Environmental Cleaning in Healthcare Facilities

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Environmental Cleaning

Objectives

• Discuss environmental cleaning results from the long-term care ICAR assessments
• Review the process for CMS environmental observations
• Identify types of microorganisms commonly found on environmental surfaces
• Discuss the Spaulding method of classifying categories for appropriate cleaning within the health care setting
• List types of disinfectants which are appropriate for routine and terminal cleaning
• Review EVS staff training and tools for audit and competency validation
Environmental Cleaning Results

ICAR (Infection Control and Response) Results: 2016-2018
## Environmental Cleaning Results (n=32)

<table>
<thead>
<tr>
<th>Environmental Cleaning Question</th>
<th># of Yes Responses</th>
<th>% Yes Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written cleaning/disinfection policies which includes routine/terminal cleaning/disinfection of resident rooms</td>
<td>29</td>
<td>91%</td>
</tr>
<tr>
<td>Written cleaning/disinfection policies which includes routine/terminal cleaning/disinfection of rooms of residents on contact precautions</td>
<td>26</td>
<td>81%</td>
</tr>
<tr>
<td>Written cleaning/disinfection policies which includes cleaning/disinfection of high-touch surfaces</td>
<td>27</td>
<td>84%</td>
</tr>
<tr>
<td>Written cleaning/disinfection policies which includes handling of equipment shared by residents</td>
<td>28</td>
<td>88%</td>
</tr>
<tr>
<td>Policies/procedures that ensures reusable medical devices are cleaned and reprocessed appropriately prior to use on another patient</td>
<td>30</td>
<td>94%</td>
</tr>
</tbody>
</table>
## ICAR - Results

### Environmental Cleaning Results (n=32)

<table>
<thead>
<tr>
<th>Environmental Cleaning Question</th>
<th># of Yes Responses</th>
<th>% Yes Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel receive job-specific training/competency validation on cleaning/disinfecting procedures at time of employment</td>
<td>22</td>
<td>69%</td>
</tr>
<tr>
<td>Personnel receive job-specific training/competency validation on cleaning/disinfecting procedures annually</td>
<td>19</td>
<td>59%</td>
</tr>
<tr>
<td>Audits (monitors and documents) quality of cleaning/disinfecting procedures</td>
<td>23</td>
<td>72%</td>
</tr>
<tr>
<td>Provides feedback to personnel regarding the quality of cleaning/disinfecting procedures</td>
<td>22</td>
<td>69%</td>
</tr>
<tr>
<td>Supplies necessary for appropriate cleaning/disinfection procedures available</td>
<td>32</td>
<td>100%</td>
</tr>
</tbody>
</table>
CDC Guidelines and CMS Regulations and Observations
42 CFR 483.80 – Infection Control

• (iv) The physical environment, equipment, services, and other physical plant considerations that are necessary to care for this population; and

• (v) Any ethnic, cultural, or religious factors that may potentially affect the care provided by the facility, including, but not limited to, activities and food and nutrition services.

• (2) The facility’s resources, including, but not limited to,
   • (i) All buildings and/or other physical structures and vehicles;
   • (ii) Equipment (medical and non-medical);
   • (iii) Services provided, such as physical therapy, pharmacy, and specific rehabilitation therapies;
   • (iv) All personnel, including managers, staff (both employees and those who provide services under contract), and volunteers, as well as their education and/or training and any competencies related to resident care
42 CFR 483.80 – Infection Control

• (v) Contracts, memorandums of understanding, or other agreements with third parties to provide services or equipment to the facility during both normal operations and emergencies; and

• (vi) Health information technology resources, such as systems for electronically managing patient records and electronically sharing information with other organizations.

• (3) A facility-based and community-based risk assessment, utilizing an all-hazards approach.

• (f) Staff qualifications

• (1) The facility must employ on a full-time, part-time, or consultant basis those professionals necessary to carry out the provision of these requirements.

