

Clostridioides difficile (CDI or C. diff) Infection Deep Dive for Infection Preventionists

A tool to accompany the CDI Targeted Assessment for Prevention (TAP) Facility Assessment

This supplemental tool is designed to be completed once per facility by the infection preventionist (or the lead of CDI Prevention), allowing for a further assessment of possible areas for improvement in *C. difficile* prevention practices and providing examples of implementation tools, strategies, and resources within each domain below.

Instructions for Use:

1. Complete assessments - facility personnel complete CDI TAP Facility Assessments (available on [TAP Webpage](#)) and Infection Preventionist or CDI prevention lead completes Deep Dive
2. Provide additional context to further interpret results and potential gaps in open text fields throughout Deep Dive
 - o When answering open-text fields consider exceptions to the rule, variations by role, frequency, and challenges
3. Review TAP Facility Assessment data and Deep Dive responses in conjunction by corresponding Domain, noting divergent responses and potential areas of alignment
4. Utilize the [TAP Gap Prioritization Worksheet](#) to outline and prioritize next steps for potential interventions

I. General Infrastructure

1. How does your facility's senior leadership promote CDI prevention?

Senior leadership support is an important aspect of a CDI prevention program, as they allocate resources, advocate for the program, and increase staff engagement. Building a business case for infection prevention may help to engage senior leaders in your CDI prevention program. The below training modules include strategies for engaging leadership and building a business case for infection prevention activities:

- CDC/STRIVE Strategies for Preventing HAIs training module (CE available):
https://www.cdc.gov/infectioncontrol/training/strive.html#anchor_1562683045
- CDC/STRIVE Building a Business Case for Infection Prevention training module (CE available):
https://www.cdc.gov/infectioncontrol/training/strive.html#anchor_1566925840

Ways to support your leaders and encourage engagement:

- *Ensure they are familiar with CDI prevention initiatives and encourage them to share regular reports in leadership and staff meetings and during staff encounters.*
- *Consider including initiative updates and successes in hospital-wide newsletters, patient and family information, and online communications. Make sure to emphasize that the hospital's mission, vision, and values form the groundwork for CDI prevention efforts.*
- *Encourage them to attend and listen to report-outs on CDI prevention efforts. This will help to boost the improvement team's sense of purpose.*
- *Request inclusion of staff engagement in infection prevention initiatives in hospital employee evaluations.*
- *Identify a senior leader that will be a point of contact to provide support and backing when the improvement team encounters roadblocks [1].*

Reference: [1] States Targeting Reduction in Infections via Engagement (STRIVE). CDI Guide to Patient Safety Tool. Retrieved from:
http://psep.med.umich.edu/uploads/5/6/5/0/56503399/strive_cdi_qps_tool_20180608_attrib.pdf

2. Does your facility have a physician champion for CDI prevention?

Yes No Unknown

3. Does your facility have unit-based nurse champions for CDI prevention?

Yes No Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Effective champions can provide support for frontline personnel and managers by energizing their efforts to prevent CDI.

- *Empowering champions by reviewing data related to goals and assisting them in communicating with peers may help spur positive action.*
- *Consider including champions in routine activities within the units to increase awareness and provide a resource for staff.*
- *Potential champions should be effective communicators and respected amongst staff. Leaders should be proactive, positive, and supportive of change, with clear responsibilities that are recognized by staff.*
 - *Information on identifying and implementing infection prevention champions:*
<https://www.cdc.gov/hai/prevent/tap/preventionchampions.html>
 - *CDC/STRIVE training module on preventing HAIs; includes content on why and how to engage champions, and how those efforts align with defined prevention strategies (CE available):*
https://www.cdc.gov/infectioncontrol/training/strive.html#anchor_1562683045

4. Does your facility have a staff person with dedicated time to coordinate CDI prevention?

Yes No Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Ideally a person should be accountable to coordinate CDI prevention in the facility. Some proportion of their time should be dedicated to CDI prevention activities. In addition to other departments, this individual may be within the Infection Prevention Department, the Antibiotic Stewardship Team, the Quality Department, or the Education Department.

Training

5. How often does your facility provide *training* to healthcare personnel on **hand hygiene**?

6. What topics are included in the *training* your facility provides to healthcare personnel on **hand hygiene**?

Training and education of healthcare personnel should be documented to ensure all elements are completed upon hire, at least annually and whenever new equipment or protocols are introduced.

Training on **hand hygiene** should include how to use alcohol-based hand sanitizer and soap and water. In addition, healthcare personnel should be able to identify when they should perform hand hygiene and which method should be used.

Hand Hygiene Training Resources:

- Hand Hygiene Interactive Training Course:
<https://www.cdc.gov/handhygiene/training/interactiveEducation/>
- CDC/STRIVE Training modules covering the importance of hand hygiene, monitoring hand hygiene adherence, and common barriers (CE credit available for completion of all 3 modules):
https://www.cdc.gov/infectioncontrol/training/strive.html?deliveryName=USCDC_425-DHQP-DM7432#anchor_1561123246
- Clean Hands Count Campaign promotional materials including posters, factsheets, and brochures on hand hygiene for providers and patients: <https://www.cdc.gov/handhygiene/campaign/>

7. How often does your facility provide *training* to healthcare personnel on use of **personal protective equipment (PPE)**?

8. What topics are included in the training your facility provides to healthcare personnel on use of **PPE**?

Training and education of healthcare personnel should be documented to ensure all elements are completed upon hire, at least annually, and whenever new equipment or protocols are introduced.

Training on **use of PPE** should include:

- when to use PPE
- what type of PPE to use
- putting on PPE (donning)
- taking off PPE (doffing)

PPE Training Resources:

- CDC/STRIVE Personal Protective Equipment (PPE) training, with modules focusing on Standard Precautions, Transmission-Based Precautions, and auditing and feedback of PPE use (CE credit available for completion of all 4 modules):
https://www.cdc.gov/infectioncontrol/training/strive.html?deliveryName=USCDC_425-DHQP-DM7432#anchor_1565264877

9. How often does your facility provide *training* to healthcare personnel on **Contact Precautions**?

10. What topics are included in the training your facility provides to healthcare personnel on **Contact Precautions**?

Training and education of healthcare personnel should be documented to ensure all elements are completed upon hire, at least annually and whenever new equipment or protocols are introduced.

