National Center for Emerging and Zoonotic Infectious Diseases



Core Strategies of Environmental Cleaning and Disinfection in Hospitals

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Presentation Outline

- Purpose
- Scope
- Audience
- Core Strategies
- Next steps

Purpose

- Maintaining a clean hospital environment and minimizing the presence of pathogens is important to keeping patients safe
- The "Core Strategies" provide facilities with a framework that facilitates continued improvement to sustain a clean, safe healthcare environment

Scope

- Intended for acute care hospitals
 - Can be applied to all healthcare facilities, including long-term care facilities and outpatient settings
 - Special considerations may be needed to extend these strategies to other healthcare settings
- Noncritical environmental surfaces
 - Surfaces that come in contact with intact skin but not mucous membranes
 - Environmental surfaces, patient care items, and equipment
- Semi-critical and critical surfaces are not in the scope of this document

Audience

- The intended audience includes:
 - Hospital executive leadership
 - Environmental services (EVS) managers and supervisors
 - Infection prevention and control (IPC) personnel
 - Quality leaders
 - Facilities engineering

Who cleans and disinfects in hospitals?

- EVS technicians
 - Personnel directly employed by the healthcare facility
 - Contract staff
 - Staff employed under other management structures
- Additional healthcare personnel are responsible for cleaning and disinfection of equipment and surfaces in patient care areas
 - Nurses
 - Technicians
 - Others

Core Strategies of Cleaning and Disinfection Programs



Improved patient safety through cleaner patient care areas

Core Strategies

- 1. Integrate environmental services into the hospital's safety culture.
- 2. Educate and train all HCP responsible for cleaning and disinfecting patient care areas.
- 3. Select appropriate cleaning and disinfection technologies and products.
- 4. Standardize setting-specific cleaning and disinfection protocols.
- 5. Monitor effectiveness and adherence to cleaning and disinfection protocols.
- 6. **Provide feedback** on adequacy and effectiveness of cleaning and disinfection to all responsible HCP as well as relevant stakeholders

Integrate EVS into the Hospital's Safety Culture

- Establish hospital cleaning and disinfection program
 - Multidisciplinary participation and oversight
 - Define program responsibilities
- Clear reporting and accountability structure
- Develop a performance evaluation and career advancement structure
- Incorporate considerations for effective cleaning and disinfection into the design, structure, and layout of patient care area
- Consult hospital program before acquisition of non-critical items

Educate and train

- Provide training upon hire, annually, and when new equipment/protocols are introduced
- Competency-based trainings should account for
 - staff turnover rates
 - education level
 - language and cultural barriers
 - learning styles
- Ensure competency and maintain documentation
- Contractors should have comparable training program and documentation
- Update staff on trends in facility infection rates and prevention priorities

Select appropriate technologies and products

- Use a systematic process to select technologies and products
- Incorporate facility cleaning program, EVS management, IPC, Materials Management, and others in decision-making
- Consider aspects such as:
 - Compatibility with manufacturer's instructions for use
 - Contact time
 - Health risks and acceptability to HCP and patients
 - Effectiveness of product in decontaminating a surface
 - Impact on overall cleaning efficiency
 - Expertise and training of staff responsible for product use
 - Effect on surfaces of repeated exposure to a product

Standardize protocols

- Develop standardized cleaning procedures
 - For each major patient care room type or area
 - Routine and discharge/transfer
 - Include appropriate PPE, specific pathogens, patient-level factors
- Account for differences in room layout, equipment, patient risk, and highpriority surfaces and equipment
- Clearly define responsibilities for noncritical equipment, medical equipment, and other electronics
- Develop policies that address storage of patient/visitor personal items
- Establish minimum cleaning times

Monitor effectiveness and adherence

- Develop monitoring strategy and protocols for assessing adherence and effectiveness that include
 - How the monitoring will be done
 - Who will perform monitoring
 - How frequently to monitor
- Perform routine audits of adherence to cleaning and disinfection
- Additional methods to monitor adherence and effectiveness (i.e., fluorescent markers, ATP assays)

Provide feedback

- Use monitoring data to improve cleaning and disinfection policies and procedures and patient safety
- Present data on adherence to EVS technicians in a non-punitive manner
- Present data to the facility cleaning and disinfection program and facility leadership
 - Identify active issues and strategies to mitigate them
 - Validate the effectiveness of the overall cleaning strategy

Next Steps

- Promotion
 - Post on revamped DHQP environmental infection control webpage
- Develop implementation tools
- Considerations for other healthcare settings



Thank you!

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

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