• (2) Professional staff must be licensed, certified, or registered in accordance with applicable State laws.
Summary of Important Points:

- Each facility needs an “infection control program”
  - Must be written
  - Primary goal is to prevent infection by use of five essential elements:
    - Prevention
    - Identification
    - Reporting
    - Investigating
    - Controlling Infection

- Proper linen care, storage, and removal

- Flu and pneumonia vaccines given to prevent illness
  - Flu vaccine to all residents and staff – mask policy for anyone who says no
  - Both pneumonia vaccines given to all residents and staff over 65 years of age

- Help in the development of an Antibiotic Stewardship Program

CMS Regulations  All Phase #2  Implemented by November 28, 2017
CMS Survey Requirements

- Go to https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/GuidanceforLawsAndRegulations/Nursing-Homes.html
- Click on “LTC Survey Pathways”
- Folder of all the survey requirements (personal communication, 2018)
## Guidelines and Regulations

### Critical Elements of CMS Environmental Observations

<table>
<thead>
<tr>
<th>Environmental Observation</th>
<th>Triggered From the Initial Pool Process</th>
<th>CE(s) to be Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation of Needs (Physical) - RI, RRI, RO</td>
<td>☐</td>
<td>1</td>
</tr>
<tr>
<td>Call Light Functioning – RI, RRI, RO</td>
<td>☐</td>
<td>2</td>
</tr>
<tr>
<td>Sounds Levels – RI, RRI, RO</td>
<td>☐</td>
<td>3</td>
</tr>
<tr>
<td>Temperature Levels – RI, RRI, RO</td>
<td>☐</td>
<td>4</td>
</tr>
<tr>
<td>Lighting Levels – RI, RRI, RO</td>
<td>☐</td>
<td>5</td>
</tr>
<tr>
<td>Clean Building – RI, RRI, RO</td>
<td>☐</td>
<td>6</td>
</tr>
<tr>
<td>Building and Equipment Good Condition – RO</td>
<td>☐</td>
<td>7 and 8</td>
</tr>
<tr>
<td>Homelike – RO</td>
<td>☐</td>
<td>9</td>
</tr>
<tr>
<td>Lack of Hot Water – RI, RRI, RO</td>
<td>☐</td>
<td>10</td>
</tr>
<tr>
<td>Linens – RI, RRI, RO</td>
<td>☐</td>
<td>11</td>
</tr>
<tr>
<td>Pest Control – Review if concerns are identified onsite</td>
<td>☐</td>
<td>12</td>
</tr>
<tr>
<td>Ventilation – Review if concerns are identified onsite</td>
<td>☐</td>
<td>13</td>
</tr>
<tr>
<td>Handrails – Review if concerns are identified onsite</td>
<td>☐</td>
<td>14</td>
</tr>
<tr>
<td>Other Environmental Conditions – Review if concerns are identified onsite</td>
<td>☐</td>
<td>15</td>
</tr>
</tbody>
</table>
Guidelines and Regulations

Homelike, Hot water, and Linens

Homelike: Review this CE if there are concerns with the resident’s room being homelike through observations.

☐ Interview staff if observations revealed the resident’s room is not homelike to determine how the facility has addressed the concern.

9. Are the residents allowed to have personal belongings, to the extent possible, creating a homelike environment?
   ☐ Yes  ☐ No F584  ☐ NA

Lack of Hot Water: Review this CE if there are concerns by the resident, representative, or through observations with the hot water being too cool.

☐ Interview staff if the resident or representative complained about the hot water being too cool or observations revealed the hot water in the resident’s room, bathroom, or bathing facilities is too cool to determine how the facility has addressed the concern.

10. Are water temperatures comfortable?  ☐ Yes  ☐ No F584  ☐ NA

Linens: Review this CE if there are concerns by the resident, representative, or through observations with the linens being soiled.

☐ Interview staff if the resident or representative complained about the linens being soiled or observations revealed soiled linens to determine how the facility has addressed the concern.

☐ Refer to the Incontinence or Infection Control pathways, as needed, for additional investigative guidance.

