# Facility Assessment and Infection Control Assessment and Response (ICAR) in EVS

Objectives

- Use facility assessment to identify barriers and challenges for resident/patients, environment of care and environmental services, and staff

- Implement effective environmental services in response to plan developed from facility assessment

# Person-Centered Philosophy of Acute Care and Long-Term Care
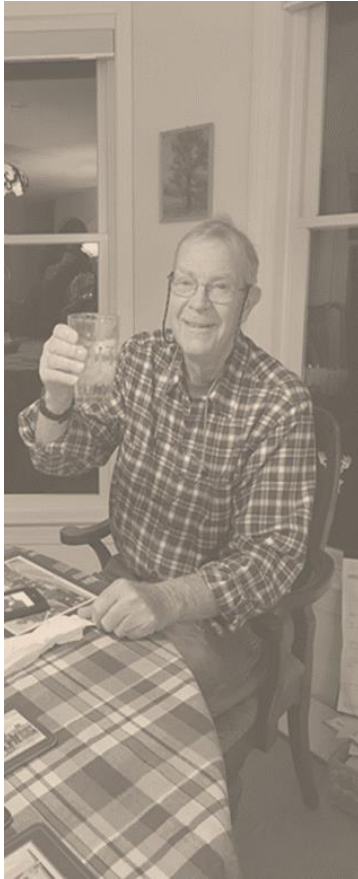
- Acute Care
  - Acute reversible medical condition
  - Focus on cure
- Long-Term Care
  - Highest practicable level of function
  - Biopsychosocial support
  - Focus on improving and maintaining day to day function
  - Move away from custodial model

Requirement §483.70(e): Facility Assessment

- Nursing facilities will
  - Conduct
  - Document
  - Annually review a facility-wide assessment
- Include
  - Resident population
  - Resources the facility needs to care for their residents

Facility-Wide Assessment

Resident/Patient/Client Population

Plant/Operations

Personnel

Facility Assessment

Includes Environmental Services
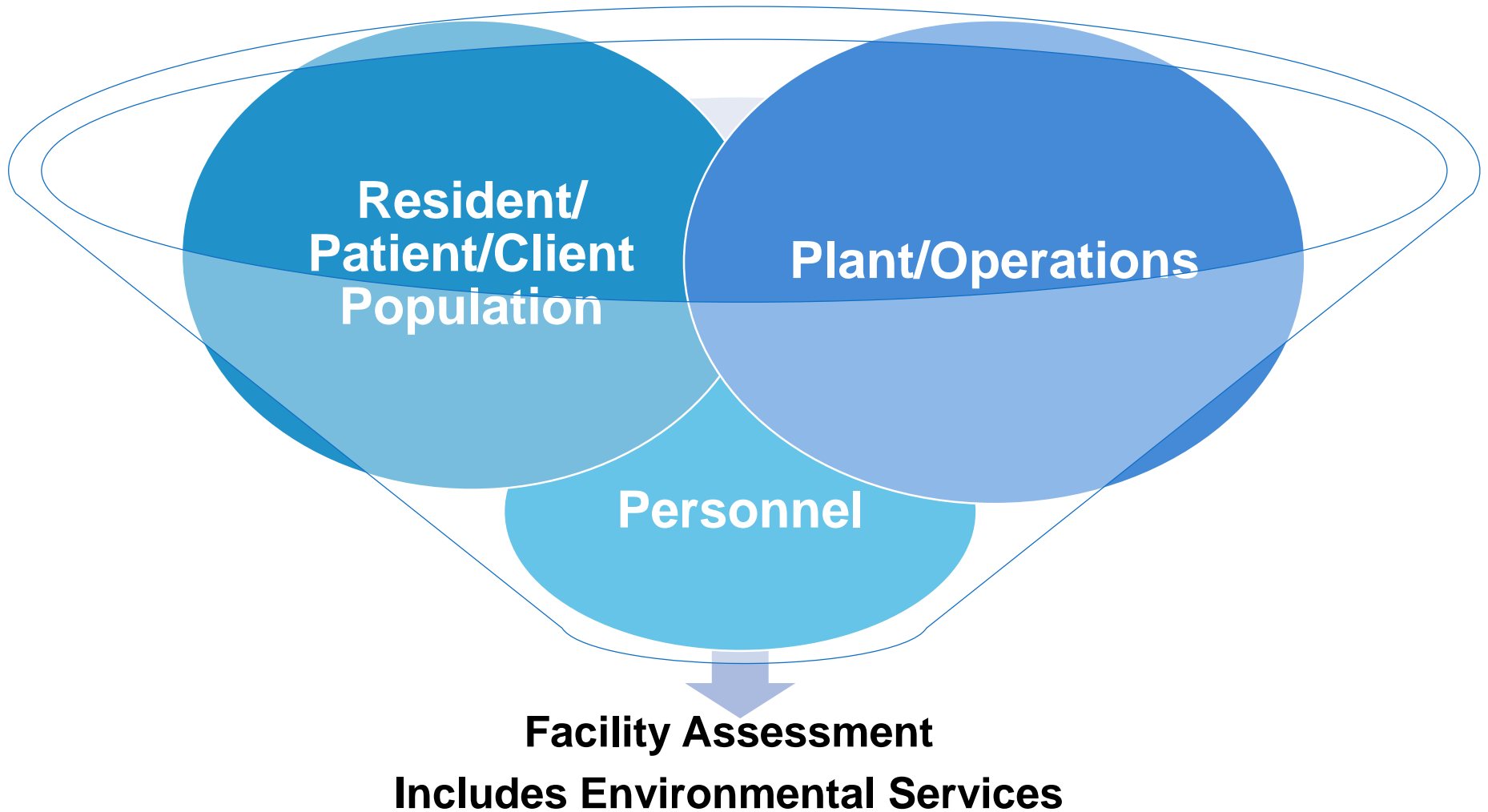
Facility Assessment Exercise

Response to Surveyors

- Who was involved in conducting the facility assessment?

- How did the facility determine:
  - Staffing level?
  - Skills and competencies would be required by those providing care?

- How did the facility determine:
  - What equipment
  - Supplies
  - Physical environment would be required to meet all resident needs?

- How did the facility develop its emergency plan?

Residents, Patients, and Clients

- Number of residents and resident capacity
- The care required by the resident population
  - Types of diseases, conditions, physical and cognitive disabilities
  - Overall acuity and other pertinent facts that are present within that population
- Any ethnic, cultural or religious factors that may potentially affect the care provided:
  - Activities
  - Food
  - Nutrition

Image: YAY Images

9

Federal Register Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities Final Rule: 10/4/16.

Personnel

- Determine and review individual staff assignments for coordination and continuity
- Training/education and competencies necessary
- List all staff training and competencies needed by type of staff
- Cultural competency and person-centered care
- Disaster planning / All hazards approach
- Infection prevention and control

Personnel

- Describe your general staffing plan
- Ensure sufficient staff to meet the needs at any given time
- Consider the degree of fluctuation in the census and acuity levels
- Review individual staff assignments
- Coordinate and provide continuity of care within and across staff assignments

Facilities

- The facility's resources
- All buildings
- Physical structures
- Vehicles
- Equipment (medical and nonmedical)

# CDC Infection Control Assessment and Response (ICAR)

- Infection Control Program and Infrastructure
- Healthcare Personnel and Resident Safety
- Surveillance and Disease Reporting
- Hand Hygiene
- Personal Protective Equipment (PPE)
- Respiratory / Cough Etiquette
- Antibiotic Stewardship
- Injection Safety and Point of Care Testing
- Environmental Cleaning

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Mandatory Reporting

XDRO registry

Extensively drug resistant organism registry   Citations   Help   Login
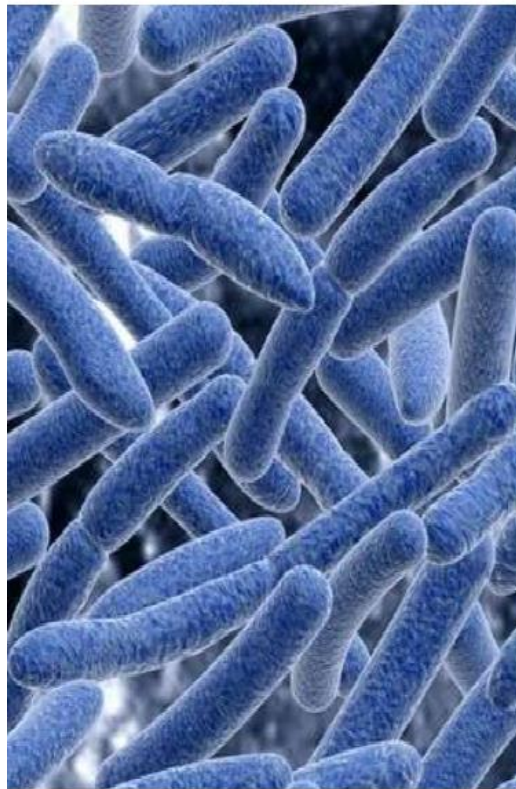
Click Here

To report CRE, please log-in through **IDPH portal** and access the XDRO registry under 'product application'

New users (who do not have access to the IDPH web portal): You must register for access to the IDPH web portal. Fill out the form to create a new username, and select the box to access the application "INEDSS (Disease Surveillance) System/XDRO registry (extensively drug resistant organism)." This may take several weeks to process.

Users who have access to the IDPH web portal, but not the INEDSS/XDRO application: If you already have a username and access to the IDPH web portal, **do not fill out a new registration form.** Please have your facility Portal Registration Authority (PRA)* send an email to DPH.Security@illinois.gov requesting for you to have access to the additional application "INEDSS (Disease Surveillance) System/XDRO registry (extensively drug resistant organism)." Make sure your PRA includes your full name and User ID.

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Disinfecting the Environment

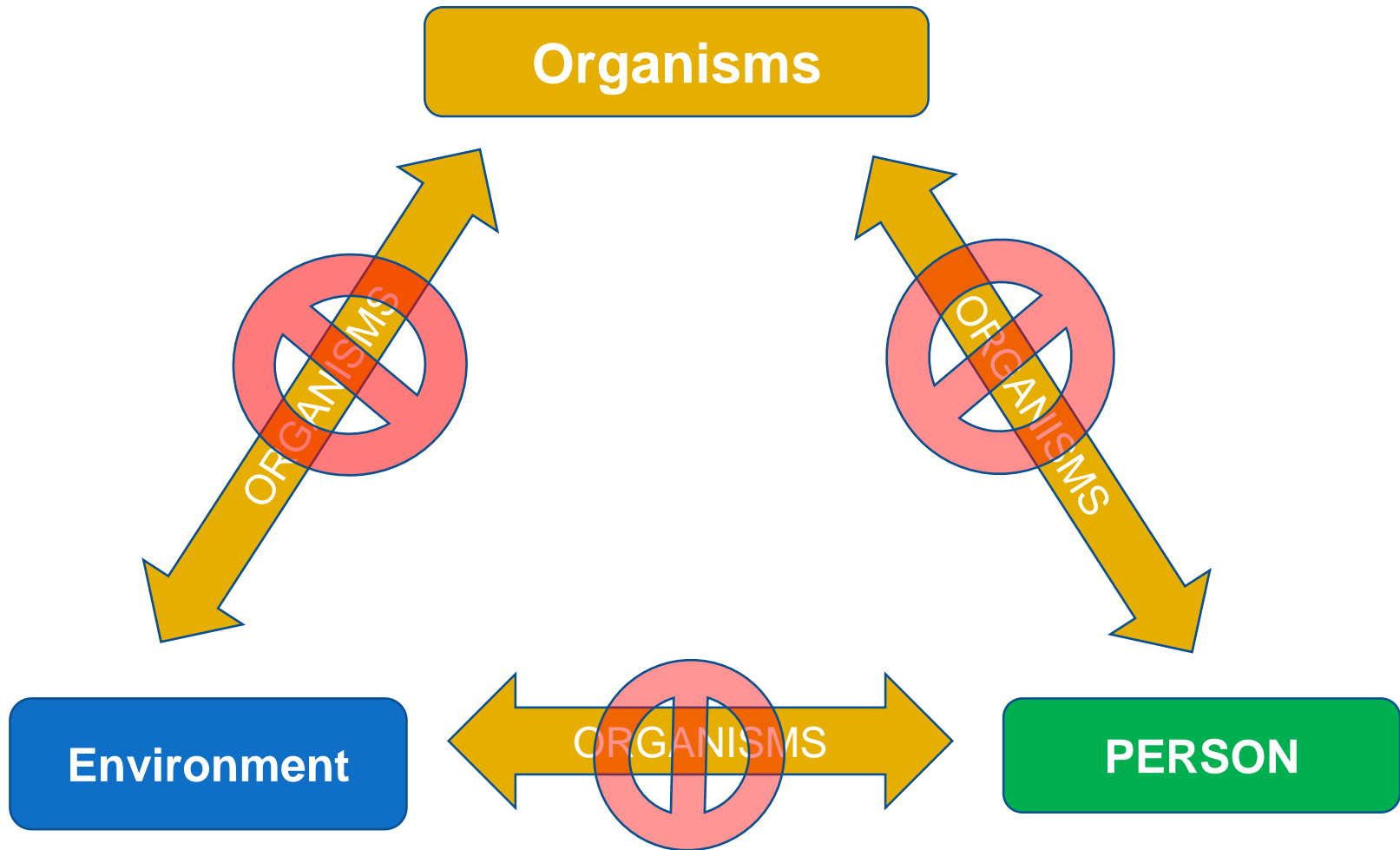# Selecting appropriate cleaners and disinfectants