*Training on **Contact Precautions** should include:*

- *use of Contact Precaution signs*
- *use of dedicated or disposable equipment*
- *patient placement (i.e., single patient rooms or cohorting with like patients)*

Contact Precautions Training Resources:

- *CDC/STRIVE Personal Protective Equipment (PPE) training, with modules focusing on Standard Precautions and Transmission-Based Precautions (CE credit available for completion of all 4 modules):*
https://www.cdc.gov/infectioncontrol/training/strive.html?deliveryName=USCDC_425-DHQP-DM7432#anchor_1565264877
- *Information on Transmission-Based Precautions and example precaution signs:*
<https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>

11. How often does your facility provide *training* to non-EVS personnel (e.g., nursing staff) on **environmental cleaning/disinfection**?

12. What topics are included in the training your facility provides to non-EVS personnel (e.g., nursing staff) on **environmental cleaning/disinfection**?

Training and education on environmental cleaning/disinfection should include non-EVS personnel and should be documented to ensure all elements are completed upon hire, at least annually, and whenever new equipment or protocols are introduced.

Training on environmental cleaning/disinfection for non-EVS personnel should include:

- *cleaning/disinfection of shared medical equipment (and other items for which they are responsible for cleaning)*
- *use of an EPA-registered product that is effective against *C. difficile* spores*
- *following the product label instructions (i.e., contact time, volume)*

It is important that a process is established for cleaning equipment that is shared between patients, patient rooms, or between units. Responsibility for cleaning a piece of equipment should be clearly delineated and communicated to those responsible. Equipment should be cleaned according to the manufacturer's instructions and with a sporicidal disinfectant that is compatible with the equipment [1].

Environmental Cleaning Training Resources:

- CDC/STRIVE Environmental Cleaning Training Modules (CE credit available for completion of all 3 modules): https://www.cdc.gov/infectioncontrol/training/strive.html?deliveryName=USCDC_425-DHQP-DM7432#anchor_1564584999

Reference: [1] L Clifford McDonald, Dale N Gerding, Stuart Johnson, Johan S Bakken, Karen C Carroll, Susan E Coffin, Erik R Dubberke, Kevin W Garey, Carolyn V Gould, Ciaran Kelly, Vivian Loo, Julia Shaklee Sammons, Thomas J Sandora, Mark H Wilcox, Clinical Practice Guidelines for *Clostridium difficile* Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA), *Clinical Infectious Diseases*, Volume 66, Issue 7, 1 April 2018, Pages e1–e48, <https://doi.org/10.1093/cid/cix1085>

13. How often does your facility provide *training* to EVS personnel on **environmental cleaning/disinfection**?

14. What topics are included in the training your facility provides to EVS personnel on **environmental cleaning/disinfection**?

Training and education on environmental cleaning/disinfection for EVS personnel should be documented to ensure all elements are completed upon hire, at least annually, and whenever new equipment or protocols are introduced.

Training on environmental cleaning/disinfection for EVS personnel should include:

- *cleaning/disinfection of environmental surfaces*
- *use of an EPA-registered product that is effective against *C. difficile* spores*
- *following the product label instructions (i.e., contact time, volume)*

Environmental Cleaning Training Resources:

- *CDC/STRIVE Environmental Cleaning Training Modules (CE credit available for completion of all 3 modules): https://www.cdc.gov/infectioncontrol/training/strive.html?deliveryName=USCDC_425-DHQP-DM7432#anchor_1564584999*
- *Interactive training highlighting the role of environmental services personnel in HAI prevention: <https://www.cdc.gov/infectioncontrol/training/evs-battle-infection.html?deliveryName=NCEZID-DHQP-InfectionControl-Tools-DM1848>*

15. If EVS personnel are externally contracted at your facility, how does the facility confirm/review the training provided?

EVS personnel that are hired and managed through an external contract is becoming an increasingly common method for staffing the environmental cleaning program in healthcare facilities. The hospital governing body is responsible to ensure contracted entities provide quality services. The Infection Prevention Department should provide consultative services in evaluating any contractual or performance concerns. This may begin with defining the service level agreement between the facility and the contracting company. To establish accountability, all elements, expectations, and requirements should be explicitly described in the service legal agreement with the contracting company [1]. For example, contracts should include adherence to facility processes for training of personnel.

Reference: [1] CDC and ICAN. Best Practices for Environmental Cleaning in Healthcare Facilities in Resource-Limited Settings. Atlanta, GA: US Department of Health and Human Services, CDC; Cape Town, South Africa: Infection Control Africa Network; 2019. Available at: <https://www.cdc.gov/hai/prevent/resource-limited/index.html>

16. How does your facility conduct skills assessments (e.g., personnel demonstration of tasks) and/or knowledge assessments (e.g., quiz, test) to healthcare personnel on **hand hygiene**?

17. How does your facility conduct skills assessments (e.g., personnel demonstration of tasks) and/or knowledge assessments (e.g., quiz, test) to healthcare personnel on use of **PPE**?

18. How does your facility conduct skills assessments (e.g., personnel demonstration of tasks) and/or knowledge assessments (e.g., quiz, test) on **environmental cleaning/disinfection**?

Skills and Knowledge assessments differ from audits because they occur at the time of training and measure comprehension of the training materials.

The purpose of these assessments in a healthcare setting is to observe healthcare personnel's skills, knowledge, and application of evidence-based practices required to deliver appropriate care to patients [1]. Competency-based training and skills and knowledge assessments should occur upon hire, at least annually, and whenever new equipment or protocols are introduced.

- The CDC/STRIVE [Competency-Based Training for Infection Prevention](#) module describes best practices for engaging healthcare personnel through routine infection prevention training (CE available).

Example Skills/Knowledge Assessment Tools:

- Hand Hygiene- <https://spice.unc.edu/wp-content/uploads/2017/03/Hand-Hygiene-Competency-SPICE.pdf>
- PPE/Contact Precautions- <https://icap.nebraskamed.com/wp-content/uploads/sites/2/2019/06/PPE-competency.pdf>

Skills and knowledge assessments on environmental cleaning/disinfection should include all personnel responsible for the task. This includes EVS personnel as well as non-EVS personnel, who may be responsible for cleaning shared equipment or other items.

Reference: [1] Centers for Disease Control and Prevention. Competency-Based Training for Infection Prevention. Retrieved from: <https://www.cdc.gov/infectioncontrol/pdf/strive/CBT101-508.pdf>.

19. If your facility has Agency Staff or Locum Tenens, describe how they are oriented to facility policies/practices related to CDI prevention:

Orientation of agency staff or locum tenens physicians regarding facility-specific CDI prevention initiatives should be provided. This may include endemic rates of CDI, when to place patients in isolation, expectations regarding the use of PPE and hand hygiene, and how to procure and ensure appropriate testing.

