, light switch
Resident Rooms	Door handles, dresser, bedside table, call light
Activity Room	Refrigerator handle, faucet handle, food tray table, chair, game table
Shower Room	Door handles, faucet handle, handrails

Hygiene interventions reduced the viral tracer by 99%!

References: Sassi, H., Sifuentes, L., Koenig,D., Nichols, E., Clark-Greuel, J., Wong, L., McGrath, K., Gerba, C., and Reynolds, K. Control of the spread of viruses in a long-term care facility using hygiene protocols. Am J Infect Contrl. 2015; Vol 43: 702-6.

Fecal Matter Contamination in LTCFs

11 LTCFs

High-touch surfaces tested for norovirus, crAssphage*, and adenosine triphosphate (ATP)**

>90% of surfaces failed ATP testing and tested positive for the fecal indicator virus

High-touch Surfaces	Comments
▶ Handrails ▶ Equipment controls ▶ Patient beds	**4X** more likely to have fecal contamination.
▶ Bed rails ▶ Resident lounges	Also had high levels of ATP and the fecal indicator virus.

*The most prevalent bacteriophage in the human gut.
**The "energy currency" of all living cells

References:
Cannon JL, Park GW, Anderson B, Leone C, Chao M, Vinje J, et al. Hygienic Monitoring in LTCFs using ATP, crAssphage, and Human Norovirus to Detect Environmental Surface Cleaning. AJIC. 2022; 50: 289-294.

Portable Equipment

- Glucometers
- Stethoscopes
- Thermometers
- Pulse oximeters
- Bladder scanner
- Vital signs machines

References: Donskey C. Beyond high-touch surfaces: Portable equipment and floors as potential sources of transmission of HAIs. AJIC. 2019; 47: A90-95.

Regulatory Requirements for Cleaning & Disinfection in LTCF Settings

Key Regulatory Bodies—Cleaning & Disinfection

Centers for Medicare and Medicaid Services (CMS)
Federal Agency
Focus: Quality care for beneficiaries

Public Health Departments
State and Local Agencies
Focus: Protect/improve health of populations

US Environmental Protection Agency (EPA)
Federal Agency
Focus: Registration of pesticides (e.g., disinfectants)

Occupational Safety and Health Administration (OSHA)
Federal Agency (some state-level plans)
Focus: Worker safety

CMS: Key Infection Control Requirements: 42 CFR Part 483.80

Infection control risk assessment

Antimicroabial stewardship

Designated and trained Infection Preventionist

Non-compliance → Lost revenue $$$

Key Resources:

Appendix PP: Guidance to Surveyers for Long Term Care Facilities

CMS Revised LTC Surveyor Guidance Memorandum

CMS Required Infection Control Policies for LTC

- Hand Hygiene
- Standard & Transmission-Based Precautions
- **Cleaning & Disinfection**
- Staff Education/Competency
- Resident/Family Education

CMS required policies

- High-Touch Surfaces
- Common Areas and
- Resident Rooms
- Resident Care Equipment
- Privacy Curtain Changing

References: CMS. State Operations Manual Appendix PP, 2017 [Internet]. [cited 2022 May 2]. Available from https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