Learning Objectives

- Describe how the healthcare environment can become a reservoir for organisms that cause infections/colonization
- Recognize common pathogens in the Chicagoland area affecting long-term care facilities (LTCF)
- Differentiate appropriate chemicals and different delivery systems for different types of environmental cleaning and disinfecting
- Identify strengths and gaps in cleaning and disinfecting processes
- Select appropriate cleaning and disinfecting products taking into account target pathogens and facility specific needs
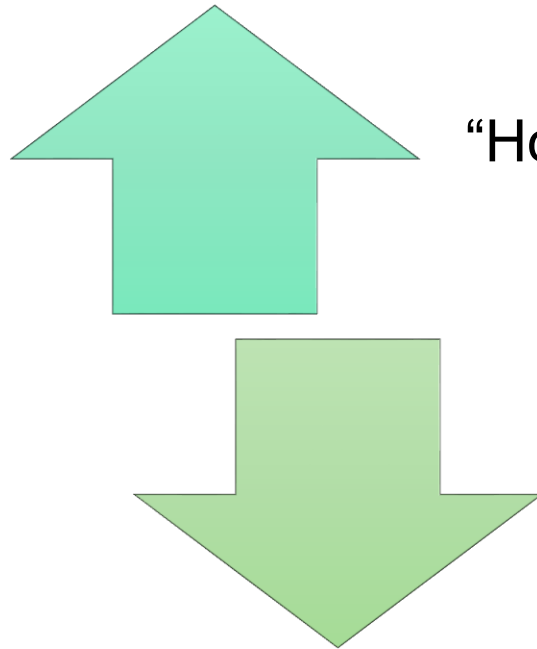
Epidemiologic Triangle

Organisms

Environment

PERSON

ORGANISMS

ORGANISMS

ORGANISMS

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Equipment and Environment Not Cleaned

"Housekeeping's Job"

"Nursing's Job, Therapy's Job"

J. Kirk et al. / American Journal of Infection Control 44 (2016) 1095-101

Healthcare Zone

Patient Zone
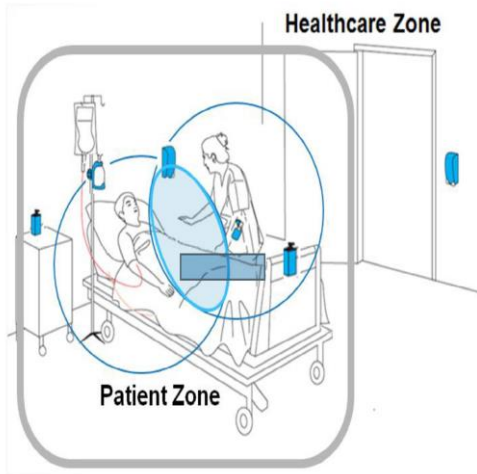
Mommarazzi Images © 2017

First Global Patient Safety Challenge
Clean Care is Safer Care

Hand Hygiene

Images, Kirk, et al., WHO, Yay Images

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MEMORANDUM

TO: Long Term Care Facilities, Local Health Departments, Illinois Department of Public Health Regional Health Officers, Long Term Care Ombudsman

CC: Office of Health Care Regulation; Division of Infectious Diseases

FROM: Jennifer E. Layden, MD, PhD, Chief Medical Officer and State Epidemiologist
Erica Runningdeer, MSN, MPH, RN, HAI Prevention Coordinator, Division of Patient Safety & Quality

DATE: February 5, 2019

SUBJECT: Use of Alcohol-Based Hand Rubs for Hand Hygiene in Long Term Care Facilities

The purposes of this memorandum are to:

- Remind facilities that alcohol-based hand rubs are the preferred method of hand hygiene when hands are not visibly soiled or contaminated with blood or bodily fluids; and

- Recommend that all long-term care facilities incorporate alcohol-based hand rub into hand hygiene programs in accordance with the Centers for Disease Control and Prevention (CDC) recommendations[1].

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Erica Runningdeer, MSN, MPH, RN, HAI Prevention Coordinator, Division of Patient Safety & Quality

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Table 1. From the Centers for Disease Control and Prevention's Guidance on Hand Hygiene in Healthcare Settings: *Two Methods for Hand Hygiene: Alcohol-Based Hand Sanitizer vs. Washing with Soap and Water*[4]

Use Soap and Water	Use an Alcohol-Based Hand Rub
- When hands are visibly dirty - After known or suspected exposure to *Clostridium difficile* if your facility is experiencing an outbreak or higher endemic rates - After known or suspected exposure to patients with infectious diarrhea during *norovirus* outbreaks - Before eating - After using the restroom - If exposure to *Bacillus anthracis* is suspected or proven	**For everything else**

Clean Gloves

Patient

Healthcare Personnel Glove Use
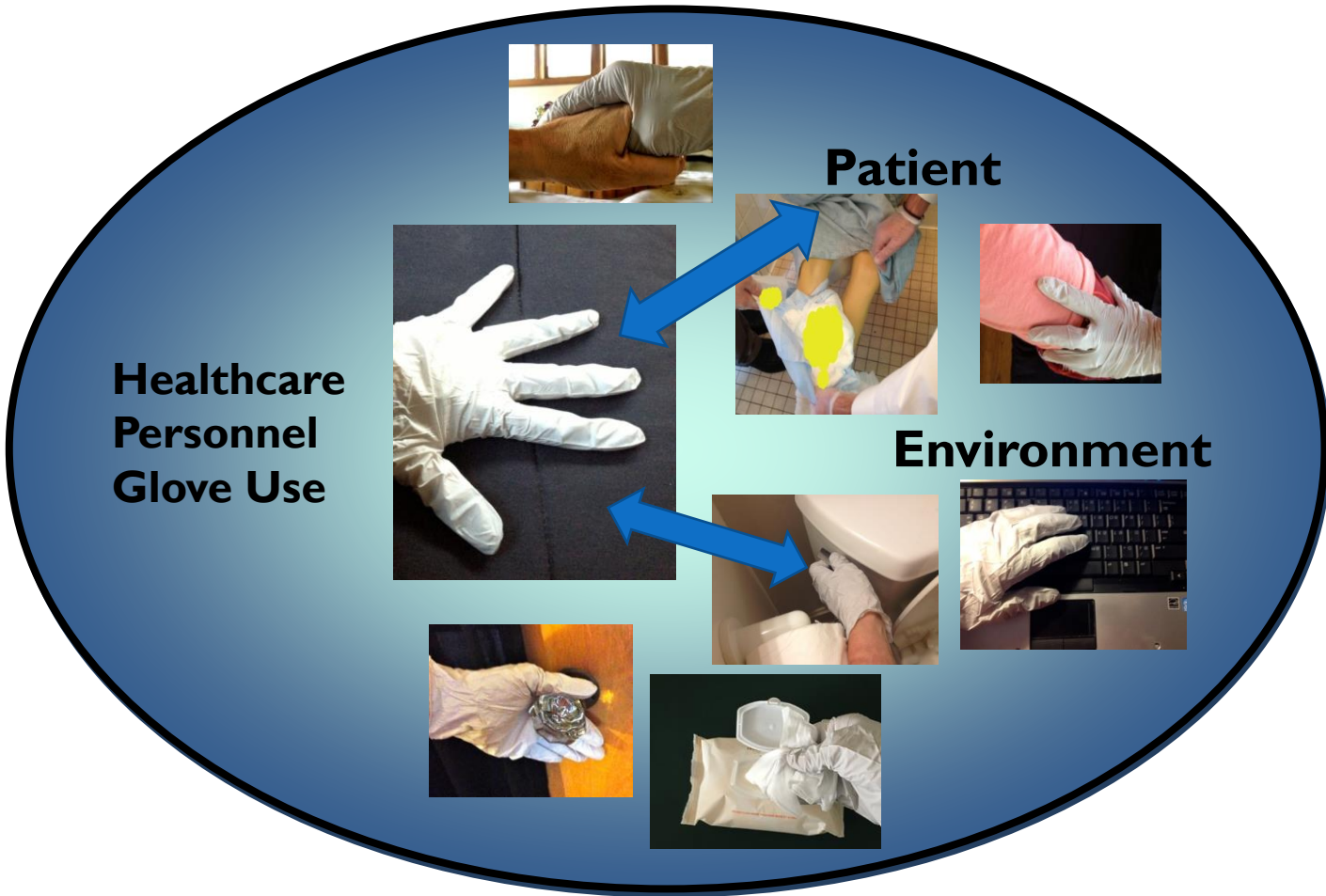
Environment

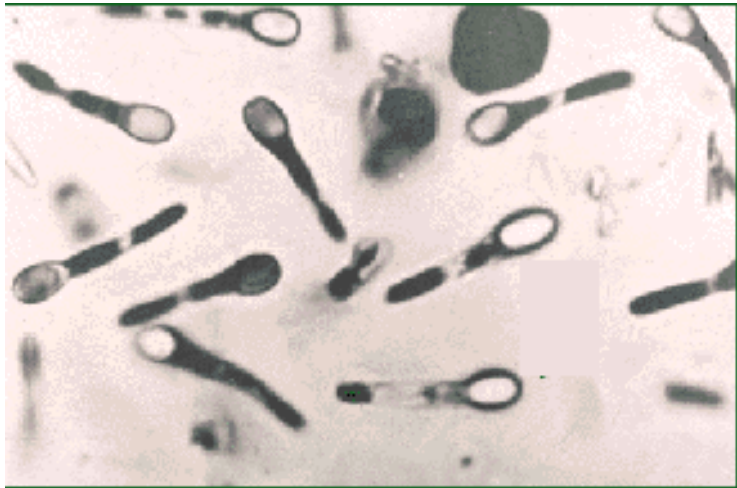Mommarazzi Images © 2017
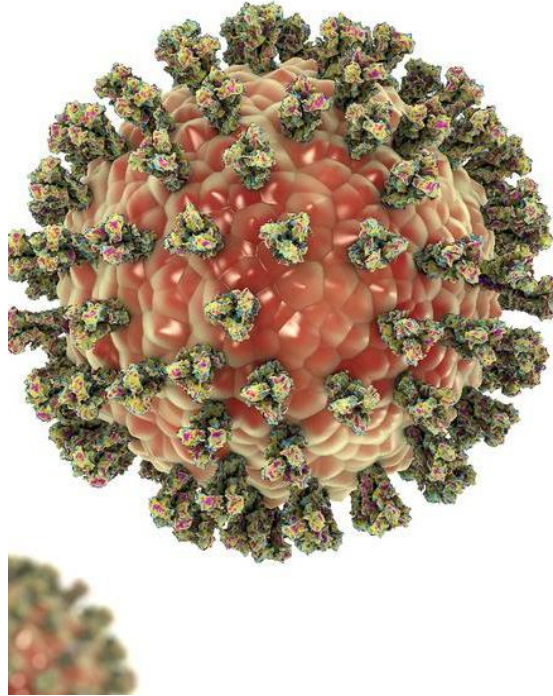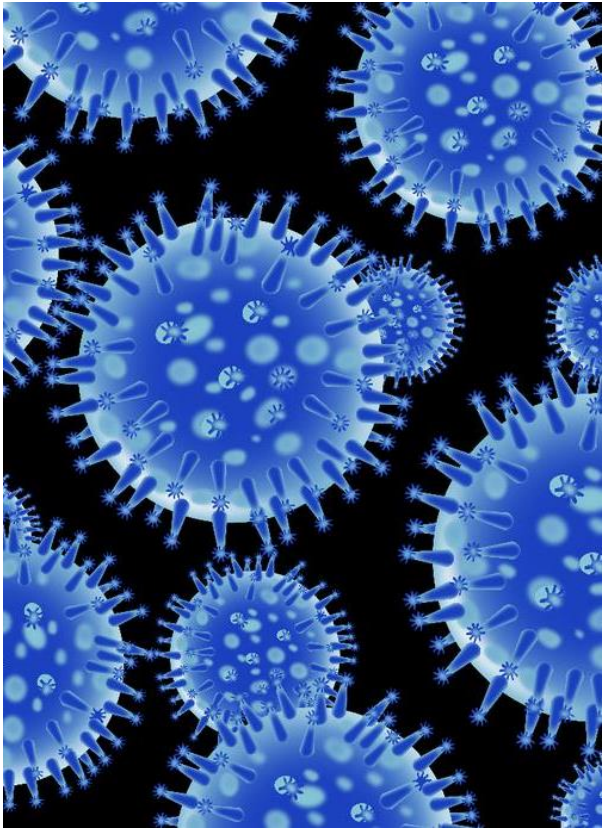
Organisms

Clostridioides difficile (C. diff)

- Found in the environment
- Spores are the problem when ingested

Spores germinate into

Source: University of Wisconsin-Madison Department of Bacteriology

Scanning Electron Micrograph of *Clostridium difficile*

Clostridium difficile adhering to the microvilli of the gut

Source: JA Hobot University of Wales College of Medicine UK

Why is *C. diff* difficult to control?