Audits and Feedback

20. How does your facility *audit* (monitor and document) adherence to **hand hygiene** for healthcare personnel?

21. How does your facility *audit* **use of PPE** for healthcare personnel?

22. How does your facility *audit* adherence to **Contact Precautions** for personnel with this responsibility?

Audits in a healthcare setting are intended to measure healthcare personnel's adherence to evidence-based guidelines and regulatory standards to improve patient safety [1]. The CDC/STRIVE presentation, [Using Audits to Monitor Infection Prevention Practices](#), describes how to design and implement audits in your facility. Audits can be delivered through a multitude of mediums, such as direct observation, chart review, questionnaires, and checklists [1].

*Audits should not be used in a punitive manner, but instead to identify areas for improvement in a collaborative way, as well as to reinforce best practices. Audits should be conducted routinely, and the frequency of auditing may be adjusted based on the needs of the unit. If your facility has seen an increase of *Clostridioides difficile* on a unit, audits may need to occur more frequently and focus more acutely on certain practices. Hospitals should determine the focus of audits based on local risk factors, data, and organizational priorities [1].*

Before conducting an audit, determine what your facility wants to measure and what outcome is desired. Use your facility's patient safety data to identify areas of improvement and review regulatory standards to understand benchmarks for best practices. Audits may be conducted through direct and indirect observation.

Direct Observation

Direct observation is most useful as a method of providing feedback in real time while the healthcare personnel is performing the skill [1]. Determine if auditors will intervene at the time of a missed opportunity, or if feedback will be shared after the fact. Chart reviews are another method for direct observation through a retrospective or prospective review of clinical documentation in the patient record [1]. Determine the scope for a chart review, the purpose of the audit, and the timeliness of the feedback.

Indirect Observation

Common methods of indirect observation include measuring product usage over time and questionnaires. Monitoring product usage (e.g. alcohol-based hand sanitizer, PPE supplies) shows product usage over time but does not give insight to how it is utilized by healthcare personnel. Questionnaires, such as the TAP Facility Assessment, offer a method of capturing staff perceptions of their awareness and adherence to current hospital policies. They may provide insight into gaps in practices and allow for the understanding of why some practices may not be consistently met. However, self-reported data tends to show higher compliance rates and may be most effective if staff can respond anonymously.

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The CDC/STRIVE Hand Hygiene: Education, Monitoring and Feedback training module includes methods for monitoring hand hygiene adherence: <https://www.cdc.gov/infectioncontrol/pdf/strive/HH102-508.pdf>.

Example tools for auditing hand hygiene:

- http://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/5b_Controlling%20CDI%20Park%20Nicollet%20Methodist%20Hospital%20Hand%20Hygiene%20Auditing%20Tool.pdf
- https://www.mnhospitals.org/Portals/0/Documents/ptsafety/ControllingCDI/5c_Controlling%20CDI%20UMMC%20Hand%20Hygiene%20Auditing%20Tool.pdf

The CDC/STRIVE Auditing and Feedback of PPE Use training module includes information on who should be audited, what your facility should look for, and how to aggregate data on facility-wide PPE utilization: <https://www.cdc.gov/infectioncontrol/pdf/strive/PPE104-508.pdf>.

Audits on use of PPE should include:

- ease of access to supplies (e.g., adequately stocked)
- personnel use of PPE is appropriate to task or precautions
- putting on PPE (donning)
- taking off PPE (doffing)
- proper disposal
- Example checklist for assessing performance of Contact Precautions procedures, including PPE use: http://www.rochesterpatientsafety.com/Images_Content/Site1/Files/Pages/Hospitals/Isolation%20Checklist.pdf

Audits on performance of Contact Precautions should include:

- use of Contact Precaution signs
- use of dedicated or disposable equipment
- patient placement (i.e., single patient rooms or cohorting with like patients)
- CDC Quick Observation Tools Transmission-Based Precautions suite may be used by nursing personnel to routinely audit adherence to Contact Precautions: <https://www.cdc.gov/infectioncontrol/pdf/QUOTS/Transmission-Based-Precautions-Suite-P.pdf>

Reference: [1] Centers for Disease Control and Prevention. Using Audits to Monitor Infection Prevention Practices. Retrieved from: <https://www.cdc.gov/infectioncontrol/pdf/strive/CBT102-508.pdf>

23. How does your facility provide *feedback* on **hand hygiene** to healthcare personnel?

24. How does your facility provide *feedback* on **use of PPE** to healthcare personnel?

25. How does your facility provide *feedback* on adherence to **Contact Precautions** to personnel with this responsibility?

Use the information gathered during the auditing process to provide effective feedback. Feedback should include both direct feedback during the audit (e.g., “just in time”) as well as aggregated feedback on unit performance. Develop a standardized plan for delivering feedback, not only to the healthcare personnel that are being audited, but with key stakeholders in infection prevention. This often includes IPC, patient safety committees, EVS, and leadership [1].

Feedback may be most well received when it is:

- *From a trusted source*
- *Related to a clear target and action plan*
- *Provided both verbally and in writing (e.g., take home feedback form)*
- *Provided more than once [2]*
- *Respectful and direct*

Providing feedback to frontline personnel should be timely (e.g., in real-time, weekly, monthly), individualized and non-punitive [3]. Well delivered feedback should preserve solidarity amongst personnel and provide a realistic picture of performance.

- *The CDC/STRIVE [Giving IP Feedback](#) module describes strategies for giving effective infection prevention feedback.*

References:

[1] Centers for Disease Control and Prevention. *Using Audits to Monitor Infection Prevention Practices*. Retrieved from:

<https://www.cdc.gov/infectioncontrol/pdf/strive/CBT102-508.pdf>

[2] Ivers N, Jamtvedt G, Flottorp S, Young JM, Odgaard-Jensen J, French SD, O’Brien MA, Johansen M, Grimshaw J, Oxman AD. *Audit and feedback: effects on professional practice and healthcare outcomes*. *Cochrane Database of Systematic Reviews* 2012, Issue 6. Art. No.: CD000259.

[3] Centers for Disease Control and Prevention. *Giving Infection Prevention Feedback*. Retrieved from: <https://www.cdc.gov/infectioncontrol/pdf/strive/CBT103-508.pdf>

26. How does your facility *audit (monitor)* performance of **environmental cleaning/disinfection** for personnel?

Multiple options (<https://www.cdc.gov/hai/toolkits/appendices-evaluating-enviro-cleaning.html>) exist for auditing the cleaning and disinfection of environmental surfaces and patient care equipment.