11. Are there clean bed and bath linens in good condition available for the resident?  ☐ Yes  ☐ No F584  ☐ NA
Infectious agents found in healthcare settings

Infectious Agents
# How Long Bacteria Last in the Environment

<table>
<thead>
<tr>
<th>Pathogen (Germ)</th>
<th>Survival Time on Dry Surfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter spp. (ACBA)</td>
<td>3 days – 5 months</td>
</tr>
<tr>
<td>Bloodborne pathogens (hepatitis)</td>
<td>&gt; One week</td>
</tr>
<tr>
<td>Clostridium difficile (spores)</td>
<td>5 months</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>1.5 hours – 16 months</td>
</tr>
<tr>
<td>Enterococcus (VRE and VSE)</td>
<td>5 days – 4 months</td>
</tr>
<tr>
<td>Klebsiella spp</td>
<td>2 hours - &gt; 30 months</td>
</tr>
<tr>
<td>Mycobacterium tuberculosis (TB)</td>
<td>1 day – 4 months</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa</td>
<td>6 hours – 16 months</td>
</tr>
<tr>
<td>Serratia marcescens</td>
<td>3 days – 2 months</td>
</tr>
<tr>
<td>Staph: MSSA, MRSA</td>
<td>7 days – 7 months</td>
</tr>
<tr>
<td>Streptococcus pyogenes (GAS)</td>
<td>3 days – 6.5 months</td>
</tr>
</tbody>
</table>

**Infectious Agents**

**Clostridioides difficile**

- Gram-positive, anaerobic bacillus bacteria that produces 2 exotoxins
- *C. difficile* causes - Antibiotic-associated diarrhea (AAD)
- *C. difficile* can causes:
  - Perforation of the colon
  - Sepsis
  - Death
- People with increased risk for this infection or colonization are:
  - Antibiotic exposure
  - Gastrointestinal surgery
  - Long stays in healthcare settings
  - Advanced age (CDC, 2012)
- Clean and disinfect surfaces using an EPA-registered disinfectant with a label claim against *C. difficile* spores (EPA List K)

Source: CDC
**Norovirus**

- Norovirus is a small, non-enveloped viruses
- Highly infectious and 2\textsuperscript{nd} most frequent cause of acute GI infections (Thompson, 2012)
- Symptoms include:
  - Nausea
  - Vomiting
  - Diarrhea
  - Stomach cramping
- Those most at risk include:
  - Young children
  - The elderly
  - People with other medical illnesses (CDC, 2018)
- Clean and disinfect surfaces using an EPA List G disinfectant (EPA, 2018)

**Source:** CDC
**Candida auris**

- Yeast that causes serious infections
- *C. auris* does not respond to commonly used antifungal drugs
- *C. auris* can cause:
  - bloodstream infections
  - wound infections
  - ear infections

- Those most at risk include:
  - recent surgery
  - diabetes
  - broad-spectrum antibiotic and antifungal use
  - long stays in healthcare settings
  - individuals with indwelling devices

- Clean and disinfect surfaces using an EPA List K disinfectant

(CDC, 2018)

Source: CDC
Categories for appropriate cleaning

Spaulding Classification
Spaulding Classification of Surfaces

1. Critical – objects which enter normally sterile tissue or the vascular system and require sterilization
2. Semi-critical – objects that contact mucous membranes or non-intact skin and require high-level disinfection, which kills all but high-levels of bacterial spores
3. Non-critical – objects that contact intact skin but not mucous membranes, and require low-level disinfection (CDC, 2017)
Antiseptics vs. Disinfectants

Antiseptics

• Regulated by the FDA
• Antiseptics help stop the growth of microorganisms and are used on living tissue
• Examples:
  • Chlorohexidine
  • Peroxide
  • Alcohol

Disinfectants

• Regulated by the EPA
• Disinfectants help stop the growth of microorganisms and are used on non-living items
• Examples:
  • Chlorine
  • Hypochlorite
  • Quaternary ammonium
Noncritical Patient-Care Items

- Noncritical patient-care items are items that contact intact skin, but not mucous membranes.
- Examples include:
  - Bedpans
  - Blood pressure cuffs
  - Crutches
  - Computers (Rutala, 2017)

- Clean and disinfect using a low to intermediate level disinfectant depending on the nature and degree of contamination (DHHS, 2017)
Noncritical Environmental Surfaces

- Noncritical environmental surfaces are surfaces frequently touched by hands
- Examples include:
  - Bed rails
  - Bedside tables
  - Patient furniture
  - Floors
  - Mops
  - Reusable cleaning cloths (Rutala, 2017)