- Spores are a specialized type of germ
- Spores are highly resistant to heat and chemicals
- Common environmental disinfectants do not inactivate spores

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C. diff spores are resistant to common disininfectants

- Phenolics
- Quatinary ammonium solutions
- Alcohol
- Benzalkonium chloride

EPA-Approved Products Effective for *C. diff* Spores

- Increasing numbers of disinfectants that have a sporicidal claim (EPA List K)
- Products containing sodium hypochlorite (bleach)
- Pure bleach is **not** a cleaner – it is a disinfectant
- Bleach / detergent combinations act as both
- UV light
- Hydrogen peroxide vapor
- Contact time is important

Carbapenem-Resistant Organisms (CPO)

- Serious threat to public health
- 50% mortality in some studies
- Often carry genes that confer high levels of resistance to many other antimicrobials
  - Leaves very limited therapeutic options
- Have spread throughout many parts of the world
- Chicagoland area has many different types of CPO

CDC 2015 CRE Toolkit - Guidance for Control of Carbapenem-resistant *Enterobacteriaceae*

Carbapenemase-Producing Organisms (CPOs)

- Extensively drug resistant organisms (XDRO)
- Nearly impossible to treat
- Carbapenem-resistant *Enterobacteriaceae* (CRE) and
- Other carbapenemase-producing organisms (CPOs)
- Verona integron-borne metallo-β-lactamase (VIM)-producing *Pseudomonas*
- Other resistance mechanisms are labeled KPC, NDM, IMP and OXA-48

Fungal Yeast
Candida auris
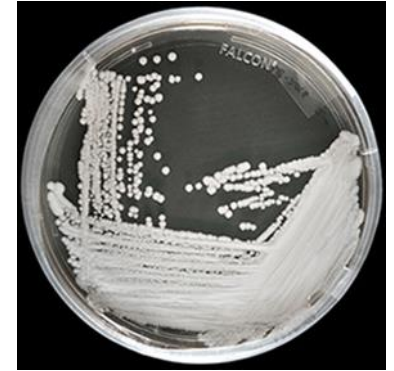
- Often multidrug-resistant
- Causes severe illness
- Difficult to identify with standard laboratory methods
- Can be misidentified in labs without specific technology
- Misidentification may lead to inappropriate management
- Causes outbreaks in healthcare settings
- Colonizes on skin and appears to be a persistent environmental contaminant

Emergence of *Candida auris*

Number of *C. auris* clinical cases
- ☐ 0
- 1
- 2-10
- 11-50
- 51-100
- 101 or more
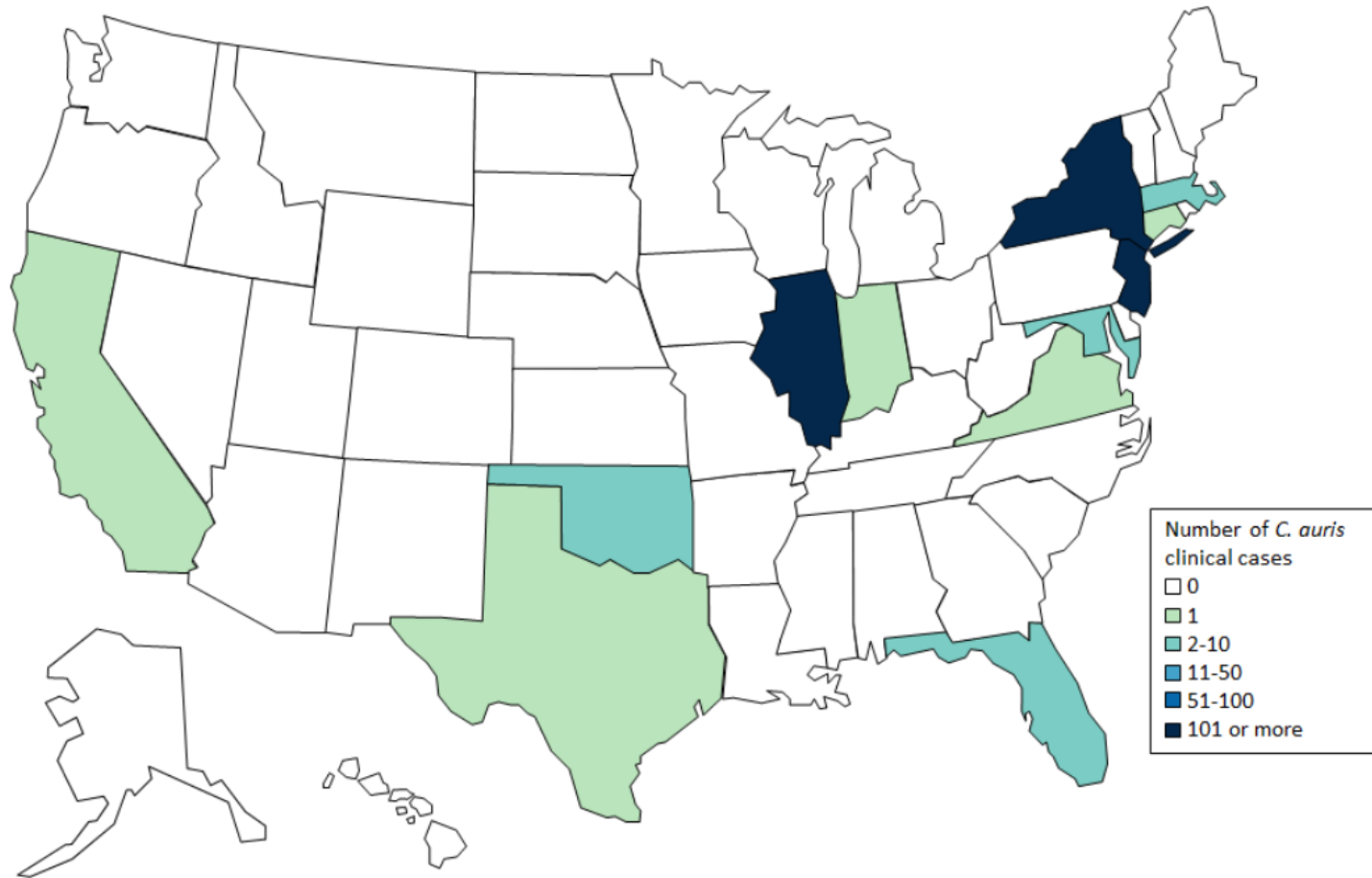
Cases are categorized by the state where the specimen was collected. Most probable cases were identified when laboratories with current cases of *C. auris* reviewed past microbiology records for *C. auris*. Isolates were not available for confirmation. Early detection of *C. auris* is essential for containing its spread in healthcare facilities.

Clinical cases of *Candida auris* reported by U.S. states, as of December 31, 2018

Characteristics of Patients Infected with *C. auris*

- 73% had a central venous catheter
- 61% had bloodstream infection
- 59% died
- 41% had diabetes mellitus
- 41% were receiving systemic antifungal therapy when *C. auris* was isolated
- 19 days — median time from admission to infection (interquartile range, 9–36 days)
- 51% had recent surgery
- Additional information on risk factors and transmission mechanisms needed

Lockhart, S. R., Etienne, K. A., Vallabhaneni, S., Farooqi, J., Chowdhary, A., Govender, N. P., & Berkow, E. L. (2016). Simultaneous emergence of multidrug-resistant Candida auris on 3 continents confirmed by whole-genome sequencing and epidemiological analyses. Clinical Infectious Diseases, 64(2), 134-140

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CDC Interventions: Preventing Spread of *Candida auris*

- Single-Patient Room

- Use Standard and Contact Precautions

- Hand Hygiene

- Screen contacts of newly identified case patients to identify *C. auris* colonization
    - Manage with infection control measures used for infected patients

- Audit cleaning and disinfecting procedures and use of chemicals

Efficacy of Disinfectants Against Spread of *Candida auris*

- EPA-registered sporicidal disinfectants (EPA List K)
  - Check CDC website for updates
- Some non-sporicidal EPA approved hospital disinfectants with EPA safety ratings of category IV
  - Minimal PPE required in use: gloves
  - Demonstrated over a $\geq 5 \log_{10}$ reduction when using ASTM E-2197-11 method (Cadnum et al., 2017)

Cleaning and Disinfecting for IPC of *C. auris*

- CDC recommends use of an Environmental Protection Agency (EPA)-registered hospital-grade disinfectant effective against *Clostridioides difficile* spores (List K agents)

- When List K agents are not feasible, following products led to a substantial reduction (≥ 4 log reduction) of *C. auris* in laboratory testing
  - Oxivir Tb
  - Clorox Healthcare Hydrogen Peroxide Cleaner Disinfectant
  - Prime Sani-Cloth Wipe
  - Super Sani-Cloth Wipe"

Source: CDC Control of Candida auris https://www.cdc.gov/fungal/candida-auris/c-auris-infection-control.html
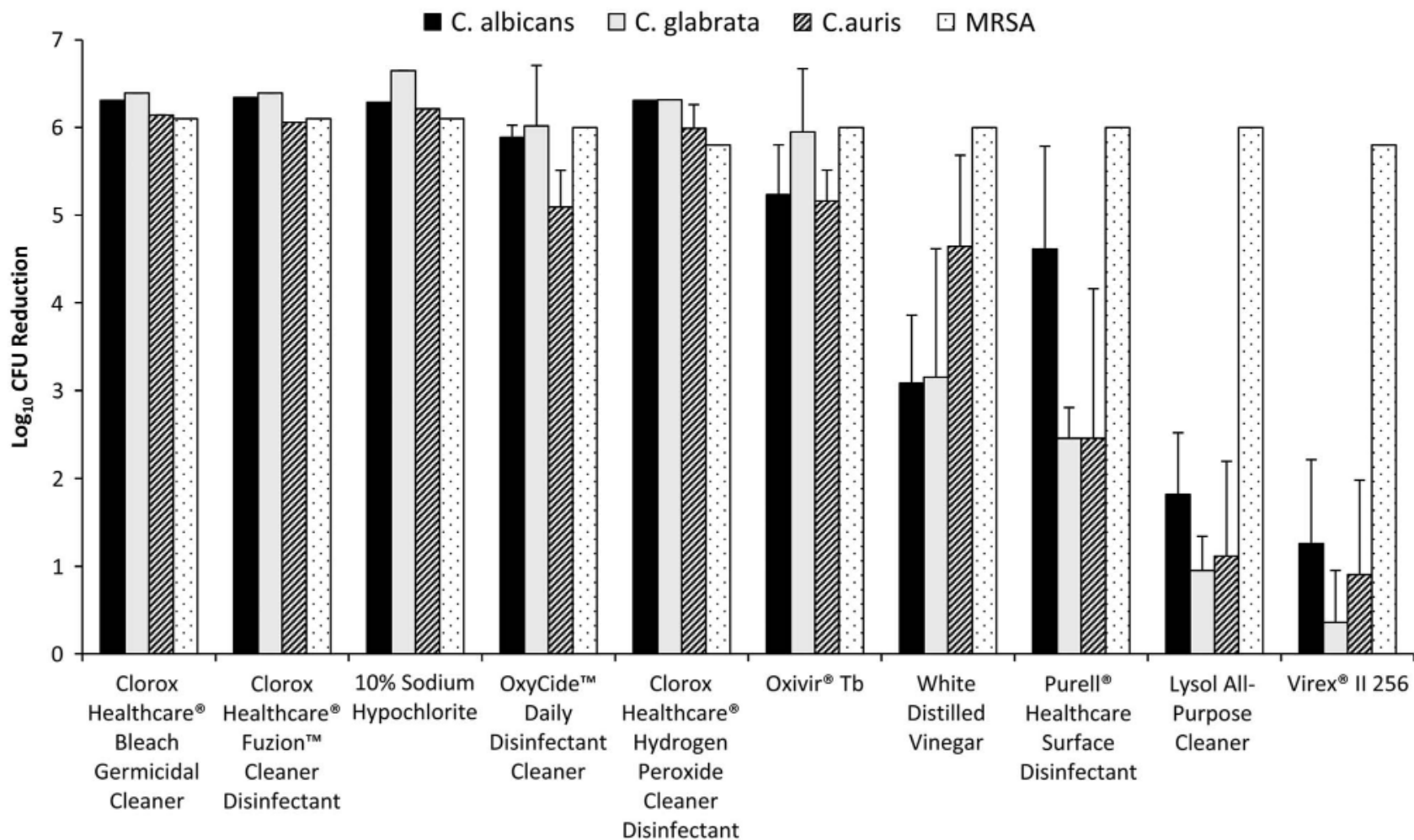
FIGURE 1. Mean log reductions for each of the disinfectants against the 3 *Candida* species and MRSA using the American Society for Testing and Materials (ASTM) Standard Quantitative Carrier Disk Test Method (ASTM E-2197-02).[7] Log reductions were calculated by subtracting viable organisms recovered after exposure to the disinfectants versus deionized water controls. Vinegar, Purell Healthcare Surface Disinfectant, and the 2 quaternary ammonium disinfectants were significantly less effective against the *Candida* species than against MRSA ($P \leq .02$). Error bars show standard error. MRSA, methicillin-resistant *Staphylococcus aureus*.

Environmental Cleaning and Disinfecting

Images: YAY Images, Mommarazzi Images © 2018

Ideal Disinfectant.

- Nontoxic and non-irritating
- Low toxicity rating
- Not damage surfaces
- Easy to use
- Acceptable odor
- Economical
- One step cleaner / disinfectant

Rutala and Weber, 2014

Cleaning and Disinfecting Product Analysis

Exercise:

What's My SDS Line?

Exercise: Selection of an Ideal Disinfectant

- Cleaner? Disinfectant? Both?
- Ready to use or requires dilution?
- What is the active disinfectant(s) (if present)
- EPA Registration Number
- Sporicidal? (on EPA List K)
- Contact Time (how do staff calculate?)
- Kill Claim (bactericidal, tuberculocidal, viricidal, fungicidal?)
- Toxicity as ready to use?
- PPE for the chemical?
- Cost?

Hidden Environmental Surfaces

Newer Hazards

Chicago Tribune

SATURDAY MAR. 17, 2018   SPORTS   BREAKING   MOST POPULAR   OPINION   ENTERTAINMENT   BUSINESS   BEST REVIEWS   ADVERTISING

Report of 4th recent Legionnaires' case at veterans home comes soon after Democrats call for more action

TRANSFORM YOUR SPACE

Developing a Water Management Program to Reduce *Legionella* Growth & Spread in Buildings

A PRACTICAL GUIDE TO IMPLEMENTING INDUSTRY STANDARDS

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

CDC

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Protecting health, improving lives.