Auditing may occur through the direct observation of housekeeping performing the cleaning/disinfection process, although logistical challenges may need to be considered. Additionally, other tools such as the use of fluorescent markers (most clear laundry detergent with optical brightening agents will fluoresce under a black light) can be an inexpensive and less time-consuming way to evaluate the cleaning process.

Auditing of environmental cleaning/disinfection should include all items that must be cleaned and all personnel responsible for the task. This includes EVS personnel as well as non-EVS personnel, who may be responsible for cleaning shared equipment or other items.

27. How does your facility provide *feedback* on performance of **environmental cleaning/disinfection** for personnel?

Use the data gathered during the auditing process to provide effective feedback. Feedback should include both direct feedback during the audit (e.g., “just in time”) as well as aggregated feedback on unit performance. Develop a standardized plan for delivering feedback, not only to the healthcare personnel that are being audited, but with key stakeholders in infection prevention. This often includes IPC, patient safety committees, EVS, and leadership [1]. Consider providing personnel information on which items most frequently pass and fail audits. Additionally, provide positive feedback and celebrate success (e.g., recognizing personnel that always achieve more than 95% on audits).

Feedback may be most well received when it is:

- *From a trusted source*
- *Related to a clear target and action plan*
- *Provided both verbally and in writing*
- *Provided more than once [2]*
- *Respectful and direct*

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- *The CDC/STRIVE [Giving IP Feedback](#) module describes strategies for giving effective infection prevention feedback.*

Feedback on performance of environmental cleaning/disinfection should include all items that must be cleaned and all personnel responsible for the task. This includes EVS personnel as well as non-EVS personnel, who may be responsible for cleaning shared equipment or other items.

References:

[1] Centers for Disease Control and Prevention. *Using Audits to Monitor Infection Prevention Practices*. Retrieved from:

<https://www.cdc.gov/infectioncontrol/pdf/strive/CBT102-508.pdf>

[2] Ivers N, Jamtvedt G, Flottorp S, Young JM, Odgaard-Jensen J, French SD, O'Brien MA, Johansen M, Grimshaw J, Oxman AD. *Audit and feedback: effects on professional practice and healthcare outcomes*. *Cochrane Database of Systematic Reviews* 2012, Issue 6. Art. No.: CD000259.

[3] Centers for Disease Control and Prevention. *Giving Infection Prevention Feedback*. Retrieved from: <https://www.cdc.gov/infectioncontrol/pdf/strive/CBT103-508.pdf>

II. Antibiotic Stewardship

1. Has your facility determined baseline usage of antibiotics that are high-risk for CDI?

Yes No Unknown

2. Does your facility monitor and use strategies to reduce the unnecessary use of antibiotics that are high-risk for CDI?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Hospitals can monitor and benchmark antibiotic use by electronically reporting to the National Healthcare Safety Network (NHSN) [Antimicrobial Use \(AU\) Option](#). Benchmarking has proven to be a powerful tool in hospital quality improvement.

- Hospitals that are not yet reporting to the NHSN AU Option can often get antibiotic use data from their pharmacy record systems, usually either as days of therapy or as defined daily doses (DDDs).

Examples of antibiotics that are high risk for CDI include Fluoroquinolones (e.g., Ciprofloxacin, Levofloxacin, Ofloxacin, Moxifloxacin), 3rd/4th generation Cephalosporins (e.g., Ceftazidime, Cefepime), and Clindamycin.

An initial assessment of antibiotic prescribing can help identify potential targets for interventions.

- Facilities can improve their antibiotic prescribing through infection-based interventions (focused on improving prescribing for the most common infections in hospitals), provider-based interventions (such as antibiotic "timeouts"), pharmacy-based interventions (dose optimization, duplicate therapy alerts, automatic stop orders), microbiology-based interventions (antimicrobial susceptibility testing), and nurse-based interventions (intravenous to oral transitions, antibiotic reviews) [1].

Sample templates for reviewing antibiotic use:

- <https://www.ahrq.gov/hai/patient-safety-resources/cdiff-toolkit/cdiff2tools4d.html>
- <http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/cdiff2tools2c.html>

Reference: [1] Centers for Disease Control and Prevention. The Core Elements of Hospital Antibiotic Stewardship Programs: 2019. <https://www.cdc.gov/antibiotic-use/healthcare/pdfs/hospital-core-elements-H.pdf>

3. Does your facility educate providers about risk of CDI with antibiotics?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

One of the most important aspects of an effective Antibiotic Stewardship Program is the dissemination of stewardship education and metrics data to medical personnel. Practitioners are much more likely to change their prescribing habits when local data are presented that demonstrate opportunities for improvement. Education can be provided in any number of ways, including routine reports at staff or departmental meetings, monthly newsletters, and during conferences or grand rounds [1].

Provider Education Resources:

- CDC/STRIVE Training Modules, Module CDI 102 includes training on antibiotic stewardship: <https://www.cdc.gov/infectioncontrol/pdf/strive/CDI102-508.pdf>
- CDC Training on Antibiotic Stewardship, continuing education and informational resources on antibiotic stewardship for healthcare professionals: <https://www.cdc.gov/antibiotic-use/community/for-hcp/continuing-education.html>
- CDC Educational Resources for Healthcare Professionals: <https://www.cdc.gov/antibiotic-use/training/materials.html>

Reference: [1] California Department of Public Health; Hospital Antimicrobial Stewardship Program Implementation Toolkit: https://www.cdph.ca.gov/Programs/CHCO/HAI/Pages/ASP_ToolkitAC_examples.aspx

4. Does your facility educate nurses about risk of CDI with antibiotics?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

5. How are nurses engaged in Antibiotic Stewardship at your facility?

Engagement of nurses in Antibiotic Stewardship Programs is important as they perform a number of activities that influence antibiotic prescribing decisions (e.g., obtaining accurate antibiotic allergy history, performing medication reconciliation, obtaining early and appropriate cultures and reporting results to physicians, timely antibiotic initiation with review for dose/time accuracy, patient/family education and discharge teaching) [1].

Initial steps to integrate nurses into Antibiotic Stewardship programming efforts include leveraging successful nurse leadership models and developing communication mechanisms to encourage nurses to speak up, participate actively in management discussions, and question practices, as appropriate [2].

Consider ways to disseminate Antibiotic Stewardship information to frontline personnel.