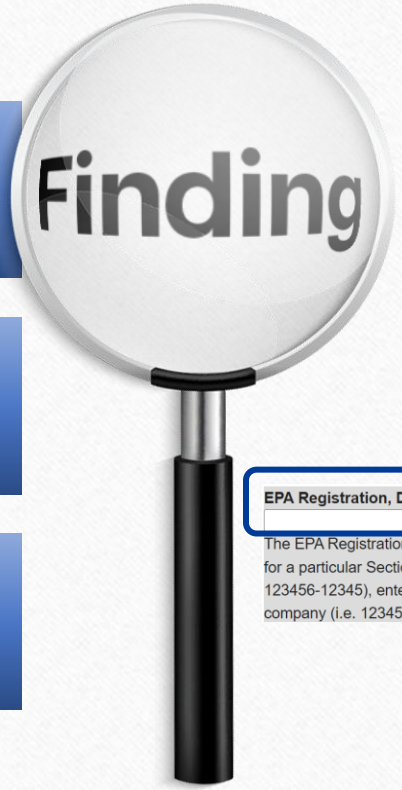
OSHA	
Biological Hazards – Infectious Diseases (29 CFR 1910.1030)	Includes the Bloodborne Pathogens Standard ▶ PPE ▶ Cleaning up blood/body fluid spills ▶ Medical waste
Hazardous Chemicals (29 CFR 1910.1200)	29 CFR 1910.1200 PPE Handling and storing cleaning supplies Hazards communication ▶ Safety Data Sheets (SDS) ▶ Training ▶ Labels
Slips/Trips/Falls (29 CFR 1910,22)	Floors clean and dry – spill clean up, wet floor signs Do not obstruct corridors
COVID-19 Healthcare Standard	The ETS was withdrawn (with exception of some documentation). Currently finalizing a permanent standard.
General Duty Clause (OSHA Act of 1970)	Catch-all for everything else! A work environment "free from recognized hazards that are causing or are likely to cause death or serious physical harm."

The Environmental Protection Agency (EPA)

EPA requires following manufacturer IFUs — it's the law!

EPA-registered products are safe when used as directed

Product labels vs Master Labels: Master Label is the "one source of truth"



Master Labels

https://ordspub.epa.gov/ords/pesticides/f?p=PPLS:1

EPA Registration, Distributor Product, or Special Local Need Number:

The EPA Registration Number (EPA Reg. No.) appears on the label of all registered pesticides sold in the United States. To search for a particular Section 3 registration, enter the entire registration number (including the hyphen with no leading zeroes (i.e. 123456-12345), enter just the company number (the first set of digits before the hyphen) to search for all products related to that company (i.e. 123456)...

References: www.epa.gov

CLOROX HEALTHCARE®

Elements of an Evidence-Based Cleaning & Disinfection Program for LTC Settings

CLOROXPRO®

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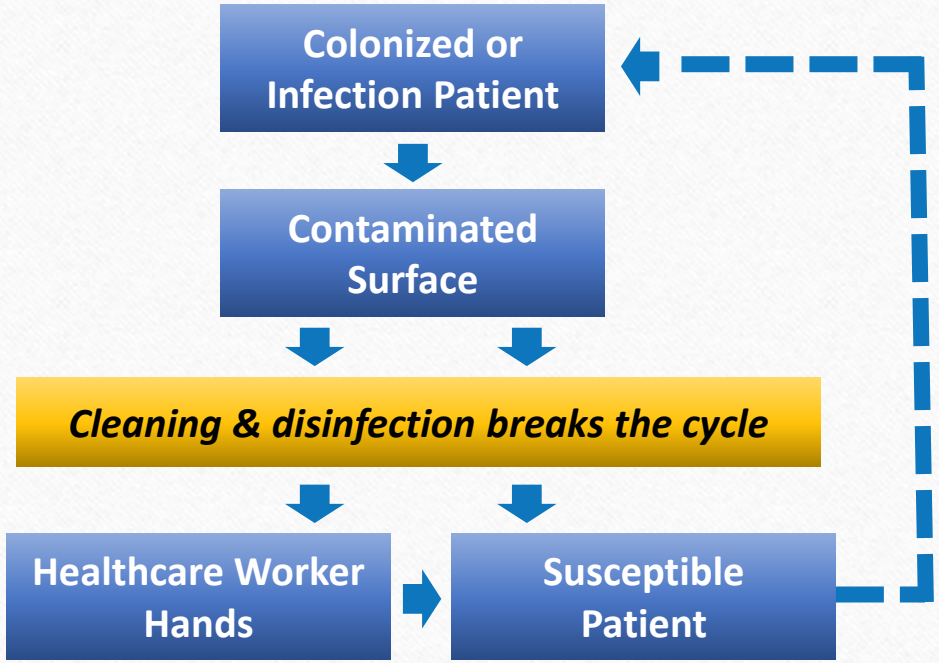
Have you assessed your cleaning & disinfection program in the last 12 months?