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Home » Topics & Services » Diseases and Conditions » Diseases A-Z » Legionnaires' Disease

Alzheimer's Disease
Asthma   +
Cancer
Chronic Diseases   +
Diabetes   +

Legionnaires' Disease

*** IDPH and Illinois Department of Veterans' Affairs continue to collaborate with the Centers for Disease Control and Prevention (CDC) to help ensure the safety and well-being of residents and staff at the Illinois Veterans' Home in Quincy after outbreaks of Legionnaires' disease since 2015. IDPH requested epidemiological assistance from the CDC, who sent a team of environmental and infectious disease specialists to Quincy. The CDC released three reports on the outbreaks (see on the right menu under Publications).

Image: Picket Images

- Water reservoirs
- Bacteria
  - *Legionella* and other Gram-negative bacteria
  - Nontuberculous *Mycobacteria*
- Occasional fungi and viruses
- Waterborne outbreaks occurred in healthcare settings
- Emergence of new reported reservoirs
  - Electronic faucets (*Pseudomonas aeruginosa and Legionella)*
  - Decorative water wall fountains (*Legionella*)
  - Heater-cooler devices used in cardiac surgery (*Mycobacterium chimaera*)

Kanamori, Weber & Rutala (2016)

Legionnaires' Disease Is On the Rise 2000–2015*
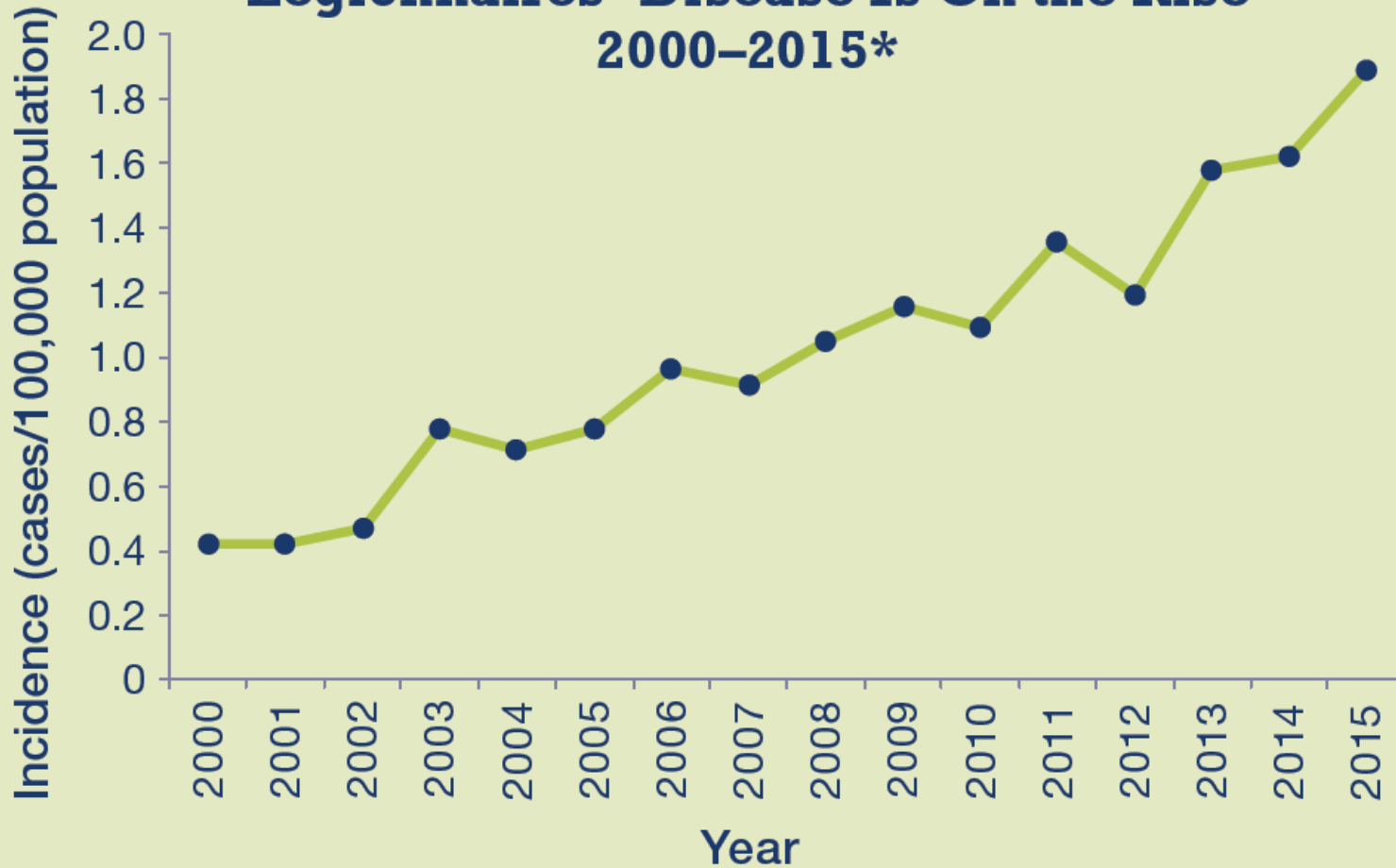
*National Notifiable Diseases Surveillance System

Source: CDC

Water Management Plan

Developing a Water Management Program to Reduce *Legionella* Growth & Spread in Buildings

A PRACTICAL GUIDE TO IMPLEMENTING INDUSTRY STANDARDS

Thank you!!!

Dburdsall@gmail.com

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2. Centers for Medicare and Medicaid Services (CMS). Reform of Requirements for Long Term Care Facilities. https://www.federalregister.gov/documents/2016/10/04/2016-23503/medicare-and-medicaid-programs-reform-of-requirements-for-long-term-care-facilities

3. Telligen Nursing Home Facility Assessment Tool. https://www.telligenqinqio.com/resource/our-work/nursing-home-care/nursing-home-care-resources/nursing-home-facility-assessment-tool/

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4. Center for Disease Control and Prevention (CDC). Infection Control Assessment Tools. https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html

5. Illinois Department of Public Health. Title 77, Part 300. Skilled Nursing and Intermediate Nursing Facilities Code. http://www.ilga.gov/commission/jcar/admincode/077/07700300sections.html

6. William A Rutala PhD, MPH. Disinfection and Sterilization. https://disinfectionandsterilization.org/

7. North Carolina Statewide Program for Infection Control and Epidemiology (SPICE). https://spice.unc.edu/

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12. Centers for Disease Control and Prevention (CDC). Standard Precautions for All Patient Care. https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

13. Illinois Department of Public Health (IDPH), Chicago Department of Public Health (CDPH). Prevention, Control, and Management of Carbapenem-Resistant Enterobacteriaceae in Long Term Care Facilities. http://dph.illinois.gov/sites/default/files/publications/management-cre-ltcf-040516.pdf and California Department of Public Health. Enhanced Standard Precautions (ESP) for Long-Term Care Facilities. http://publichealth.lacounty.gov/acd/docs/ESPforLTCFs_CDPH.pdf

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14. Occupational Safety and Health Administration. Standard 29 CFR 1910.1030 Bloodborne Pathogens. https://www.osha.gov/SLTC/bloodbornepathogens/standards.html

15. Illinois Department of Public Health. Title 77, Part 300 Skilled and Intermediate Nursing Facilities Code, Communicable Disease. http://www.ilga.gov/commission/jcar/admincode/077/077003000E10200R.html

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16. Illinois Department of Public Health Infectious Disease Reporting. http://www.dph.illinois.gov/topics-services/diseases-and-conditions/infectious-diseases/infectious-disease-reporting

17. Illinois Department of Public Health XDRO Registry. https://www.xdro.org/

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Cleaning and Disinfecting Equipment and Rooms

Objectives

- Identify appropriate equipment for different types of environmental cleaning and disinfecting
- Know when equipment should be changed, and how it should be stored
- Understand best practices in use of microfiber cloths and mops and reasons for use
- Choose appropriate equipment compatible with cleaning/disinfecting chemicals
- Identify frequently touched surfaces
- Be able to assign intervals for changing each piece of equipment

Equipment for Cleaning and Disinfecting

Inside cart

- Toilet tissue
- Paper towels
- Trash liners
- Soap
- Alcohol hand sanitizer
- Extra clean cloths
- Extra clean high duster heads

Equipment for Cleaning and Disinfecting

Outside cart

- Mop handle
- Mop bucket
- Mops
- High duster
- Dust Pan
- Broom
- Bag for collecting soiled mops and cloths
- Wet floor signs

Equipment for Cleaning and Disinfecting

Top of cart

- Chemicals including window cleaner, EPA-registered disinfectant
- Cleaning cloths in container
- Bowl mop with container
- PPE Gloves
- Wipes if used
- Scraper
- Carpet spot cleaners if used

EVS Cart Checklist

- Checklist development
- Where to place for EVS team members
- Laminate

Opportunity at my own facility

Microfiber

- Absorbs seven times its weight in water
- With water, removes 98.9% of bacteria from smooth surfaces
- Can be laundered and reused 400-500 times

Microfiber

- Dries 3 times faster than traditional cotton cloth

- Reduces chemical usage significantly compared with cotton mops or cloths

- Much safer ergonomically for EVS team members

Frequently Touched Surfaces

- Determine your facility's frequently touched surfaces

- CDC website has comprehensive list

- Provide education to EVS team at regular intervals

- Demonstrate efficacy with validation technologies

- Interval assignment for equipment changes

Validation

DAZO-fluorescent marking

ATP-luminescence

Validation

Validation information

- Utilize as an educational tool not punitive

- Select associated software for technology so you can trend performance

- Share the results with facility leadership as performance indicator

Resident room cleaning

Top to bottom

Cleanest to dirtiest

Uni-directional
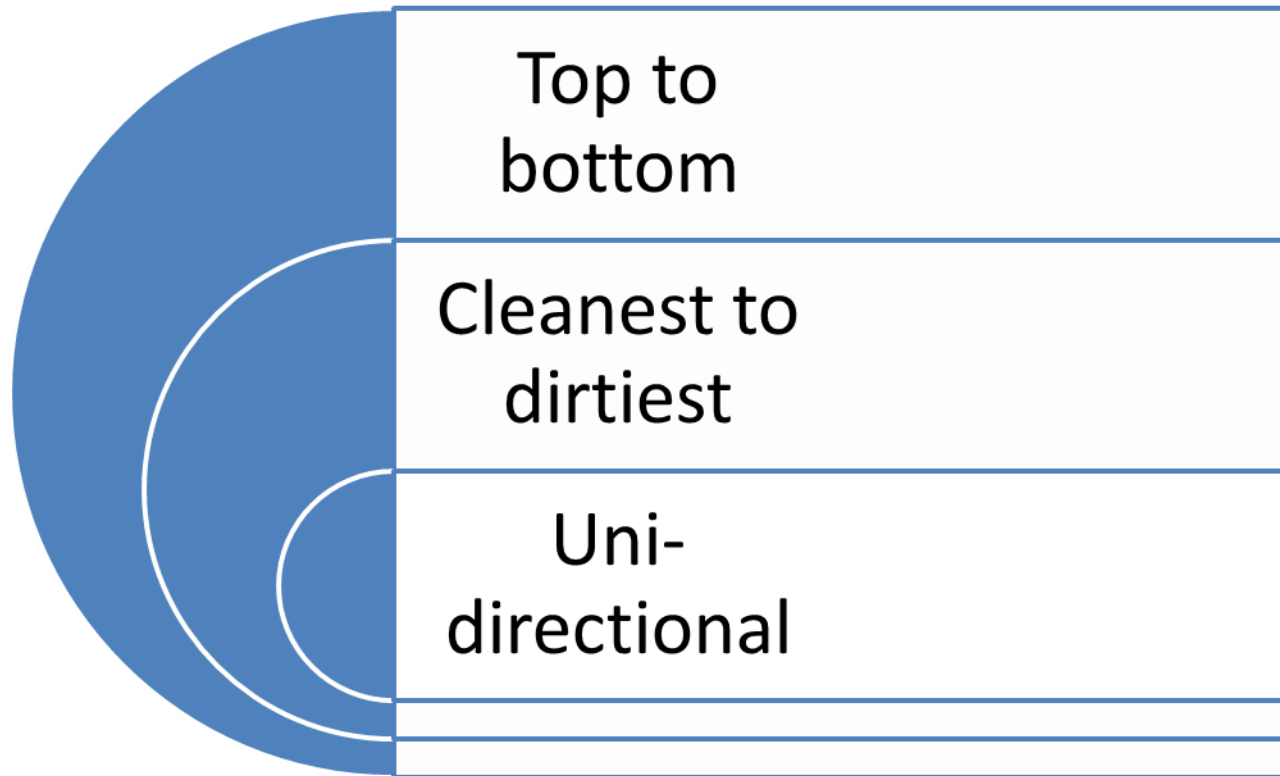
Tools for successful EVS leaders

- Team member competency

- Assignment checklists

- Development of "who cleans what matrix" in collaboration with infection prevention, nursing and medical equipment management
    - Don't forget instructions for use

Competency

Employee:		Title:		Dept/Unit:
Validator:		Title:		

Validator: (Check one) ☐ A:Preceptor ☐ B:Staff Educator ☐ C:Clinical/Shift Mgr ☐ D:Director ☐ E:Product Rep/Vendor ☐ F:ARNP ☐ G:Other (specify)

Self Assessment Frequency	Self Assessment Experience	Population Served	Validation Method	Level of Competence
1. Rarely observed/Never done 2. Rarely done, < 6 times/year 3. Occasionally done, 1-2 times/month 4. Frequently done, daily or weekly	A. None B. Limited C. Moderate D. Proficient	1. Neonate 2. Infant/Toddler 3. Child 4. Adolescent 5. Adult 6. Geriatric 7. Other considerations (gender , cultural, chronic disease, socioeconomic, specific needs etc)	A. **Cognitive**: test, verbalize actions or steps B. **Psychomotor**: demonstrates skill in lab or simulated setting C. **Psychomotor**: demonstrates skill in actual setting D. **Affective**: demonstrates appropriate attitude/behavior E. **Unable to Validate**: see follow up plan	1. **Novice** must perform under direct supervision 2. **Proficient**: can perform independently 3. **Advanced** : able to assess competence of others/able to teach