- *Accessibility to expertise provided by unit-based pharmacists such as might be provided by antibiotic rounds.*
- *A nurse champion may facilitate these efforts within units, such as by disseminating Antibiotic Stewardship committee activities to frontline nurses and monitoring adherence to stewardship activities (e.g., IV to oral medication transitions).*
- *Determine which Antibiotic Stewardship initiatives have metrics that are influenced by nursing actions, report these metrics at unit-based meetings.*
 - *Comprehensive toolkit to enhancing nursing Antibiotic Stewardship, including facilitator guides, implementation checklist and framework, and C. diff educational materials for nurses:*
<https://www.hopkinsmedicine.org/antimicrobial-stewardship/nursing-toolkit/>

Nurses can play an especially important role in [3]:

- *Educating patients/family members about CDI (e.g., signs and symptoms) when antibiotics are prescribed*
 - *The [Toolkit to Enhance Nursing and Antibiotic Stewardship Partnership](#) includes a '[C. difficile for Nurses' slide deck](#) and [script](#)*
 - *[Printable flyer](#) and [pocket card](#) that list CDI risk factors and symptoms to watch for at home, including a Bristol Stool Chart to help patients and family members identify stool types, from the CDC*
- *Playing a role in the evaluation of patients with antibiotic allergy histories (e.g., specific antibiotic(s), type of reaction, reaction timing, reaction severity, age)*
 - *The [Toolkit to Enhance Nursing and Antibiotic Stewardship Partnership](#) includes several Penicillin Allergy resources for nurses, including:*
 - *An [educational slide deck](#) for nurses with [script](#) and [penicillin allergy one pager](#)*
 - *[Penicillin allergy algorithm](#) with [instructions](#) for use*
 - *Penicillin allergy documentation [progress report template](#)*
 - *Skin reaction interpretation form for [nurses](#) and [patients](#)*
 - *[Penicillin allergy assessment tool for nurses](#)*

– [Penicillin allergy trigger for workstations](#)

- Prompting antibiotic reviews for all patients, such as after 2 days of treatment or when culture results are available
- Participating in the antibiotic review process
- Ensuring proper collection of cultures before starting antibiotics (e.g., using techniques that avoid contamination)
 - The [Toolkit to Enhance Nursing and Antibiotic Stewardship Partnership](#) includes sections for both Urine Culture and Respiratory Culture Resources
- Initiating discussions with the treatment team when patients may require changes to antibiotic orders (e.g., failure to respond to treatment)
- Initiating discussions with the treatment team on transitioning patients from intravenous to oral antibiotics

References:

[1] ANA & CDC. *Redefining the Antibiotic Stewardship Team: Recommendations from the American Nurses Association/Centers for Disease Control and Prevention Workgroup on the Role of Registered Nurses in Hospital Antibiotic Stewardship Practices*. Silver Springs, MD: American Nurses Association; 2017.

<https://www.cdc.gov/antibiotic-use/healthcare/pdfs/ANA-CDC-whitepaper.pdf>

[2] Monsees E, Tamma P, Cosgrove S, et al. Integrating bedside nurses into antibiotic stewardship: A practical approach. *Infection Control & Hospital Epidemiology* (2019), 40, 579–584. doi:10.1017/ice.2018.362

[3] The Core Elements of Hospital Antibiotic Stewardship Programs: 2019, <https://www.cdc.gov/antibiotic-use/healthcare/pdfs/hospital-core-elements-H.pdf>

6. Does your facility educate patients about CDI (e.g., signs and symptoms) when antibiotics are prescribed?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Patient education is also an important focus for Antibiotic Stewardship Programs

- *Nurses are an especially important partner for patient education efforts and should be engaged in developing educational materials and educating patients about appropriate antibiotic use.*
- *It is important for patients and their caregivers to know what antibiotics they are receiving and why, and what signs and symptoms they should be aware of that may indicate adverse effects.*
 - *Patients should be aware that CDI may occur after the course of antibiotics has been completed*
- *Ensure that educational materials are effective and match the literacy level of patients [1].*
 - *Materials and references for patient education on antibiotic prescribing and use:*
<https://www.cdc.gov/antibiotic-use/community/materials-references/index.html>
 - *Inpatient Fact Sheet for educating patients when prescribed an antibiotic:* <https://www.cdc.gov/antibiotic-use/community/pdfs/Inpatient-Fact-Sheet-P.pdf>
 - *CDC/STRIVE Training module on engaging patients and families in infection prevention (CE available):*
https://www.cdc.gov/infectioncontrol/training/strive.html#anchor_1566926963
 - [Printable flyer](#) and [pocket card](#) that list CDI risk factors and symptoms to watch for at home, including a Bristol Stool Chart to help patients and family members identify stool types, from the CDC

Reference: [1] The Core Elements of Hospital Antibiotic Stewardship Programs: 2019, <https://www.cdc.gov/antibiotic-use/healthcare/pdfs/hospital-core-elements-H.pdf>

III. Early Detection and Isolation

1. Does your facility use Nurse Driven Protocols for isolation of suspected CDI cases?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Empower frontline personnel to initiate isolation precautions. Nurse-driven protocols are those that can be immediately initiated by a bedside nurse to allow for isolation of patients with suspected or confirmed CDI [1]. Implementing nurse-driven protocols may facilitate more rapid implementation of Contact Precautions for patients with suspected or confirmed CDI and may also give nurses an increased sense of independence and job satisfaction [2]. Before your facility considers establishing a nurse-driven protocol, it is advised to review local laws, as they may vary by state or jurisdiction. The authority to initiate isolation should be delegated to infection control personnel, which in turn may choose designees (e.g., nurses) to make decisions regarding isolation [3]. Designees should be those who are offering direct care to patients.

– Nurse-driven protocol example from Great Plains QIN:

<https://greatplainsqin.org/wp-content/uploads/2018/08/FINAL-Diarrhea-Decision-Tree-and-Bristol-Stool-Chart.pdf>

References:

[1] United States Department of Health and Human Services. Centers for Disease Control and Prevention. (2019). Strategies to Prevent Clostridioides difficile Infection in Acute Care Facilities. Retrieved from: <https://www.cdc.gov/hai/prevent/cdi-prevention-strategies.html>

[2] Barto, Donna DNP, RN, CCRN Nurse-driven protocols, Nursing Critical Care: July 2019 - Volume 14 - Issue 4 - p 18-24 doi: 10.1097/01.CCN.0000560104.63793.d9

[3] United States Department of Health and Human Services. Centers for Disease Control and Prevention. (2019). Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Retrieved from: <https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>

2. How do ordering providers at your facility document indications for *C. difficile* tests?

*Some facilities have created a field within their electronic medical records system to document an indication for *C. difficile* tests, which is required to submit the test order.*

