

## Question 8. Do you conduct audits and provide feedback on the effectiveness of environmental cleaning?

You indicated that you do not conduct audits or provide feedback to staff on the effectiveness of environmental cleaning. Transmission of *C. difficile* is similar to other pathogens spread by contact; bacteria or bacterial spores can contaminate the patient or their environment and then be passed on to other patients via health care personnel or shared equipment, or to the next occupant of the patient room. A key aspect of preventing CDI is preventing *C. difficile* transmission. Hospitals and units need to ensure that environmental cleaning and disinfection are effectively decontaminating patient rooms and equipment.

### A. Environmental Cleaning and Disinfecting Essentials for Preventing CDI

Transmission of *C. difficile* is similar to other pathogens spread by contact; the patient or patient's environment can become contaminated, making it easy to spread *C. difficile* to other patients if the environment and equipment are not properly cleaned and disinfected. The formation of spores makes the removal of *C. difficile* more difficult than most pathogens, though their removal or deactivation is possible with thorough cleaning and disinfection.

- Include environmental services staff as key members of the CDI prevention team. Emphasizing their important role in infection prevention will help create buy-in and may assist in highlighting alternative approaches for decreasing CDI transmission.
- Train unit staff, as well as the environmental services staff, on how to clean the environment when *C. diff* is present. Patients with CDI will have frequent diarrheal stools, increasing the risk of patient environment contamination. Unit staff are often responsible for cleaning and disinfection of the patient environment and equipment when environmental services cannot arrive promptly and there is significant environmental soiling. Additionally, staff must be aware of how to properly clean and disinfect equipment and supplies that cannot be dedicated and/or are not disposable.
- When selecting products for cleaning and disinfection, the following factors should be considered before implementing new products:
  - Level of disinfection required and the most appropriate agent or solution for the job. (Products should have label claims clearly indicating that the product inactivates ***C. diff* spores**. Plain air will kill vegetative *C. diff* organisms, but the spores are very hardy and must be deactivated to effectively halt transmission.)
  - Ease of use (contact time, mixing requirements, stability, method of delivery, etc.)
  - Safety (toxicity, flammability, etc.)
  - Surface compatibility, persistent activity and odor
  - Accompanying products needed (mops, cloth, etc.)
  - Cost

- Training and education
  - Potential barriers (product availability, staffing, workflow, etc.)
  - Cleaning and disinfecting protocols should place particular emphasis on high-touch surfaces, such as the bed rails, over-bed tables and call buttons, and should encourage staff to follow a pre-determined logical cleaning pattern, moving from cleanest to dirtiest. Checklists are useful to ensure all items are included in the cleaning and disinfection process and that everyone is on the same page about what “clean to dirty flow” means for hospital rooms, operating rooms, etc.
  - Use single-use or disposable supplies whenever possible. Examples of commonly used equipment for which single-use patient supplies may be substituted are stethoscopes and blood pressure cuffs.
  - For shared patient equipment, a plan for cleaning and disinfection that includes who is to clean the equipment, when, and how should be developed, posted and monitored.
  - Identify and address barriers to effective cleaning and disinfection (e.g., clutter in the patient room, lack of assigned responsibility for cleaning certain items).
  - Include mechanisms for monitoring compliance and thoroughness of cleaning.
- B. Strategies for conducting audits and providing feedback on environmental cleaning effectiveness
- Use evidence-based guidelines and regulatory standards to drive implementation of practices and determine auditing strategies to ensure safe and effective patient care.
  - Audit environmental and equipment cleaning and disinfecting practices to make sure that the guidelines are being properly and effectively implemented; simply having these policies in place is not enough to ensure patient safety.
  - Use objective measures to assess cleaning effectiveness. When conducted successfully, using a frequent and consistent approach, audits provide valuable information that can identify opportunities for quality improvement and track progress over time.
  - Use audits as an opportunity for improvement, not for punishment.
  - Consider using the following popular, relatively easy-to-use tools to audit cleaning practices:
    - Fluorescent gel. Fluorescent gel is placed on a surface before cleaning. After cleaning is complete, a black light is used to illuminate whether or not the gel has been removed.
    - ATP. The presence of ATP can indicate the presence of organic matter, such as *C. difficile* or *C. difficile* spores. ATP creates a bioluminescence, which is measured by a device called a luminometer. For surface contamination testing, the specific area is swabbed and inserted into the luminometer to measure the organic material.
  - Base auditing frequency on the needs, resources and improvement goals of hospitals and/or units. However, auditing frequency must be risk-based (e.g., high-risk areas such as the operating room and bone marrow transplant/cancer unit will need more frequent auditing). Also, it is very important to make sure that all staff responsible for cleaning and disinfecting the environment are monitored at least annually.
  - Provide feedback to staff on environmental cleaning and disinfecting practices in a timely, clear manner that is directed towards improvement rather than punishment.

- Encourage the group or team atmosphere when providing feedback by using ‘we’ statements (e.g., how can ‘WE’ work together to improve CDI cleaning and disinfection?). Spend time listening to staff concerns, and refrain from placing blame.

## Tools, Resources and Further Reading

- STRIVE Content:
  - [Competency-Based Training, Audits and Feedback](#) (CBT 101, CBT 102, CBT 103)
  - [Environmental Cleaning](#) (EC 101, EC 102, EC 103)
  - CDI Tier 1 ([CDI 101](#), [CDI 103](#), [CDI 104](#))
- [CDC Environmental Checklist for Monitoring Terminal Cleaning](#)
- [Options for Evaluating Environmental Cleaning](#)
- [APIC Guide to Preventing \*Clostridium difficile\* Infections](#)
- Dubberke ER, Carling P, Carrico R, et al. Strategies to Prevent *Clostridium difficile* Infections in Acute Care Hospitals: 2014 Update. *Infect Control Hosp Epidemiol.* 2014; 35(6): 628-45.
- Dubberke ER. Preventing *Clostridium difficile* Infection: Clarifying Common Misperceptions. *Medscape.* 2015.