Clean and disinfect using a low to intermediate level disinfectant depending on the nature and degree of contamination (DHHS, 2017)
Training Environmental Services
EVS Staff Training Flow Chart

Contractual Staff

- Contracted company ensures employee is competent in job abilities using the tools provided or facility-created tools

EVS Staff requiring competency validation

- Facility ensures employee is competent in job abilities using tools provided or facility-created tools

Facility EVS Employees

- Use tools provided or facility-created tools to ensure employee is competent in job abilities

Contracted company must provide individual staff documentation to facility
Step 1: Cleaning

• Cleaning – the removal of organic matter from a surface, usually accomplished by using a detergent

• Cleaning must occur before:
  • Sanitizing
  • Disinfecting
  • Sterilizing

• Cleaning removes organic matter and allows the disinfectant to work more effectively in reducing microorganisms
Step 2: Reducing/Removing Microorganisms

- Sanitizer – reduce pathogens to a safe level
  - ONLY Used in food preparation areas
  - Not Used in other areas of the healthcare setting

- Disinfectant – chemical used to kill microorganisms on environmental surfaces

- Sterilizer – used for critical medical equipment not housekeeping surfaces
Low-level Disinfectant

- Inactivates the following microorganisms:
  - Vegetative bacteria
  - Enveloped viruses
  - Some non-enveloped viruses
- Quaternary ammonium
  - Low-level disinfectant – used as a sanitizer in food preparation
  - Reactivity reduced by organic matter, water hardness, and anionic detergents
  - Some bacteria can grow in quaternary ammonium solutions (OU, 2009)
  - Binds to cotton fibers (Vaccaro, 2018)

- Some Phenolic
  - Among the earliest germicides, but recent safety concerns restrict use
  - Reactivity reduced by water hardness – use distilled or deionized water to dilute
  - Do Not use on food contact surfaces or with young children

- Some Iodophors (Iodine containing)
  - Similar to chlorine, but slightly less inhibited by organic matter
  - Stains fabrics and environmental surfaces (OU, 2009)
Intermediate-level Disinfectant

- Kills/Inactivates the following:
  - *Mycobacterium tuberculosis*
  - All fungi
  - Most viruses
- Some intermediate-levels do not kill bacterial spores – read label
- EPA-registered tuberculocidal claim
- Chlorine-containing compounds
  - Sodium hypochlorite (bleach) solution most widely used for hard surfaces and blood spills
  - Designated as the best defense against *C. diff*
- Oxidizing agent that destroys cell proteins (Accini, 2012)
- Reactivity is considerable reduced by organic matter (CDC, 2017)
- Alcohols
  - Does not kills spores
  - 70% concentrations are the most effective
  - Do not use near an open flame (OU, 2009)
High-level Disinfectant

- Used for heat-sensitive, semi-critical medical equipment, and inactivating some bacterial spores (CDC, 2017)
- Kills/inactivates the following:
  - Vegetative bacteria
  - *Mycobacterium tuberculosis*
  - Viruses
  - Fungi
  - Inactivates some bacterial spores (i.e. *C. difficile* spores)
  
- Aldehydes – Chemicals that kill all microorganisms/spores (OU, 2009)
- Hydrogen peroxide – 7.5% solutions approved by FDA for sterilization and high-level disinfection
- Peracetic acid – more powerful disinfectant than hydrogen peroxide (Accini, 2012)
Sterilization

• Used to kill ALL microorganisms, including high numbers of bacterial spores

• Kills the following:
  • Vegetative bacteria
  • Mycobacterium tuberculosis
  • Viruses
  • Fungi
  • Bacterial spores (i.e. C. difficile spores)

• Steam— moist heat in the form of saturated steam under pressure
  • Nontoxic
  • Rapid cycle time that is easy to control and monitor

• Hydrogen Peroxide Gas Plasma
  • Leaves no toxic residuals
  • Used for heat- and moisture-sensitive items

• 100% Ethylene Oxide (ETO)/ ETO Mixtures
  • Compatible with most medical materials
  • Penetrates packing materials

• Peracetic Acid
  • Rapid cycle time
  • Low temperature liquid immersion (Rutala, 2017)
Training Environmental Services

Best Practices

1. Clean the surface using a detergent and water

2. Spray or wipe the surface ensuring the surface is wet for the required contact time (aka dwell time)

Notes:

• Do not allow the disinfect to dry before the contact time is over.