- *Ensure nursing and frontline personnel know where the testing indication is documented and are able to access the information as needed.*
- *Routinely auditing and providing feedback to personnel on the documentation of CDI test indications can help to ensure adherence.*

– *Evaluation of Clostridium Difficile Testing and Ordering Practices, page 1 contains an example of what should be documented when ordering *C. difficile* tests and a method for evaluating practices:*

<https://www.mnhospitals.org/Portals/0/Documents/patientsafety/Clostridium%20Difficile/CDITestingEval.pdf>

3. Do providers at your facility order *C. difficile* tests for appropriate indications?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Patients are at an increased risk for CDI if they are over 65 years of age, had prior exposure to antibiotic therapies within the last 12 weeks, and have had 3 or more unformed bowel movements within a 24-hour period [1]. Previous hospitalization should be considered when assessing patients for CDI. When assessing diarrhea, the collected stool should take the shape of the specimen container. If your facility utilizes the Bristol Stool Chart, the stool should reflect either Type 6 (Mild diarrhea) or 7 (Severe diarrhea) [2]. Patients may also report abdominal pain or cramping in addition to diarrhea [3]. Diarrhea should not be due to another etiology (e.g. IBD, laxatives, chemotherapy, or tube feeding) [3]. If other causes of diarrhea have been excluded, or when the inciting factor has been discontinued and diarrhea persists, then testing may be warranted.

It is important to ensure adherence to pre-agreed criteria for testing to reduce testing for patients with a low-pretest likelihood of infection [4]. CDI diagnosis should be based on a clinical interpretation of etiology and subsequently confirmed by a diagnostic test. Ongoing performance improvement activities to ensure adherence to pre-agreed criteria for testing is a valuable tool in preventing the overdiagnosis of CDI. With more sensitive methods of detection being used, it is important to only test patients exhibiting symptoms to avoid detecting asymptomatic *C. difficile* colonization [1].

- CDC/STRIVE Training Modules, Module CDI 102 includes training on testing stewardship: <https://www.cdc.gov/infectioncontrol/pdf/strive/CDI102-508.pdf>
- CDC Testing for Clostridium difficile Infection YouTube Video which discusses diagnostic stewardship and CDI: https://www.youtube.com/watch?v=2eIBo_hQeFO&t=
- Minnesota Department of Health Early Recognition and Testing Sample Algorithm: <https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/apxm.pdf>
- Clostridium difficile Infections & Diagnostic Stewardship – Slides posted on the Georgia Department of Public Health which include details on utilizing the two-step algorithm for testing: <https://dph.georgia.gov/sites/dph.georgia.gov/files/EIP%20Conference%202018%20Varkey%20CDI%20and%20Dx%20Stewardship.pdf>
- Example alert for possible inappropriate testing orders, from the Rochester Patient Safety Collaborative: http://www.rochesterpatientsafety.com/Images_Content/Site1/Files/Pages/Hospitals/Example%20of%20E%20Record%20Best%20Practice%20Alert.pdf

References:

[1] Centers for Disease Control and Prevention. (2012, March 6). Testing for Clostridium difficile Infection. Retrieved from:

https://www.youtube.com/watch?v=2eIBo_hQeFO

[2] National Collaborating Centre for Nursing and Supportive Care (UK). Irritable Bowel Syndrome in Adults: Diagnosis and Management of Irritable Bowel Syndrome in Primary Care [Internet]. London: Royal College of Nursing (UK); 2008 Feb. (NICE Clinical Guidelines, No. 61.) Appendix I, Bristol Stool Form Scale.

Available from: <https://www.ncbi.nlm.nih.gov/books/NBK51939/>

[3] L Clifford McDonald, Dale N Gerding, Stuart Johnson, Johan S Bakken, Karen C Carroll, Susan E Coffin, Erik R Dubberke, Kevin W Garey, Carolyn V Gould, Ciaran Kelly, Vivian Loo, Julia Shaklee Sammons, Thomas J Sandora, Mark H Wilcox, Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA), Clinical Infectious Diseases, Volume 66, Issue 7, 1 April 2018, Pages e1–e48, <https://doi.org/10.1093/cid/cix1085>

[4] Morgan DJ, Malani P, Diekema DJ. Diagnostic Stewardship—Leveraging the Laboratory to Improve Antimicrobial Use. JAMA. 2017;318(7):607–608. doi:10.1001/jama.2017.8531

4. How is CDI status (i.e., suspected, confirmed, and recent history) communicated from other facilities upon transfer to your facility?

5. How is CDI status (i.e., suspected, confirmed, and recent history) communicated to receiving facilities upon transfer from your facility?

Creating a written template to inform communication between providers and facilities at the time of interfacility transfers may improve the completeness of health information forwarded with the patient [1]. Including Case Managers in the creation and implementation of transfer protocols may help facilitate the flow of information.

- Information and checklist for engaging hospitals in transition programs:
http://www.pathway-interact.com/wp-content/uploads/2018/09/INTERACT-Engaging_Your_Hospital-v4_0.pdf
- Example inter-facility transfer form:
<https://www.cdc.gov/hai/pdfs/toolkits/Interfacility-IC-Transfer-Form-508.pdf>

Reference: [1] Szary NM, Sarwal A, Boshard BJ, Hall LW. Transfer of care communication: improving communication during inter-facility patient transfer. *Mo Med*. 2010;107(2):127-130.

6. How is CDI status (i.e., suspected, confirmed, and recent history) communicated to the receiving locations when patients are transferred within your facility to different units (e.g., from Emergency Department)?

7. Is CDI status (i.e., suspected, confirmed, and recent history) communicated to the receiving locations when patients are transported within your facility for diagnostic testing or treatment (e.g., to radiology, physical therapy)?

Patients diagnosed with CDI and on Contact Precautions should be moved from their room only when necessary. Prior to transporting the patient to the receiving unit, the receiving unit personnel should be made aware of an incoming CDI patient.

Communication at transfer may be improved by standardizing a method for handoff and training each role involved in the handoff. Some hospitals create a “Ticket to Ride” tool, a standardized form that is completed by both the sending and receiving unit in addition to verbal communication to ensure all pertinent patient information has been addressed. In the published manuscript, [Ticket to Ride: Reducing Handoff Risk During Hospital Patient Transport](#), Pesanka et al. describe UPMC Presbyterian Shadyside’s process for creating a Ticket to Ride protocol and the successes of implementation [1].