FREQ	EXP	Competency	Standard	Pop Served	Validation Valid. Method	Validation Level of Comp	Follow up Evaluation Valid. Method	Follow up Evaluation Level of Comp
		Daily Cleaning	Scheduled tasks completed within hours assigned.	1-7				
		1. Identifies and wears appropriate uniform.	Full uniform following department policy guidelines.					
		1. Cart set-up	Cart is set-up according to department policy.					
		2. Performs appropriate hand hygiene.	Perform hand hygiene.					
		3. Performs Thorough Cleaning Process.	Cleans resident rooms and ancillary areas. Follow appropriate disinfectant application with cleaning cloth and adheres to dwell times.					
			Follows procedures below to perform a daily cleaning of resident room:					

Room Cleaning

NAME: _____   DAILY ROOM CHECKLIST

Date:	Room #'s																
Room Type: V=Vacant/I=Isolation/ O=Occupied																	
AIDET	√																
Trash/Linen Removal	√																
Walls/Vents	√																
Window ledges/blinds	√																
Picture Frame/Clock	√																
Horizontal Surfaces	√																
Nightstand/Telephone	√																
Overbed table	√																
Bed rails/IV pole	√																
TV Remote/Call Button	√																
Shower/Curtain/Door	√																
TV Remote/Call Button	√																
Sinks/faucet	√																
Toilet/ seat/handle	√																
Bedside Commode	√																
Grab bars	√																
Dispensers	√																
Floor	√																
Corners/Edges/Baseboards	√																
Comments:																	

Check Hallway Floors@ _____   Condition: _____   & Checked@ _____   Condition: _____

Matrix: Who cleans what

Disinfection of noncritical patient care items and surfaces

ITEM	FREQUENCY OF DISINFECTION			Disinfectant	Responsible Person
	*After use on Each Patient	While in Use: QShift & when visibly soiled/dust	Weekly		
Patient Care Equipment					
Blood glucose monitors*	X			Purple/orange	**user**
Stethoscopes*	X			Purple/orange	**user**
Pulse Ox	X			Purple/orange	**user**
Electronic Thermometers	X			Purple/orange	**user**
Vital Sign Machine/Dinamap V100	X High touch areas b/w patients	Beginning of shift=full clean		Purple/orange	<u>User</u>-between patients/ <u>Tech</u>-beginning of shift
Bedside Monitors • **Space Lab** • **Nihon Koden**		X		70% Alcohol Wipe	**Nurse**
Portable Zoll monitors	X		X	Purple/orange	**user**
Wheelchairs	X			Purple/orange	**user**
Safe Patient Handling Equipment	X			Purple (No orange on Sit-to-Stand–corrosive)	**user**
Walkers/canes/crutches/gate belt	X			Purple/orange	**user**
White Med box in isolation room		X		Purple/orange	**User**
High Touch Surfaces Equipment					
Bed rails*		X		Purple/orange	**Nurse & Tech**
Bedside Table		X		Purple/orange	**Nurse & Tech**
Medication Storage Cart in Hallway			X	Purple/orange	**Nurse & Tech**
IV pumps	**X**	**X (Nurse)**		**Purple/orange**	**Materials Mgmt between patients/Nurse Q shift**

Instructions for use (IFU's)

- Manufacturer specifications
- Interpreting classes of chemicals
- Exploring the EPA website
- Engage Biomed, IP & Materials management

EVS Team training

- APIC video developed
- Need to have a consistent and comprehensive plan
- Training manual-key to success
- If you have a shadowing program—make sure it has definitive guidelines so it's successful

EVS Team member recognition

- Top Performers
- Meal tickets
- Movie tickets
- Celebrations
- Vendor donations
- Additions to standard uniforms
- Home-cleaning kits

EVS Team Member Recognition

National EVS Week
Environmental Services
The unsung heroes in healthcare

Monitoring Cleaning and Disinfection

Learning Objectives

- Identify strengths and gaps in cleaning and disinfecting processes

- Evaluate appropriate monitoring strategies, including direct observation and use of fluorescent marking

- Develop a process for sharing the marking results with direct care staff

Most Frequent CMS Citations Ranked: 2005-2014
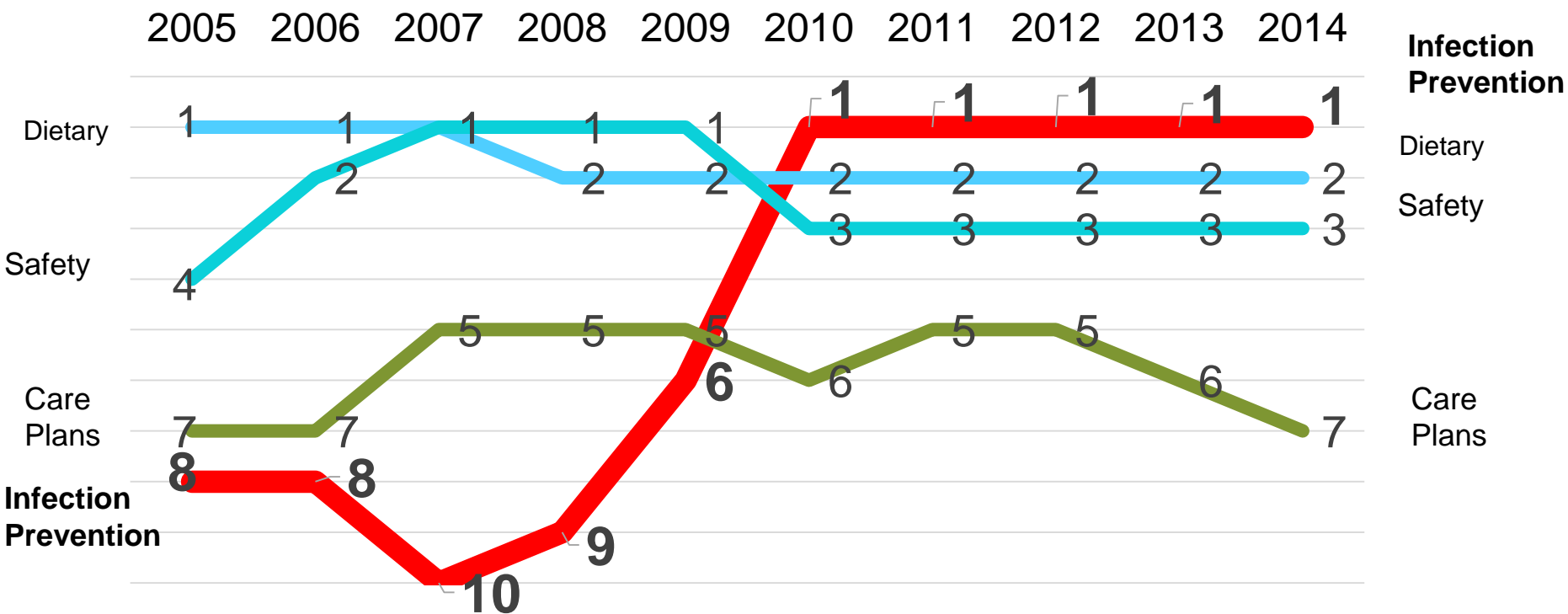
Source: CMS Nursing Home Data Compendium 2015

Break the Chain of Infection

Image: Pickit Free Image

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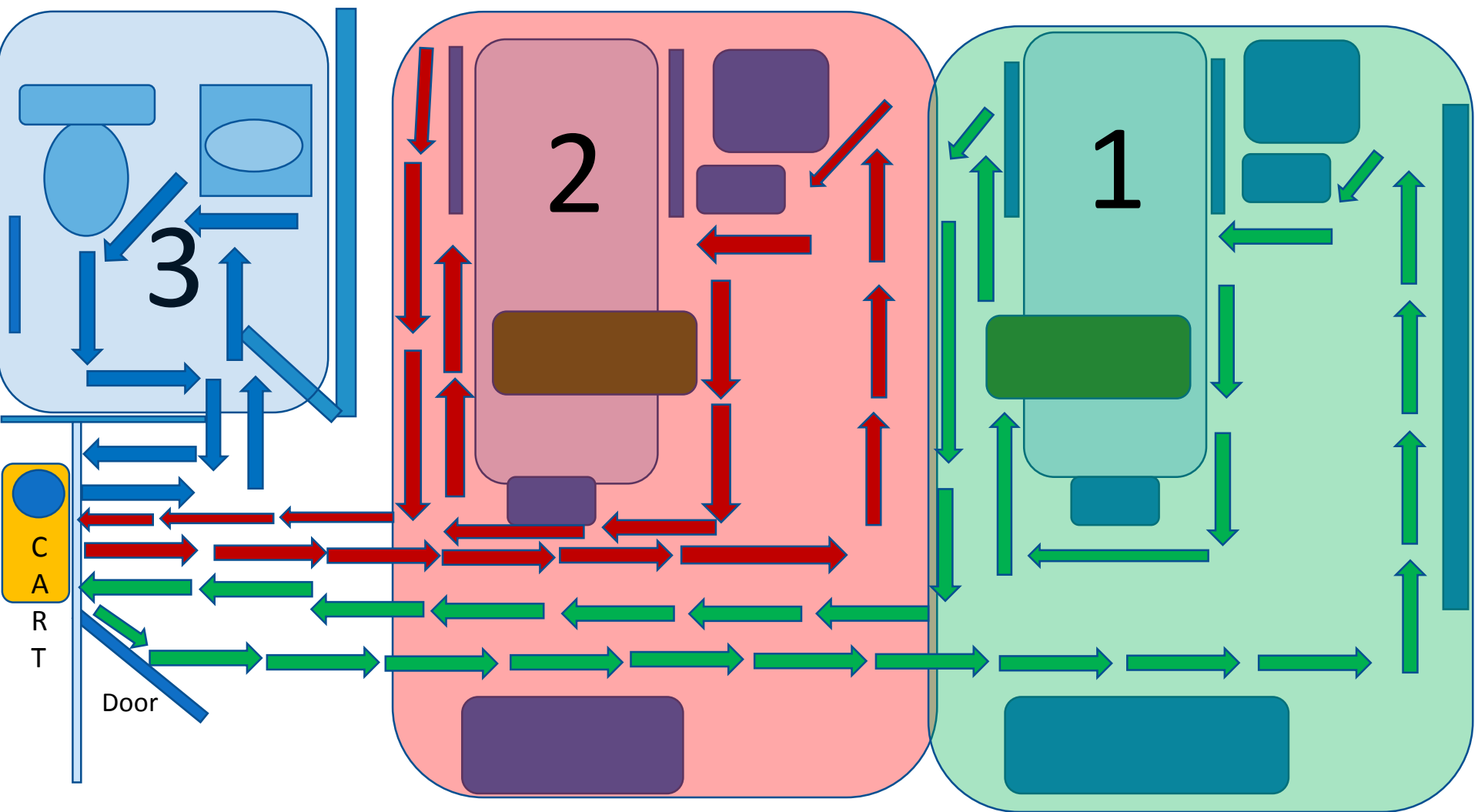
Equipment and Environment Not Cleaned
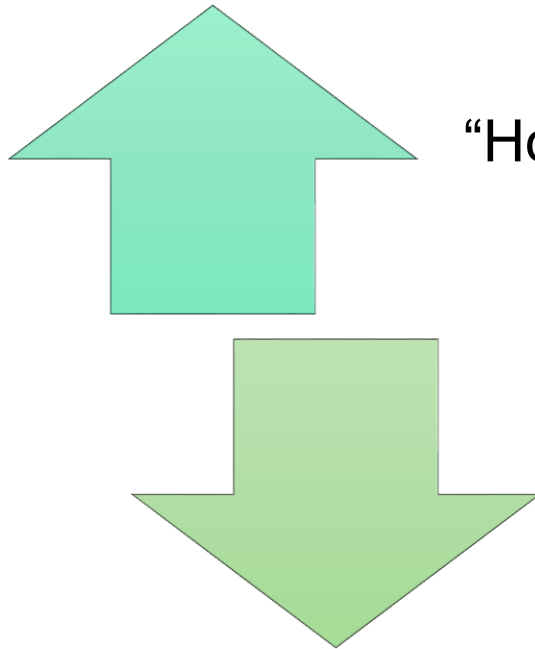
"Housekeeping's Job"

"Nursing's Job, Therapy's Job"

