Nursing Home Clostridioides difficile Infection

Problem

Clostridioides difficile (also known as *C. diff*) is a toxin-producing bacterium that attacks primarily people with recent antibiotic use. The number of US nursing home residents who will be diagnosed with nursing home-onset *C. diff* infection (CDI) are estimated to be as high as 112,000 per year.¹ "The Centers for Disease Control and Prevention (CDC) estimates that in the United States, *C. difficile* infections cause 250,000 illnesses and 14,000 deaths annually."²

Due to advanced age, fragile health, and communal living, nursing home residents are at increased risk for recurrent CDI and suffer higher mortality rates than non-institutionalized patients.³

Making the Business Case

Reducing *C. diff* infections benefits nursing homes by reducing morbidity and mortality and by keeping residents from going to the hospital. Through better performance on publicly reported measures, nursing homes can improve their reputation and avoid payment penalties. Financial investments in infection prevention and control programs can offer good value. The CDC estimates that effective infection control programs could prevent up to 70% of infections. Utilizing a center-based dedicated infection control practitioner is also a good investment in your facility.

Examples of cost savings include eliminating waste through the appropriate selection of antibiotics, avoiding regulatory citations and fines, minimizing the threat of outbreaks, resistant pathogens, and malpractice claims. Many infection prevention practices can improve quality without much of a financial investment. These include proper equipment disinfection, hand hygiene, process and outcome measurement, and accountability standards for compliance.

Evidence-based strategies are available to prevent *C. diff* acquisition and transmission:

- Antibiotic stewardship programs to reduce unnecessary or inappropriate use of antibiotics
- ✓ Handwashing campaigns
- Ensure that Environmental Services personnel have training on surface disinfection to prevent C. diff
- ✓ Institute contact precautions and isolation in infected and suspected patients

Next Steps for Improvement:

- Review your facility's internal data on infection rates, associated length of stay, readmissions and costs. Use the CDC-supported Targeted Assessment for Prevention (TAP) Strategy.
- Put together a multidisciplinary committee to identify a specific target with the necessary cost investments balanced against anticipated cost savings from improvement.
- ✓ Utilizing the National Healthcare Safety Network (NHSN) is both useful and valuable to your center. This gives you access to both historical and current performance data. Alliant is delighted to support your efforts to utilize NHSN and can assist you in doing so. Working with the CDC to bring support to long term care providers is a service Alliant provides to those nursing homes inputting data into NHSN.





Useful Resources

TAP reports let you target interventions to the units that will benefit the most from your work. Identify the interventions that will have the greatest impact by utilizing the CDC's Assessment portion of the TAP Strategy. Finally, customize your approach to prevention by utilizing the tools offered by the CDC to help prevent *C. diff* infections. Find information about the TAP Strategy here: https://www.cdc.gov/hai/prevent/tap.html.

The Agency for Healthcare Research has compiled an excellent report on antibiotic stewardship. In it you'll find materials to help you to plan and execute changes that will benefit both patients and your facility's financial performance: https://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/cdifftoolkit/index.html.

Cited Resources

- 1. Hunter JC, Mu Y, Dumyati GK, et al. Burden of Nursing Home-Onset *Clostridium difficile* Infection in the United States: Estimates of Incidence and Patient Outcomes. Open Forum Infect Dis. 2016;3(1):ofv196. Published 2016 Jan 18. doi:10.1093/ofid/ofv196
- 2. Threat Report 2013 | Antimicrobial Resistance | CDC. available at http://www.cdc.gov/drugresistance/threat-report-2013/index.html.** This is a comprehensive and detailed summary of consequences of antimicrobial resistant organisms as well as C. difficile for the United States. It summarizes morbidity, mortality and costs. Information is easily accessible and single pages may be extracted to support education of staff, residents and family members. Accessed Sept. 7th, 2019
- 3. Jump RL, Donskey CJ. Clostridium difficile in the Long-Term Care Facility: Prevention and Management. Curr Geriatr Rep. 2015;4(1):60–69. doi:10.1007/s13670-014-0108-3

Contact Us

Email us at: nursinghome@alliantquality.org
To learn more, visit: www.alliantquality.org