Additional examples of Ticket to Ride forms:

- Marlborough Hospital Transport Form “Ticket to Ride”:
http://www.macoalition.org/Initiatives/cdifficile_infections/nov2011/section7/Marlborough%20Transport%20Form%20Ticket%20to%20Ride.pdf
- University of Nebraska Medical Center Ticket to Ride/Ticket to Return:
<https://www.unmc.edu/patient-safety/documents/ticket-to-ride-generic.pdf>

Routinely auditing and providing feedback to personnel on communication when a patient is transferred can help to ensure adherence.

Reference: [1] Pesanka DA, Greenhouse PK, Rack LL, Delucia GA, Perret RW, Scholle CC, Johnson MS, Janov CL. Ticket to ride: reducing handoff risk during hospital patient transport. *J Nurs Care Qual*. 2009 Apr-Jun;24(2):109-15. doi: 10.1097/01.NCQ.0000347446.98299.b5. PMID: 19287248.

Additional questions and information regarding CDI testing practices can be found in the TAP Laboratory Assessment on the [TAP website](#).

IV. Contact Precautions/ Hand Hygiene

1. How does your facility alert personnel when a room should be cleaned with a sporicidal agent?

Various methods may be used to alert personnel when a sporicidal agent is required for disinfection (e.g., signs, lists, electronic alerts). For signs, CDC recommends using the term “Contact Precautions” so that the language is standardized and consistent throughout facility communications. At a minimum, signs upon entering a CDI room should clearly state that PPE (gown and gloves) is required for entry and that sporicidal cleaning is required. Signs should also indicate that hands should be cleaned upon entry and exit of the room. During outbreaks of CDI, hands should be cleaned with soap and water. Even if the patient or room is under isolation/Contact Precautions for another MDRO, it is important to use signs to communicate precautions intended to prevent CDI so that EVS is aware of the need for sporicidal disinfectants. Some facilities use Contact Precautions with additional words like, “Enteric Precautions”, some facilities use signs with colors indicating the need for disease specific processes (e.g. brown signs to indicate the need for sporicidals).

- *Example Contact Precautions sign prompting use of a sporicidal agent for cleaning and disinfection, which can be posted outside rooms of patients with C. difficile:*
<https://www.cdc.gov/hai/pdfs/prevent/cdc-contact-precautions-508.pdf>

2. Do patients with CDI remain on Contact Precautions for the entire duration of hospitalization?

Yes No Unknown

IF **NO**:

2.a. Does your facility have a process for removing Contact Precautions (e.g., patient is moved to a new room and terminal clean with sporicidal provided, patient remains in room and terminal clean held until discharge)?

Yes No Unknown

2.b. If terminal clean is held until discharge, how are EVS personnel notified that a sporicidal is needed?

At a minimum, Contact Precautions should continue for 48 hours after diarrhea has ceased. However, if CDI rates remain endemic at your facility, regardless of implementation of infection control measures, it is recommended to extend Contact Precautions until discharge [1]. It is important to have a clearly defined process for deescalating isolation. This includes deciding who has the authority to discontinue isolation and Contact Precautions and ensuring that EVS personnel conduct a terminal clean of the room.

References:

[1] L Clifford McDonald, Dale N Gerding, Stuart Johnson, Johan S Bakken, Karen C Carroll, Susan E Coffin, Erik R Dubberke, Kevin W Garey, Carolyn V Gould, Ciaran Kelly, Vivian Loo, Julia Shaklee Sammons, Thomas J Sandora, Mark H Wilcox, *Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA)*, *Clinical Infectious Diseases*, Volume 66, Issue 7, 1 April 2018, Pages e1–e48, <https://doi.org/10.1093/cid/cix1085>

3. How does your facility educate patients and families/visitors about hand hygiene?

Patient education on hand hygiene and establishing defined 'systems' or 'processes' may increase patient adherence to routine hand hygiene practices.

- *Some possible interventions include engaging dietary and marketing to establish place mats with instructions/reminders, actively providing hand wipes upon delivery of food, cleaning the table and readying the patient to eat, and increasing education*
- *Another example strategy is to implement "clutter rounds" once a day when the nurses remove any clutter (e.g., old newspapers) from each patient area. A similar strategy may be helpful prior to mealtimes to prepare patients to eat by washing hands and cleaning tables*
- *Providing education to visitors on hand hygiene and use of gowns/gloves may improve adherence, as well as ensuring supplies are readily available*
- *Frontline personnel should have a clear understanding of roles and responsibilities for the education of visitors and reinforcement/reminders to adherence of practices*
 - *Patient and Family Engagement Training Module; Guidance on care engagement, including hand hygiene and PPE content on slides 18-19:*
https://www.cdc.gov/infectioncontrol/training/strive.html#anchor_1566926963

4. Do patients with CDI receive daily baths/showers with soap and water?

Never Rarely Sometimes Often Always Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

*Daily bathing is a routine element of patient care that may be especially important for patients with CDI. It is recommended to implement daily bathing or showering with soap and water for patients with CDI, as patient bathing has been shown to decrease skin contamination of *C. difficile* [1]. *C. difficile* is a spore forming bacteria that is shed through fecal matter and may exist on contaminated skin, even after diarrhea has resolved in an infected patient [2]. Because spores are not killed by CHG, daily bathing is intended to remove of *C. difficile* spores using mechanical friction.*

If needed, identify the possible cause of lack of daily patient bathing for patients with CDI. This may be a matter of patient refusal, failure to document, nonadherence, unawareness, lack of institutional policy, or lack of available showers. Bathing practices should take patient preferences into account. If patient mobility allows, showering may be preferred. Nurses may be reluctant to provide bed baths with soap and water due to concern about contamination of bath basins with multiple pathogens. Some hospitals have eliminated soap and water bathing due to these concerns. If this is the case, a workgroup of frontline caregivers focused on bathing patients with CDI may be helpful. This workgroup can examine ways to reduce environmental contamination related to bathing. Wound care nurses may be especially helpful and can champion bathing protocols that enhance skin health and should be consulted particularly if the perineal or sacral areas become affected by dermatitis.

Tips for ensuring daily patient bathing:

- ***Include a bathing protocol specific to CDI in care bundles.*** *Direct care personnel often understand the importance of daily bathing but may have competing priorities and barriers to consistently performing daily bathing. Incorporate direct care staff in the conversation when designing a policy for daily bathing for CDI patients to understand their perceived barriers (e.g., time, patient refusal).*

- **Educate the patient on the importance of bathing to reduce spores.** Patient preference for daily bathing and showering may be positively influenced by a patient education campaign.
- **Audit documentation of patient bathing in the EHR.** When a patient is positive for CDI, flag an order for daily patient bathing with soap and water.

