

## Question 5. Do you routinely collect CDI-related data (e.g., incidence, prevalence, compliance with prevention practices) in the unit(s) in which you are intervening?

You indicated that you do not currently collect CDI-related data. Collecting, measuring, analyzing and reporting information on your CDI prevention activities are critical to ensure continued success. Outcome data, such as total CDI burden, enable you to monitor the success of your CDI prevention initiatives and allow teams to compare how they are doing in their prevention efforts to other units and hospitals. Additionally, as health care moves from fee-for-service models of care to value-based compensation, healthcare-associated infection (HAI) rates, including CDI rates, are important metrics for determining care reimbursement. Process measures, such as hand hygiene compliance rates and the use of high-risk antibiotics, like fluoroquinolones, ensure that process interventions are being effectively implemented and point to areas that require continued enhancement or intervention. Lastly, sharing and highlighting data are crucial strategies for engaging physicians, frontline staff and senior leaders in infection prevention efforts.

### A. What Data to Collect and When to Collect it

- **C. *difficile* infection standard infection ratio (SIR):** A measure used to track HAIs at the national, state and local levels and used by the Centers for Medicare and Medicaid Services (CMS) for their value-based purchasing program. The SIR compares the actual number of infections to the expected/predicted number of infections. Using the CDC's National Healthcare Safety Network (NHSN) Targeted Assessment for Prevention (TAP) reports, you can use the SIR to calculate the **cumulative attributable difference (CAD)**, which tells you how many infections a hospital would need to prevent in order to reach a particular infection goal.
- **Number of LabID hospital-associated C. *difficile* infections:** Patients with stool samples that test positive for *C. difficile* four or more days after hospital admission.
- **Number of LabID non-hospital-associated infection or community-associated C. *difficile* infections:** Patients with stool samples that test positive for *C. difficile* day three or sooner after admission to the hospital.
- **Recurrent C. *difficile* infections:** Patients with stool samples that test positive for *C. difficile* more than 14 days (two weeks) but fewer than 56 days (eight weeks) after the most recent CDI LabID event for that patient.
- **Total antibiotic use:** Track total antibiotic use, including type of antibiotic, dose and duration.
- **Appropriate antibiotic use:** Antibiotics can either be tracked, as the antibiotics given for disease specific states or infections (e.g., urinary tract infection (UTI), pneumonia (PNA)), or the amount of prescribed antibiotics that are associated with a high-risk of CDI (e.g., fluoroquinolones).

- **Stool stewardship:** Rates of rejection of inappropriate stool samples sent for CDI testing.
- **Environmental cleaning compliance rates:** Compliance with institutional standards for daily cleaning procedures and discharge cleaning procedures.
- **Hand hygiene and PPE compliance rates:** Compliance with institutional standards for hand hygiene and effective PPE use.

#### B. Strategies for Successful Data Collection

- Apply a consistent approach to data collection at all stages of your prevention initiatives so that you can compare across time periods and units.
- Designate personnel responsible for data collection. This will typically be infection preventionists or members of the quality improvement department.
- Review CDI line lists to monitor your hospital's CDIs. Line lists for CDIs will give you a perspective on dates of onset of infection and locations within the hospital, providing some insight into potential opportunities to intervene, such as a particular unit with a high prevalence of infection. We recommend using the *C. difficile* lab ID (ergo, the date the stool specimen tested positive) to generate the line list.
- Use the CDC NHSN TAP reports for tracking and monitoring CDI prevention efforts. Most hospitals already enter CDI data into NHSN, which calculates and compares hospitals' HAI rates using the SIR. The TAP strategy is a way to identify facilities or units with the highest excess numbers of infections so that prevention efforts may be directed toward facilities or units in greatest need of improvement. The TAP report displays a CAD, which is the number of infections a facility or unit would need to prevent to reach the health and human services CDI reduction goal. The CAD helps hospitals and units use data for action by translating a target SIR into an HAI prevention goal. This provides a concrete goal to drive action and translates the SIR into a simple message for frontline health care workers.
- Regularly feed back data to the entire CDI prevention team, senior leaders and frontline staff, including environmental services. Sharing data and highlighting success will help empower staff and encourage continued improvement and commitment to the initiative.

#### **Tools, Resources and Further Reading**

- Strive Content:
  - [Using Audits to Monitor Infection Prevention Practices](#) (CBT102)
  - [CDI Tier 1 Course, Monitoring for Compliance and Improvement](#) (CDI104)
- [APIC Reducing C. difficile Infections Toolkit](#), CDI Tracking Tool.

- [APIC Reducing \*C. difficile\* Infection Toolkit](#), Infection Prevention Checklist for *Clostridium difficile*, Observation Form.
- [APIC Reducing \*C. difficile\* Infection Toolkit](#), Environmental Cleaning Data Tool.
- Targeted Assessment for Prevention: Using Data for Action. Available at <https://www.cdc.gov/hai/prevent/tap.html>
- TAP Strategy ‘How To Guide’ for the individual user. Available at: <https://www.cdc.gov/hai/pdfs/prevent/TAP-Guide-for-Individual-Facility-User.pdf>
- National Healthcare Safety Network (NHSN). Surveillance for *C. difficile*, MRSA and other Drug-resistant Infections. Centers for Disease Control and Prevention, CDC. December 15, 2016. Available at: <https://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/>