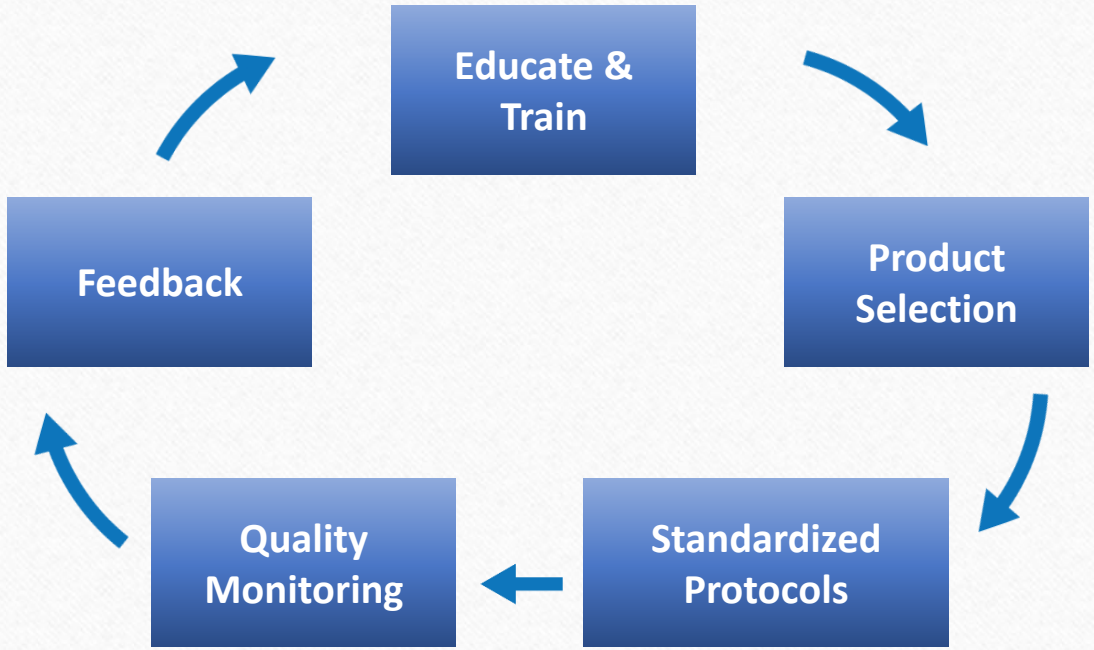
ⓘ Start presenting to display the poll results on this slide.

Cleaning & Disinfection Breaks Infection Transmission



References: CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Cleaning & Disinfection Program Core Components



References: CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Core Component #1: Educate and Train

What	When
Facility policies	On hire and annually
Pathogen transmission	New products or policy change
Impact of cleaning & disinfection	Re-train as needed based on audit findings
Safety	

Be sure to assess competency!

References: CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Core Component #2: Product Selection (con't)

Properties of the Ideal Disinfectant

- Broad spectrum
- Surface compatibility
- Easy to use
- Remains wet for full contact time
- Fast-acting
- Acceptable odor
- Safe

Pathogen Considerations:

- Claims for pathogens common to the specific setting.
- Claims for pathogens of concern specific to *your* facility.

Considerations for dilutables:

- **HAI risk** of improper dilution.
- **Wasteful**: Must discard remaining product.
- **Efficiency:** Secondary containers must be cleaned & disinfected.

References:

Rutala W, Weber D. Selection of the Ideal Disinfectant. ICHE. 2014; Vol 35(7).