References:

[1] L Clifford McDonald, Dale N Gerding, Stuart Johnson, Johan S Bakken, Karen C Carroll, Susan E Coffin, Erik R Dubberke, Kevin W Garey, Carolyn V Gould, Ciaran Kelly, Vivian Loo, Julia Shaklee Sammons, Thomas J Sandora, Mark H Wilcox, *Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA)*, *Clinical Infectious Diseases*, Volume 66, Issue 7, 1 April 2018, Pages e1–e48, <https://doi.org/10.1093/cid/cix1085>

[2] Jury LA, Guerrero DM, Burant CJ, Cadnum JL, Donskey CJ. Effectiveness of routine patient bathing to decrease the burden of spores on the skin of patients with Clostridium difficile infection. *Infect Control Hosp Epidemiol* 2011; 32:181–4.

V. Environmental Cleaning

1. List the EPA registration number of products used for cleaning and disinfection at your facility:

Facilities should conduct environmental cleaning of CDI patient-care areas with an Environmental Protection Agency (EPA)-registered disinfectant appropriate for the level of risk. The EPA lists the registered disinfectant products with sporicidal activity effective against C. difficile in [List K: EPA’s Registered Antimicrobial Products Effective Against Clostridium difficile Spores](#).

The CDC provides information regarding exposure times for commonly used disinfectants to assess the effectiveness of different products in killing C. difficile spores in its [Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008](#) (Update: May 2019) (see page 23).

Regardless of which EPA-registered product is selected for use, it is important for facilities to ensure that all personnel are following the manufacturer’s instructions and adhering to the appropriate contact time for each disinfectant used.

2. Do any of the products used at the facility require an additional step to perform disinfection (e.g., liquid bleach or another product requiring pre-cleaning with a detergent)?

- Yes No Unknown

If **YES**,

2.a. Do personnel adhere to cleaning surfaces with a detergent before disinfection with this product?

- Yes No Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Some disinfectant products, such as liquid bleach, require a cleaning step prior to use in order to remove “foreign material (e.g., soil, and organic material).” This is considered a two-step process.

A one-step product allows personnel to clean and disinfect at the same time. Generally, one-step processes are easier for personnel to follow. Facilities should check their product label to determine if their disinfectant product is a one or two-step product.

3. Do EVS personnel prepare (e.g., dilute, mix) cleaning and disinfection products?

Yes No Unknown

4. Is there a process to automate preparation of cleaning and disinfection products (e.g., j-fill)?

Yes No Unknown

If YES,

4.a. How often is the machine for preparing cleaning and disinfection products was calibrated?

Preparation of cleaning chemicals is an important part of using disinfectants appropriately. Competency-based training with return demonstrations should be provided for all personnel that are given the responsibility to prepare cleaning chemicals. Preparing solutions according to the label instructions ensures that the disinfectant will work as intended. If machines are used to prepare cleaning and disinfection products, ensure that they are calibrated routinely per the manufacturer’s instructions.

A common disinfectant used in facilities that requires additional preparation is liquid bleach which must be appropriately diluted in water prior to use. Bleach should be diluted per the label instructions.

Prepare cleaning solutions daily or as needed and replace with fresh solution frequently according to facility policies and procedures.

Disinfectants used in buckets can become contaminated and should not be returned to storage areas after use in clinical areas. Ready-to-use disinfectants stored in their original containers should be stored securely according to all Life Safety standards.

5. When new cleaning and disinfection products are being considered, do frontline EVS personnel have input into the selection?

Yes No Unknown

6. Do personnel ever bring their own cleaning and disinfection products from home?

Yes No Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Only products provided by the facility should be used for cleaning and disinfection. While not common, personnel in some facilities have been observed bringing their own cleaning products from home. Routine review of cleaning products can help identify if this has occurred. Allowing EVS staff to provide feedback and input into the selection of cleaning and disinfection products can improve adherence and compliance with their use.

7. How does your facility delineate roles for environmental cleaning/disinfection between EVS personnel and other personnel?

Clear delineation of roles and responsibilities for environmental cleaning practices is essential for ensuring accountability, engagement, and buy-in of staff with environmental cleaning efforts. It matters less who cleans what, but rather that each role clearly understands what they are responsible for. All personnel are responsible for cleaning the environment and individual responsibilities should be incorporated into facility policy. Ensure all personnel understand their respective roles for cleaning.

- *Some facilities have found it helpful to label high-touch surfaces and equipment to indicate who is responsible for cleaning each item*
- *Provide competency based training and routine audits/feedback to ensure personnel perform cleaning and disinfection appropriately, including nursing personnel if they are responsible for cleaning high touch areas in patient rooms and shared medical equipment*
- *Ensure frontline personnel are aware of which disinfectants to use and when, including appropriate contact times*
 - *Educate frontline personnel on where to find and how to interpret disinfectant product labels to improve their awareness about appropriate use*
- *Example templates for delineating cleaning roles:*
 - <https://www.cdc.gov/infectioncontrol/pdf/strive/CDI103-508.pdf> (slide 11)
 - http://www.rochesterpatientsafety.com/Images_Content/Site1/Files/Pages/Hospitals/Equipment%20Cleaning%20Template.pdf (shared medical equipment)

8. Do EVS personnel use toilet brushes in rooms of patients with CDI?

Yes No Unknown

IF YES,

8.a. Are toilet brushes thrown out after use in rooms of patients with CDI (i.e., not use in other rooms)?

Yes No Unknown

Please describe additional details or context to facilitate targeting of potential interventions:

Toilet brushes should be dedicated to rooms of patients with CDI and should remain in their rooms or be thrown out after use if disposable. Toilet brushes used in rooms of patients with CDI should not be transported on EVS supply carts, used in other patient rooms, or used in other facility locations. Toilet brushes used in rooms of patients with CDI should be thrown out at patient discharge.

Next Steps

Based on this worksheet and review of TAP CDI Facility Assessments, what is the greatest opportunity for improvement in CDI prevention practices at your facility?

Upon completion of this form and review of responses to TAP Facility Assessments: The [TAP Strategy GAP Prioritization Worksheet](#) and [TAP Prevention Prioritization Toolkit](#) may be used by partners to guide in the prioritization of infection prevention gaps and inform next steps.

Additional resources to guide prevention interventions, including the TAP Implementation Guides, are available on the [TAP Strategy Website](#).

For questions and requests for technical assistance, please email CDC at HAIPrevention@cdc.gov.