• If the surface dries before the contact time is over, then reapply the disinfectant

• Check the label of the disinfectant to determine contact time and kill claim

• Use microfiber cloths – microfiber cloths are less likely to bind with the disinfectant (Wilson, 2014)
Best Practices in Patient Rooms

- Move from the outside of the room to the inside
- Always start from “clean area” and wipe to “dirty area”
  - “Clean area” - an area free of sources of infection
  - “Dirty Area” - an area with high possibility of becoming a source of infection (Yoshikura, 2000)
- Clean/disinfect high touch surfaces (CDC, 2018)
  - Door knobs
  - Light switches
  - Sinks
  - Toilet
  - Bed rail
  - Call button
  - Telephone
  - Bedside table
  - Chair
  - Tray
  - IV Pole

Source: EcoLab
Room Cleaning Process

How can you HELP stop the spread of germs?

- Perform hand hygiene
- Pull trash & linen
- Clean high touch surfaces
- High & low dust
- Make bed, use cleaning supplies & inspect
- Damp-mop the floor
- Clean bathroom
- Dust-mop the floor

Environmental Cleaning

MARYLAND Department of Health
Environmental Cleaning

Restroom Cleaning Process

How can you HELP stop the spread of germs?

- Perform hand hygiene
- Pull trash & linen
- Clean high touch surfaces
- Dust-mop the floor
- Clean bathroom
- Make bed, use cleaning supplies & inspect
- Damp-mop the floor
- Perform hand hygiene

Dust-mop the floor
Audit, Competency Validation, and Monitoring

Tools
Evaluating Cleanliness

Direct observation
- Manager, peer review, nurse, obs

UV Markers
- Mark room at time of patient discharge but before cleaning
- Return with UV Light

ATP system - check system swabs after room is cleaned
Direct Observation

EVS supervisor spot checks randomly after cleaning
  • time consuming
  • not all rooms can be checked

Checklists are helpful

Variety of cleaning is useful
  • after daily
  • after Isolation
After the patient is discharged, but before the room is cleaned place UV marks on high touch areas
  • vary areas (some pick ~10)

EVS cleans rooms

Return with Black Light to check for UV Mark removal
  • great visual teaching
  • timing is problematic
UV Marker Process

Mark high-touch areas

Alternate the areas in order for EVS workers to not “memorize” placement

Either mark a % of rooms or XX per day/shift
ATP Testing

1. Swab areas after cleaning
2. Swab the surface of area you want to test
3. Insert swab into meter
4. Measures presence of organic material on the ATP swab - on small surface areas
5. Get reading
Tools

Competency Validation – Page 1

Environmental Cleaning Competency Validation Form

- Orientation
- Annual

Employee Name: __________________________
Employee ID: __________________________

Employee is competent in environmental cleaning procedures (Complete all areas of form)
- Yes
- No

If not, employee must repeat training/education and competency validation before starting/returning to work.

General Cleaning and Disinfection Procedures

- Clean/disinfect areas using microfiber cloth charged
- Clean/disinfect areas using charged microfiber cloth
- Change and charge laundered microfiber cloth when dirty – no double dipping
- Change and charge laundered microfiber cloth for restrooms
- Ensure surfaces remain wet for the entire contact time
- Discard all dry and dirty microfiber cloths in bucket for laundry at the end of the day or end of shift
- Only use facility-approved detergents
- Only use facility-approved, EPA registered disinfectants
- Remove PPE and perform hand hygiene on every exit and re-entry into a room

Before Entering the Room

- Review patient precaution status – See Isolation cleaning procedures
- Review procedure checklist
- Perform hand hygiene
- Don appropriate PPE
- Place wet floor sign in front of door

Occupied Patient Room

<table>
<thead>
<tr>
<th>Competent</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check sharps container – change if necessary (change if more than ¾ full)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empty, clean, and disinfect trash container – handle plastic bags from the top</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove any visible dirt from patient area and floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean patient bed with a charged microfiber cloth (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect all equipment except the restroom (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect patient restroom except the toilet area (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a laundered charged microfiber cloth clean/disinfect the toilet area (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restock room and restroom supplies (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit room and remove wet floor sign when floor has dried</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Tools