Donskey et al. Dilution dysfunction: evaluation of automated disinfectant dispenser systems in 10 hospitals demonstrated a need for improved monitoring to ensure correct disinfectant concentrations are delivered. 2024. ICHE.

Core Component #2: Product Selection (con't)

Properties of the Ideal Disinfectant

- Broad spectrum
- Surface compatibility
- Easy to use
- Remains wet for full contact time
- Fast-acting
- Acceptable odor
- Safe

Pathogen Considerations:

- Claims for pathogens common to the specific setting.
- Claims for pathogens of concern specific to *your* facility.

Considerations for dilutables:

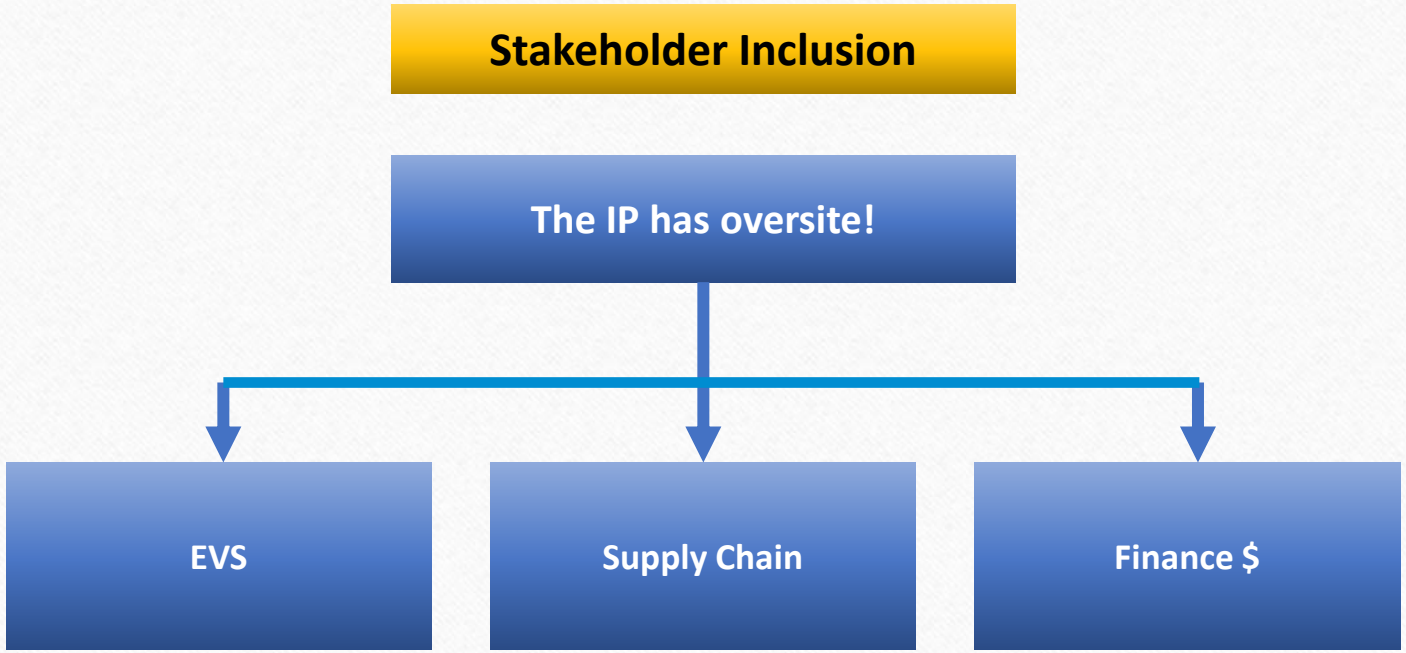
- **HAI risk** of improper dilution.
- **Wasteful**: Must discard remaining product.
- **Efficiency:** Secondary containers must be cleaned & disinfected.

References:

Rutala W, Weber D. Selection of the Ideal Disinfectant. ICHE. 2014; Vol 35(7).