Clean Gloves

Patient

Healthcare Personnel Glove Use
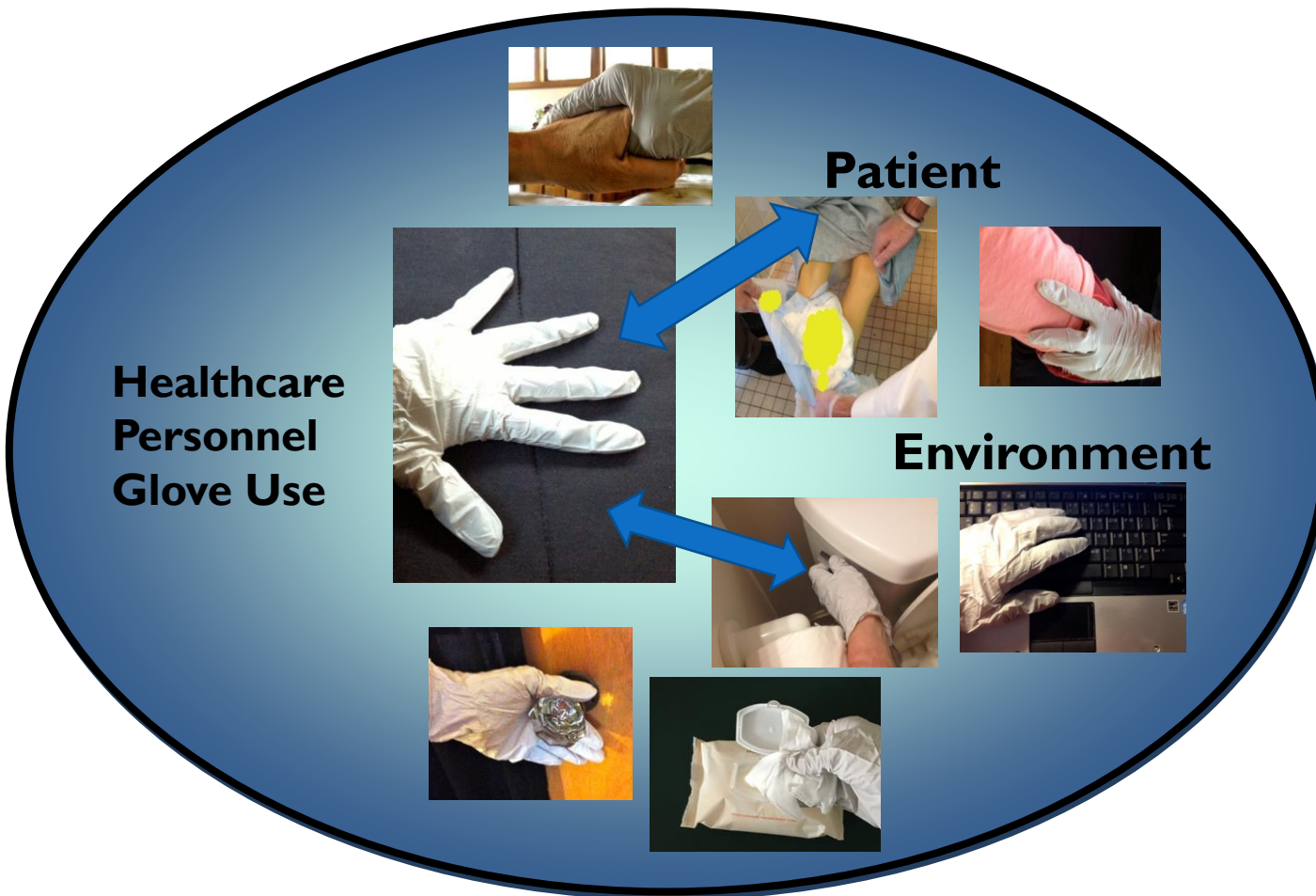
Environment

Mommarazzi Images © 2017

Epidemiologic Triangle

Organisms

Environment

PERSON

ORGANISMS

ORGANISMS

ORGANISMS
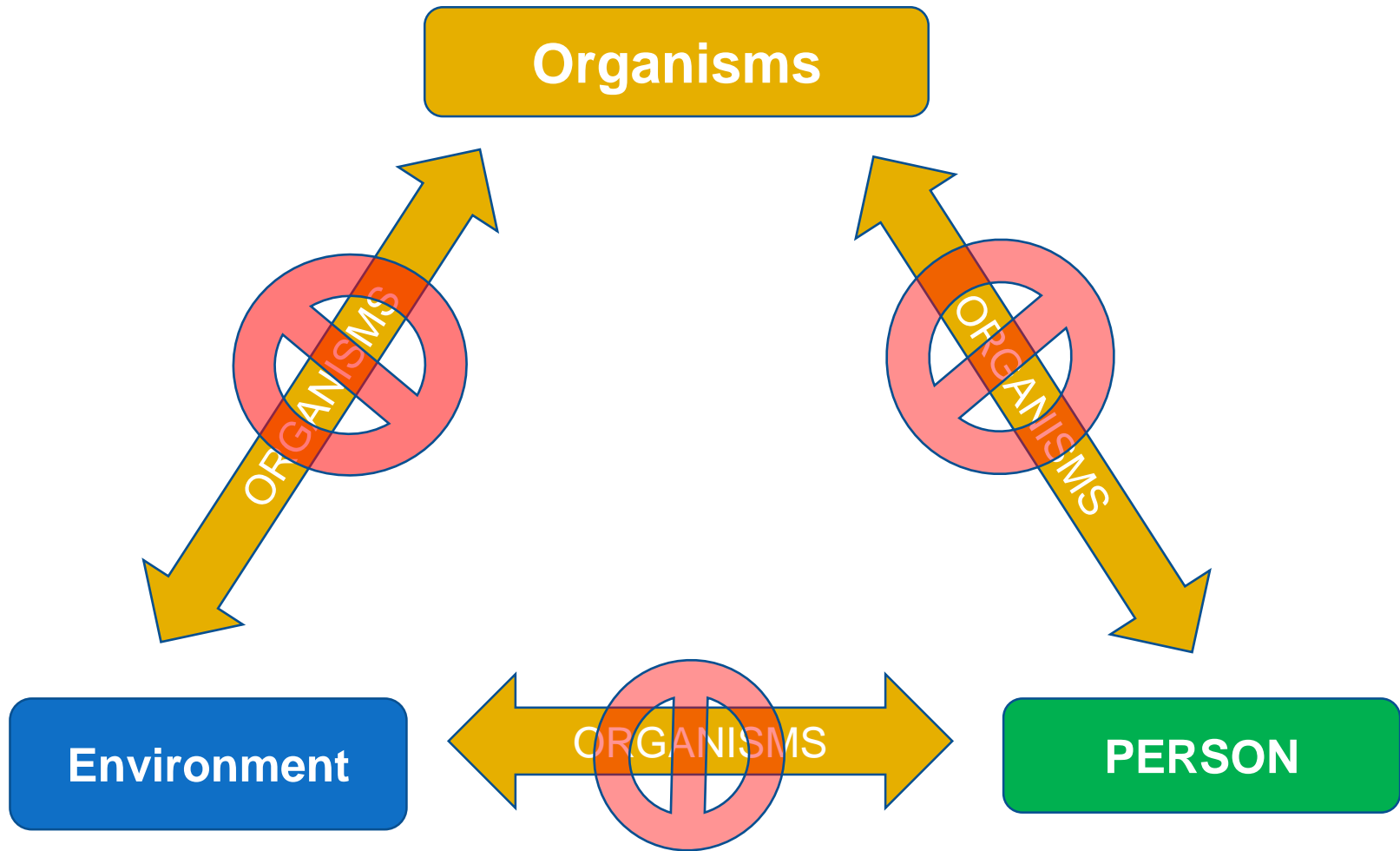
Clean Equipment and Environment?
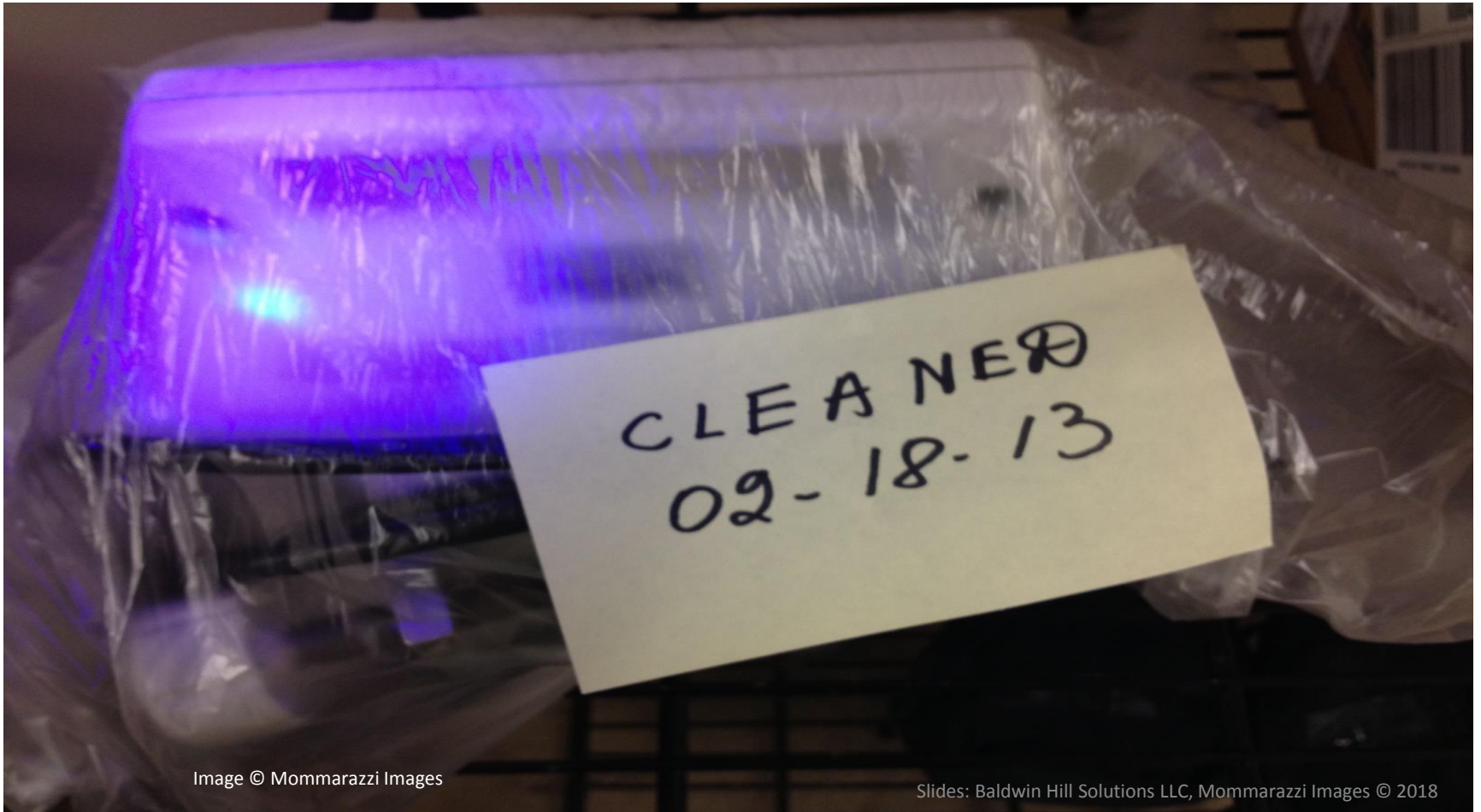
Image © Mommarazzi Images

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Procedure to establish baseline for activities relating to environmental cleaning and disinfecting

- Mark selected rooms in all facilities with nontoxic fluorescent marking solution using a different cotton applicator for each marked location

- Marked locations in six to eight patient zones per facility (bed, dresser and all patient equipment) were selected based on surfaces that were considered "frequently touched," and surfaces where *Candida auris* had been recovered on environmental point prevalence sampling, continued…

Procedure to establish baseline for activities relating to environmental cleaning and disinfecting

- Marking can either be done with fluorescent marking solution that is invisible when dry, tinted light blue so the EVS technicians can see which surfaces are considered frequently touched, or a combination of both as a double check

- If visible marking is done, suggest marking 70% with visible and 30% invisible

Invisible Marking

Each room marked using separate plastic bag with individual applicators saturated with laundry detergent that is free of dyes and perfumes
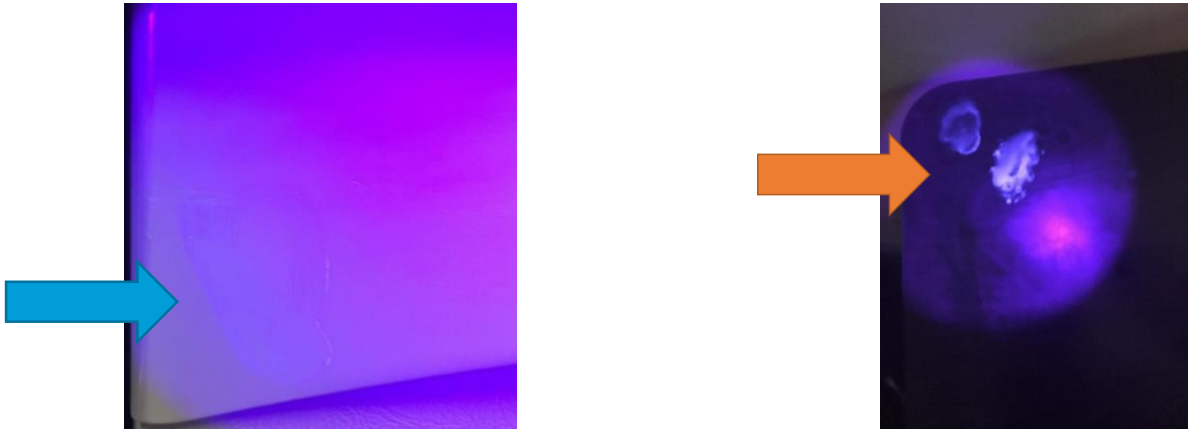
Example:

Wiped   and   Missed

Abbreviations

- B = Bed
- BC = Bed Control (rail and foot of bed)
- BPC = Blood Pressure Cuff
- BST = Bedside Table
- CL = Call light

- G = Glucometer
- CH = Chair
- D = Dresser
- DC = Dialysis chair
- FP = Enteral Feeding Pump control panel

More Abbreviations

- LAL = Low Air Loss controls
- OBT = Overbed Table
- OC = Oxygen Concentrator
- O2= Oxygen tank

- SR = Side Rail
- SP = Suction Pump
- R = Refrigerator
- T = Thermometer
- V = Ventilator panel
- WC = Wheelchair