Competency Validation – Page 2

<table>
<thead>
<tr>
<th>Discharged Patient Room</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove linen from bed one piece at a time and place in linen hamper</td>
<td>YES</td>
</tr>
<tr>
<td>Discard open tissue boxes and used toilet paper rolls</td>
<td>NO</td>
</tr>
<tr>
<td>Empty, clean, and disinfect trash container – handle plastic bags from the top</td>
<td>YES</td>
</tr>
<tr>
<td>Check sharps container – change if necessary (change if more than 1/4 full)</td>
<td>NO</td>
</tr>
<tr>
<td>Using a charged microfiber cloth clean/disinfect portable equipment (see procedure checklist)</td>
<td>YES</td>
</tr>
<tr>
<td>Remove portable equipment from room (don and doff appropriate PPE appropriately before exiting and re-entering the room)</td>
<td>NO</td>
</tr>
<tr>
<td>Remove any visible dirt from the patient area and floor</td>
<td>YES</td>
</tr>
<tr>
<td>Dry dust (see procedure checklist)</td>
<td>NO</td>
</tr>
<tr>
<td>Clean patient bed with a charged microfiber cloth (see procedure checklist)</td>
<td>YES</td>
</tr>
<tr>
<td>Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect all equipment except the restroom (see procedure checklist)</td>
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<tr>
<td>Restock room and restroom supplies (see procedure checklist)</td>
<td>YES</td>
</tr>
<tr>
<td>Exit room and remove wet floor sign when floor has dried</td>
<td>NO</td>
</tr>
<tr>
<td>Change room status to “ready”</td>
<td>YES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Isolation Cleaning Procedures</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Precautions</td>
<td></td>
</tr>
<tr>
<td>Perform hand hygiene</td>
<td>YES</td>
</tr>
<tr>
<td>Don gloves and isolation gown correctly</td>
<td>NO</td>
</tr>
<tr>
<td>Nursing staff disinfect and remove equipment from patient room prior to cleaning by environmental services</td>
<td>YES</td>
</tr>
<tr>
<td>Enhance (Enteric) Contact Precautions</td>
<td></td>
</tr>
<tr>
<td>Perform hand hygiene (with soap and water if C. difficile or norovirus)</td>
<td>YES</td>
</tr>
<tr>
<td>Don gloves and isolation gown correctly</td>
<td>NO</td>
</tr>
<tr>
<td>Nursing staff disinfect and remove equipment from patient room prior to cleaning by environmental services</td>
<td>YES</td>
</tr>
<tr>
<td>Bleach or other EPA-registered disinfectant with C. difficile/norovirus claim</td>
<td>NO</td>
</tr>
<tr>
<td>Discard toilet brush after use</td>
<td>YES</td>
</tr>
<tr>
<td>Droplet Precautions</td>
<td></td>
</tr>
<tr>
<td>Perform hand hygiene</td>
<td>YES</td>
</tr>
<tr>
<td>Don gloves and surgical mask correctly</td>
<td>NO</td>
</tr>
<tr>
<td>Airborne Precautions</td>
<td></td>
</tr>
<tr>
<td>Perform hand hygiene</td>
<td>YES</td>
</tr>
<tr>
<td>Don gloves, isolation gown, N95/PAPR</td>
<td>NO</td>
</tr>
<tr>
<td>Check with nursing before room entry</td>
<td>YES</td>
</tr>
</tbody>
</table>
Tools

Audit— Page 1

<table>
<thead>
<tr>
<th>Environmental Cleaning Audit Form</th>
<th>Complete all sections that apply to audited employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit:</td>
<td>Floor:</td>
</tr>
<tr>
<td>Employee Type:</td>
<td>Date:</td>
</tr>
<tr>
<td>Auditor Name:</td>
<td>Auditor Title:</td>
</tr>
</tbody>
</table>