Donskey et al. Dilution dysfunction: evaluation of automated disinfectant dispenser systems in 10 hospitals demonstrated a need for improved monitoring to ensure correct disinfectant concentrations are delivered. 2024. ICHE.

Core Component #2: Product Selection (con't)



References: CDC. Reduce Risk from Surfaces [Internet].[Cited 2021 Sep 8]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Core Component #3: Standardized Protocols

- [x] [redacted]
- [ ] Defined responsibilities
- [ ] Supplies readily available
- [ ] PPE

- [x] [redacted]
- [ ] Specific pathogens
- [ ] Isolation room identification
- [ ] Minimum cleaning times
- [ ] Readily accessible policies & protocols

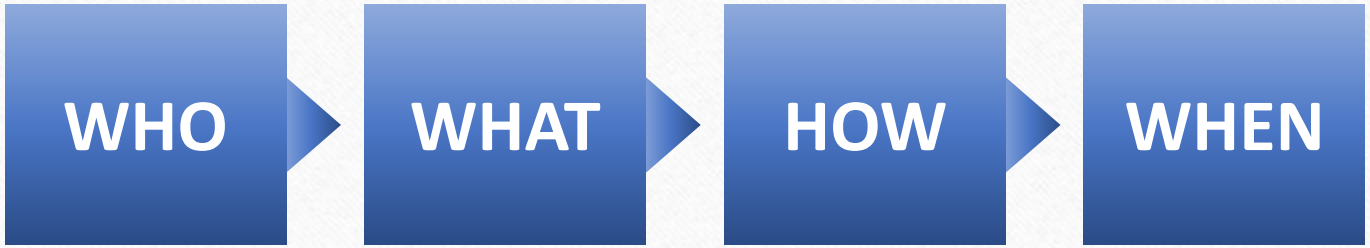
References:
CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html
Joint Commission Resources. Environmental Infection Prevention: A Guide by Joint Commission Resources. 2018. Available from TJC.

TOOL: Cleaning Responsibility Grid

WHAT	WHEN	WHO	HOW	
ITEM	CLEANING FREQUENCY	RESPONSIBLE DISCIPLINE	APPROVED DISINFECTANT (& CONTACT TIME)	EQUIPMENT MANUFACTURERS IFU'S
Mobile vital signs machine	After each patient, when visibly soiled, any time in doubt	Nursing assistant	Product X quaternary ammonium ready-to-use wipes (1 min.)	
Common areas (e.g., dining room, activity hall, etc.)	After each event	EVS	Product Y hydrogen peroxide ready-to-use wipes (1 min.)	
Resident personal belongings	Scheduled	???	TBD	