Sample Room 1: Marked 11/19/18 at 7:16 am Read 11/19/18 at 3:45 pm

Missed

Wiped

BS

IV

IV

B C

TF

OB T

LAM

D

Linen

Med Cabinet
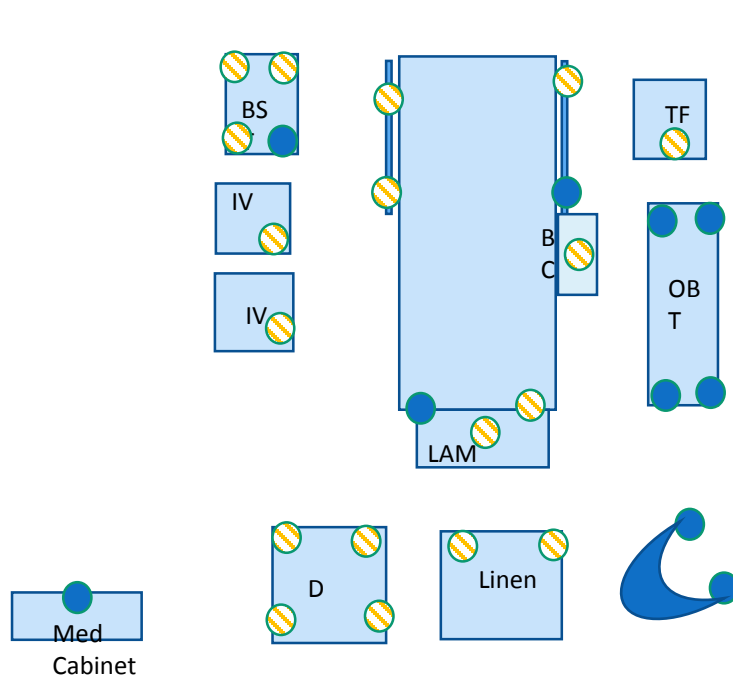
18 Missed
28 Marked Areas
64.3% Missed

10 Wiped
28 Marked Areas
35.7% Wiped

Sample Room 2: Marked December 5, 2018 5:40 am, Read 3:50 pm (Contact Precautions)

Legend:
Missed ⊘

Wiped ●

4 Missed
43 Marked Areas
9.3% Missed

39 Wiped
43 Marked Areas
90.7% Wiped
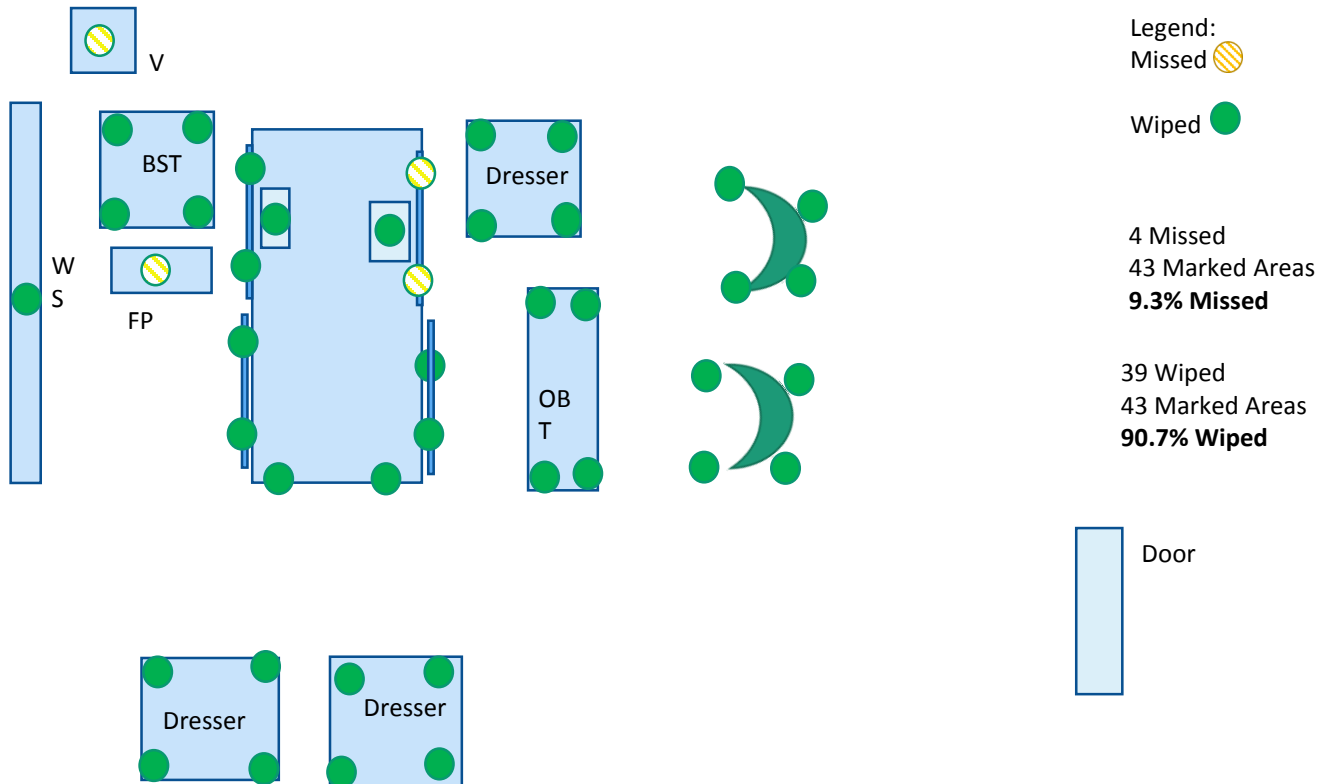
-Clean and Disinfect ALL the surfaces with Blue Dots!
-Remember to use a new cloth or folded side when you wipe a new object—wipe the WHOLE Surface
-ASK the residents and patients if you can move their items to clean and disinfect!
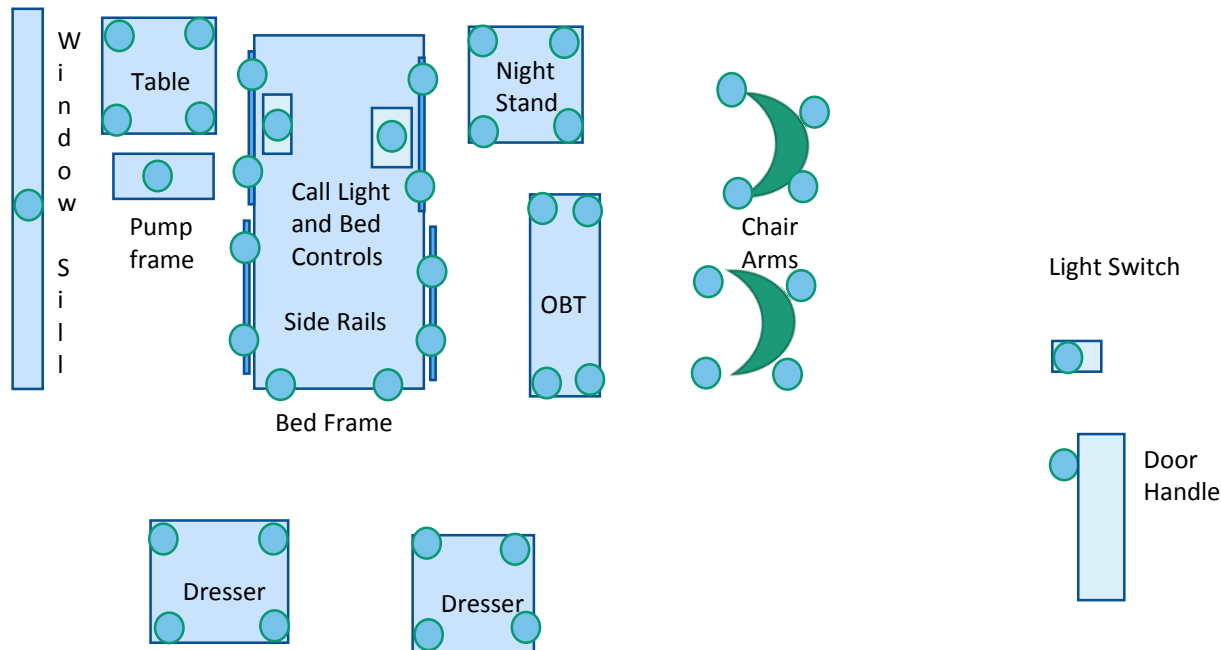
Templates

Pre-populated template
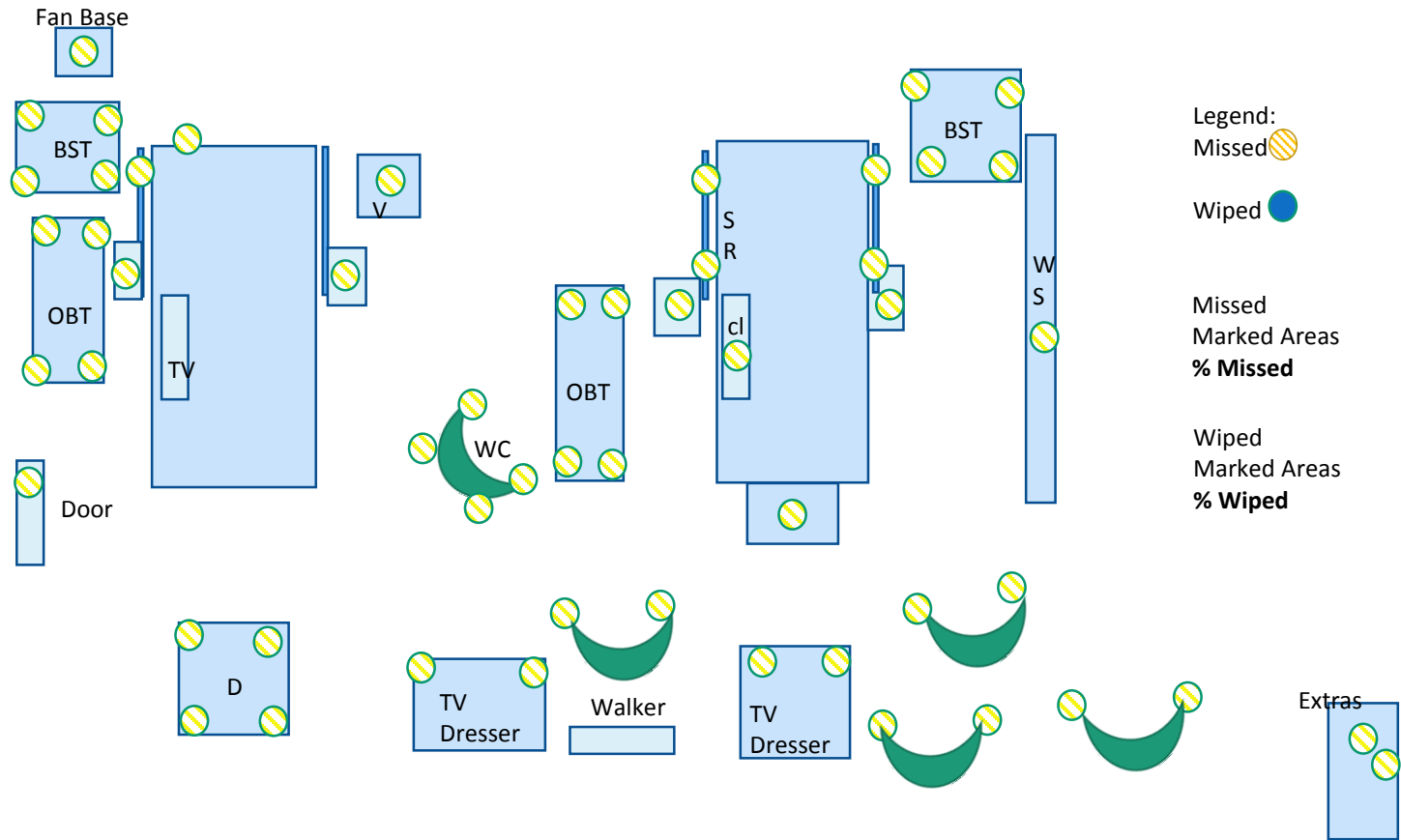
Room _____
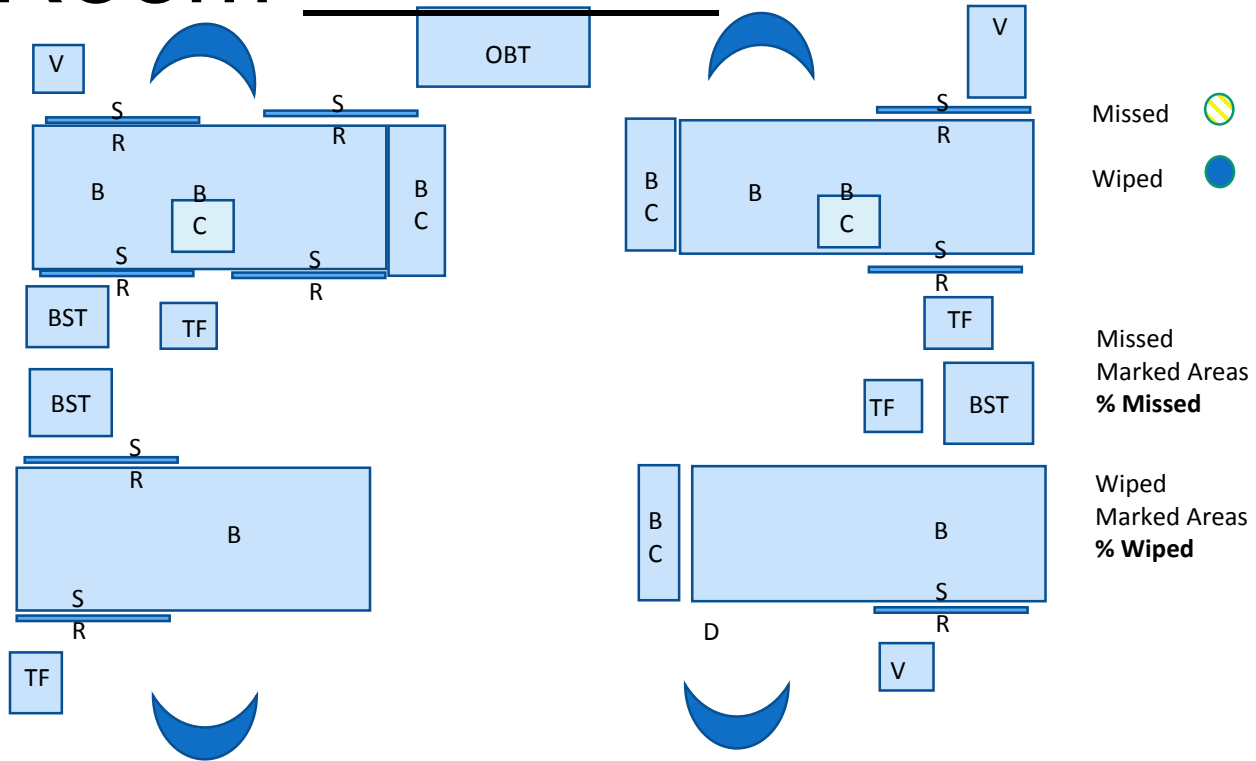
Room _____
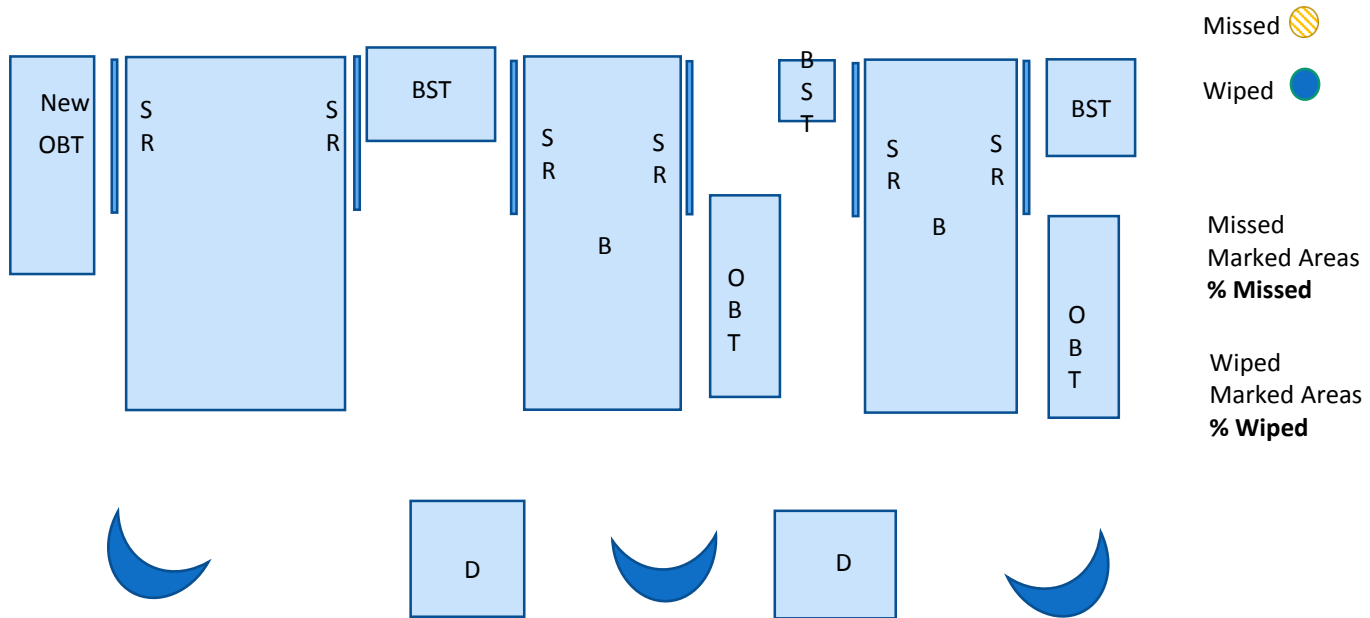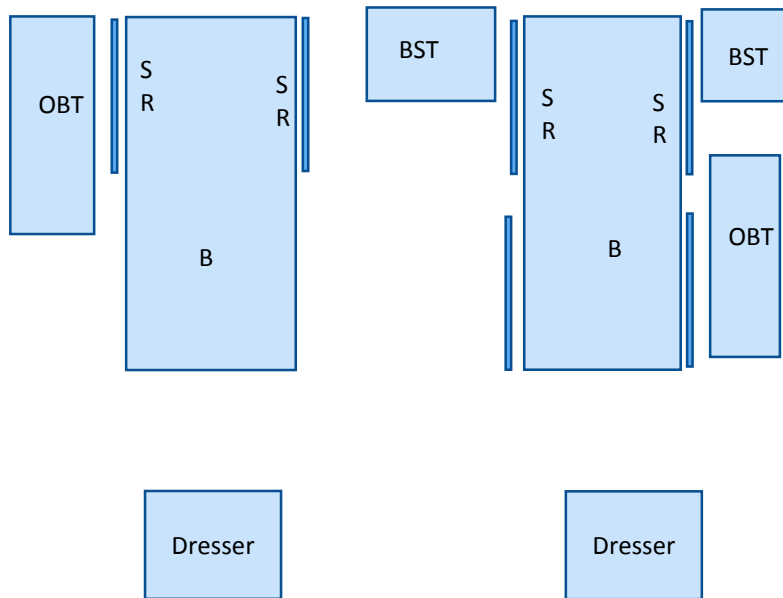
New OBT