**Occupied Resident Room**

<table>
<thead>
<tr>
<th>Completed</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check sharps container – change if necessary (change if more than 1/4 full)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empty, clean, and disinfect trash container – handle plastic bags from the top</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove any visible dirt from patient area and floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean patient bed with a charged microfiber cloth (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect all equipment except the restroom (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect patient restroom except the toilet area (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a laundered charged microfiber cloth clean/disinfect the toilet area (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restock room and restroom supplies (see procedure checklist)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit room and remove wet floor sign when floor has dried</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**General Cleaning and Disinfection Procedures**

<table>
<thead>
<tr>
<th>Completed</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean/disinfect areas using charged microfiber cloth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change and charge laundered microfiber cloth when dirty – no double dipping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change and charge laundered microfiber cloth for restrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure surfaces remain wet for the entire contact time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discard all dry and dirty microfiber cloths in bucket for laundry at the end of the day or end of shift</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only use facility-approved detergents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only use facility-approved, EPA registered disinfectants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove PPE and perform hand hygiene on every exit and re-entry into a room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Before Entering the Resident Room**

<table>
<thead>
<tr>
<th>Completed</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review patient precaution status – See Isolation cleaning procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review procedure checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform hand hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don appropriate PPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place wet floor sign in front of door</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Discharged Resident Room

<table>
<thead>
<tr>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
</tr>
<tr>
<td><strong>NO</strong></td>
</tr>
</tbody>
</table>

- Remove linen from bed one piece at a time and place in linen hamper
- Discard open tissue boxes and used toilet paper rolls
- Empty, clean, and disinfect trash container – handle plastic bags from the top
- Check sharps container – change if necessary (change if more than 1/4 full)
- Using a charged microfiber cloth clean/disinfect portable equipment (see procedure checklist)
- Remove portable equipment from room (don and doff appropriate PPE appropriately before exiting and re-entering the room)
- Remove any visible dirt from the patient area and floor
- Dry dust (see procedure checklist)
- Clean patient bed with a charged microfiber cloth (see procedure checklist)
- Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect all equipment except the restroom (see procedure checklist)
- Using a laundered charged microfiber cloth – Move from clean to dirty and clean/disinfect patient restroom except the toilet area (see procedure checklist)
- Use a laundered charged microfiber cloth clean/disinfect the toilet area (see procedure checklist)
- Restock room and restroom supplies (see procedure checklist)
- Exit room and remove wet floor sign when floor has dried
- Change room status to “ready”

## Isolation Cleaning Procedures

### Contact Precautions

- Perform hand hygiene
- Don gloves and isolation gown correctly
- Nursing staff disinfect and remove equipment from patient room prior to cleaning by environmental services

### Enteric Contact Precautions

- Perform hand hygiene (with soap and water if *C. difficile* or norovirus)
- Don gloves and isolation gown correctly
- Nursing staff disinfect and remove equipment from patient room prior to cleaning by environmental services
- Bleach or other EPA-registered disinfectant with *C. difficile* or norovirus claim
- Discard toilet brush after use

### Droplet Precautions

- Perform hand hygiene
- Don gloves and surgical mask correctly

### Airborne Precautions

- Perform hand hygiene
- Don gloves, isolation gown, N95/PAPR
- Check with nursing before room entry
## Monitoring – Page 1

### CDC Environmental Checklist for Monitoring Terminal Cleaning

<table>
<thead>
<tr>
<th>Date:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room Number:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initials of ES staff (optional):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Evaluate the following priority sites for each patient room:

#### High-touch Room Surfaces

<table>
<thead>
<tr>
<th>Item</th>
<th>Cleaned</th>
<th>Not Cleaned</th>
<th>Not Present in Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed rails / controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tray table</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV pole (grab area)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call box / button</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedside table handle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room sink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room light switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room inner door knob</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathroom inner door knob / plate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathroom light switch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathroom handrails by toilet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathroom sink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet seat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet flush handle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet bedpan cleaner</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Cleaned</th>
<th>Not Cleaned</th>
<th>Not Present in Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV pump control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-module monitor controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-module monitor touch screen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-module monitor cables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilator control panel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mark the monitoring method used:

- Direct observation
- Fluorescent gel
- Swab cultures
- ATP system
- Agar slide cultures

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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.
Environmental Cleaning

Questions
Environmental Cleaning

References


Environmental Cleaning

References

• L. Marks, personal communication [email]. October 31, 2018.


References