Core Component #4: Quality Monitoring

Quality Monitoring Strategy

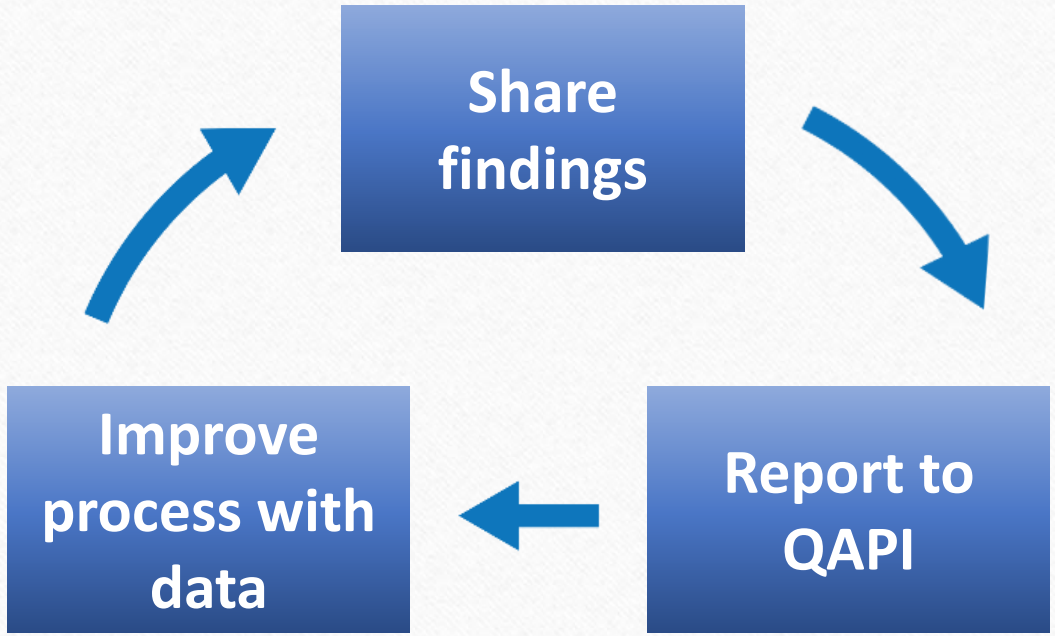


For sample size determination, see CDCs Appendix C in Options for Evaluating Environmental Cleaning:

https://www.cdc.gov/HAI/toolkits/Appendices-Evaluating-Environ-Cleaning.html#c

References: CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Core Component #5: Feedback

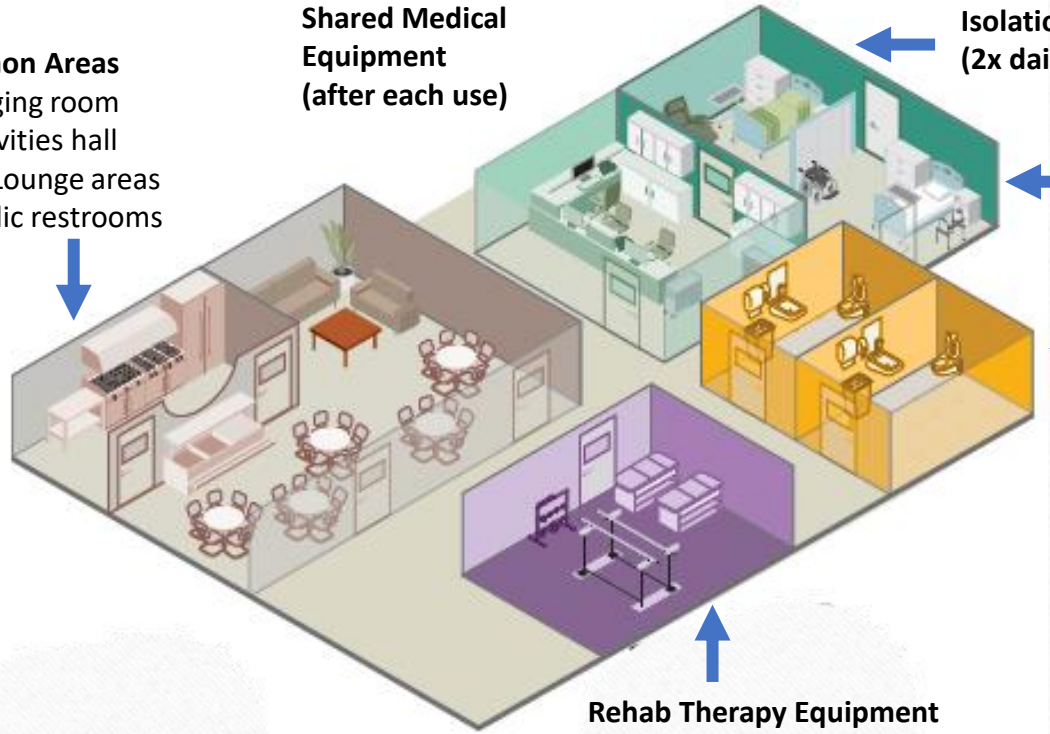


References:
CDC. Reduce Risk from Surfaces [Internet].[Cited 2022 April 11]. Available from https://www.cdc.gov/hai/prevent/environment/surfaces.html