S R

S R

BST

S R

S R

B

O B T

B S T

S R

S R

B

BST

O B T

D

D

Missed

Wiped

Missed
Marked Areas
% Missed

Wiped
Marked Areas
% Wiped

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Room _____

Missed 🟡

Wiped 🔵

Missed
Marked Areas
% Missed

Wiped
Marked Areas
% Wiped

OBT
S R
S R
B

BST
S R
S R
B
BST
OBT

Dresser

Dresser

Room _____
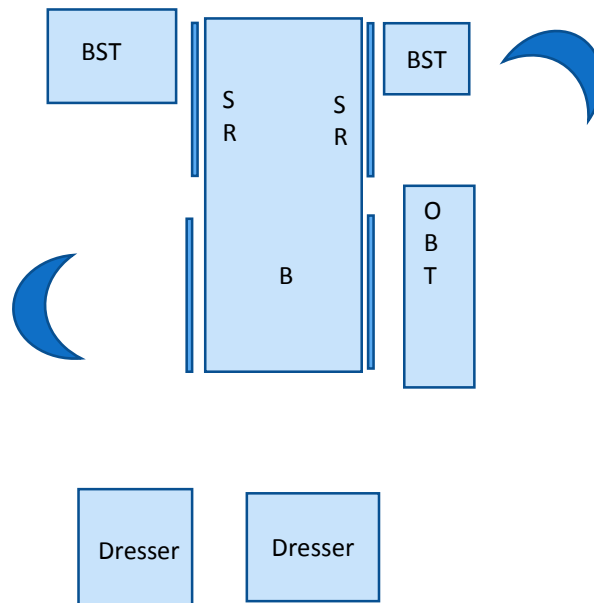
Missed 🟡

Wiped 🔵

Missed
 Marked Areas
Missed

 Wiped
 Marked Areas
Wiped

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Performance Improvement Project

Interdisciplinary Approach to Cleaning and Disinfection in EVS

Learning Objectives

- Support the use of the CMS Quality Assurance and Performance Improvement (QAPI) process

- Establish a Performance Improvement Project (PIP) with the goal of improving overall cleaning and disinfecting to ensure a clean and safe environment

- Identify appropriate members of an environmental services (EVS) PIP to improve cleaning and disinfecting practices

Terms

- **IP** — Infection Preventionist
- **IPCP** — Infection Prevention and Control Program
- **QAA** — Quality Assessment and Assurance
- **QAPI** — Quality Assurance Performance Improvement
- **PIP** — Performance Improvement Project

Federal Register Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities Final Rule: 10/4/16.

Process Change

- Preventing transmission of multidrug-resistant organisms (MDRO) requires changing the culture of your long-term care facility

- Multidisciplinary collaboration is the key to success

- Create a culture that supports and promotes infection prevention behaviors

- Empower staff to make changes

Must Address: Services and Resources

- Therapies and pharmacy
- Contracts, memorandums of understanding
- Third party agreements to provide services or equipment
- Both normal operations and emergencies
- Health information technology resources
- Managing patient records (EHR)
- Electronic sharing of information with other organizations

Image: Pixabay

6

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AHRQ: Take the Pledge

Performance Improvement Project

Selecting Equipment and Supplies

Exercise

- You are responsible for a clean, safe environment in your long-term care community

- Your interdisciplinary team has noticed there are more residents and patients with Carbapenem-Producing Organisms (CPO) and *Candida auris* staying in your long-term care community

- The public health department has determined that your long-term care community needs to respond

QAPI Performance Improvement Project (PIP)

- Project: Appropriate cleaner/disinfectants at the point of care on resident/patient units

- Problem to be solved: Staff do not have appropriate cleaner/disinfectants at the point of care that kill the organisms found in our environment

- Staff have also not been assigned to specific cleaning/disinfecting responsibilities and have not been held accountable for cleaning and disinfecting equipment and surfaces they use

- There is one EVS technician for every 35 rooms

Room Cleaning Observation
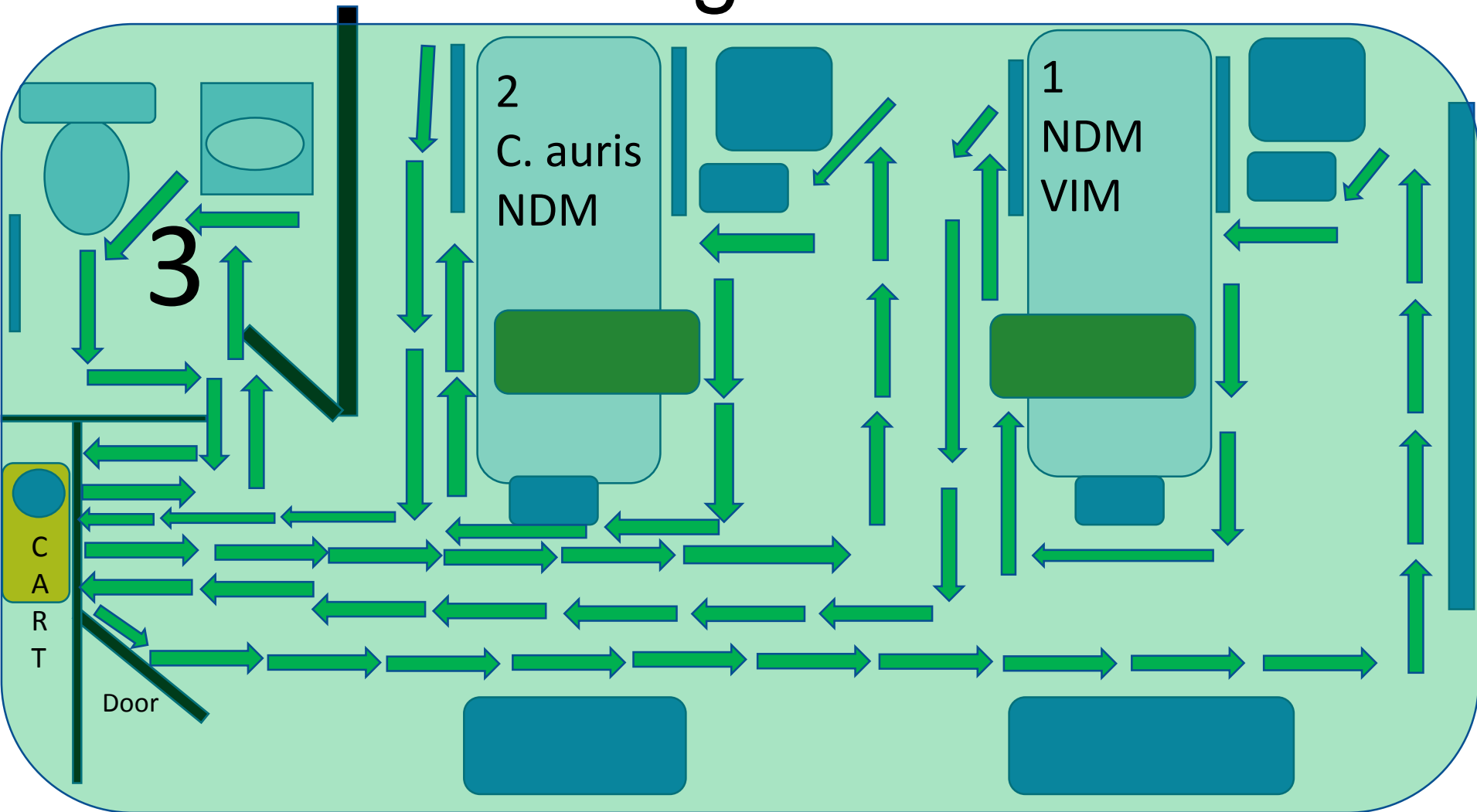
Observations:

- All-purpose, lavender-scented cleaner liquid solution on housekeeping (EVS) carts

- Autofill dispensers are empty on two units

- An EVS technician is observed pouring bleach into a bucket filled with another chemical without measuring bleach and without wearing PPE

- The disinfectant used is not effective against *Candida auris* or *Clostridioides difficile* (*C. diff*)

- Disinfecting wipes are locked up

- There is no EVS staff on nights and the housekeeping closets are locked

Summary

- Use the CMS and AHRQ toolkits
- Ensure staff have appropriate cleaning and disinfecting chemicals where they need them when they need them
- Cleaning and disinfecting is an interdisciplinary process
- The goal is a safe, clean environment
- Thank you!