Where and When to Clean & Disinfect

Common Areas
- Dinging room
- Activities hall
- TV/Lounge areas
- Public restrooms

Shared Medical Equipment (after each use)



Isolation Rooms (2x daily)

Resident Rooms (1X daily)

Restrooms (2X daily)

Rehab Therapy Equipment

References:

1. CMS. State Operations Manual – Appendix PP – Guidance to Surveyors for Long Term Care Facilities, 2017. [Internet]. [Cited 2022 May 10]. Available from https://www.cms.gov/manuals/Downloads/SOM107ap_pp_Guidelines_ltcf.pdf
2. CDC. HAIs: Environmental Cleaning Procedures. [Internet]. [Cite 2022 May 25]. Available from https://www.cdc.gov/hai/prevent/resource-limited/cleaning-procedures.htm
3. CDC. Cleaning Frequency Risk Assessment. Available at https://www.cdc.gov/hai/prevent/resource-limited/risk-assessment.html

High-Touch Surfaces

Common High-Touch Surfaces

- Side Rails
- Over-bed tables
- Nightstands
- Call lights
- Remote control

- Telephones
- Privacy curtains
- Light switches
- Doorknobs, handrails, and other handles

- Bathroom fixtures
- Computer keyboards & tablets
- Mobility equipment (w/c, walkers, etc.)

References:

1. Infection Prevention Guide to Long-Term Care. 2nd ed. Arlington, VA: APIC; 2019.
2. CMS. State Operations Manual – Appendix PP – Guidance to Surveyors for Long Term Care Facilities, 2017. [Internet]. [Cited 2022 May 10]. Available from https://www.cms.gov/manuals/Downloads/SOM107ap_pp_Guidelines_ltcf.pdf

TOOL: Gap Analysis

REQUIREMENT	FACILITY POLICIES
State Regulation (Title 22): Cleaning of occupied patient areas, nurses' stations, work areas, halls, entrances, storage areas, rest rooms, laundry, pharmacy, offices, etc.	Nurses Stations: Halls: Entrances: Storage Areas: • See EVS policy titled "Cleaning of Ancillary Areas Utility Rooms, Storage Rooms Elevators, and Meeting Rooms" Rest rooms: • See EVS policy titled "Cleaning of Restrooms" Laundry: • Unable to find policy on cleaning of the Laundry room • See EVS policy titled "Cleaning Linen Rooms" Pharmacy: • See EVS policy titled "Cleaning of Pharmacy" Offices (Ancillary area?) • See EVS policy titled "Cleaning of Ancillary Areas Utility Rooms, Storage Rooms Elevators, and Meeting Rooms"

Process Surveillance

Areas to Consider Observing per CMS

- Hand hygiene
- Appropriate use of Standard and Transmission-based Precautions
- Point of care testing
- **Cleaning and Disinfection:**
  - **Equipment**
  - **Environmental Surfaces**
- Practices for resident care
- Linen management

References:
CMS 42 CFR Part 483.80 State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities. [Internet]. [Cited 2022 May 13]. Available from https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

Process Surveillance

What to Include

- Environmental surface cleaning
- Medical equipment cleaning
- Compliance with facility P&P
- Use of the correct product for the task
- Adherence to disinfectant IFUs including contact time

References:
CMS 42 CFR Part 483.80 State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities. [Internet]. [Cited 2022 May 13]. Available from https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

In Conclusion

Key Take-Aways

1. Need for long-term care (LTC) is growing as the Baby Boomers age

2. The environment clearly plays a role in transmission and cleaning & disinfection breaks the chain of infection.

3. LTC settings have their own prevalent pathogens and unique C&D challenges

4. Solution: Robust cleaning and disinfection program using CDC Core Component, thoughtful product selection, and compliance with evidence-based practices.

5. Where to turn for regulatory requirements, policy development

6. Some useful tools were shared along the way

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