

**Presentation Type:**

Poster Presentation

**CDC Consultations for Outbreaks and Infection Control Breaches Occurring in Dental Settings, 2010–2019**

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**Background:** Documented transmission of infectious agents involving dental care is uncommon. However, increasing attention to dental infection control, along with several recent outbreaks, have identified infection control gaps in dental settings. We describe CDC consultations involving outbreaks or infection control lapses occurring in dental settings to identify areas for prevention efforts. **Methods:** We reviewed internal CDC records from January 1, 2010, through October 1, 2019, to identify consultations involving investigations of potential or confirmed disease transmission and infection control lapses in dental settings. We determined yearly number of consultations, number of patients infected, how disease transmission or infection control breaches were identified, suspected mode of transmission, type of infection control breaches identified, and whether at-risk patients were notified. **Results:** We identified 41 consultations, among 27 states, involving investigation of possible disease transmission or infection control lapses in dental facilities. The number of consultations increased from 11 to 30 between the first half (2010–2014) and the second half (2015–2019) of the period and involved at least 113 infections confirmed or suspected to be associated with dental procedures. Most investigations (n = 29, 71%) began with identification of infection control breaches absent known patient infections; 8 (20%) investigations were initiated after identification of a single patient infection raised concerns for possible transmission associated with dental care (eg, single case of acute hepatitis B infection absent other risk factors). Moreover, 4 investigations involved >1 patient infection; 3 were outbreaks confirmed to be due to poor infection control practices. The most common infection control breaches were lapses in dental instrument reprocessing (n = 28, 78%), for example, failure to sterilize dental handpieces or failure to use biologic indicators. Of the 23 consultations where patient notification activities were discussed, 17 (74%) resulted in notification; >20,000 patients received information about their potential exposure, usually accompanied by advice on seeking screening tests. **Conclusions:** Dental-related consultations have increased in recent years, and they highlight the need for improved infection control training of dental healthcare personnel, especially related to dental instrument reprocessing. The CDC Division of Oral Health and the Organization for Safety, Asepsis, and Prevention offers tools, training, and other resources to help dental facilities improve infection control practices. Not all investigations resulted in notifying at-risk patients, but notification should be strongly considered, especially when serious breaches are identified, to promote transparency and help identify disease transmission that could otherwise go undetected.

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**CDIFFerently: A Bundled Approach to *Clostridium difficile* Reduction**

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**Background:** Since 2015 the rate of healthcare facility-onset *Clostridium difficile* infections (HO CDI) at Faxton-St Luke's Healthcare (FSLH) has remained higher than both New York state and federal benchmarks, despite the use of traditional prevention efforts. **Methods:** We used the define-measure-analyze-improve-control (DMAIC) process improvement model to better understand the reasons that our rates remained high and to develop a comprehensive reduction strategy.

- **Define:** High HO CDI rates. NHSN SIR consistently above 1.0
- **Measure**
- Diagnostic stewardship. Are patients being tested appropriately?
- Antibiotic stewardship: Do prescribing practices follow best-practice recommendations?
- Environmental cleanliness: Are staff following standard and transmission based precautions? How effective are current cleaning practices? What is being done to limit contamination of the environment of care?
- Perform a gap analysis of CDI prevention strategies at FSLH vs current best practice recommendations, emerging strategies in scientific literature and successful approaches at other health-care facilities.
- **Analyze**
- Staff do not have a clear understanding of symptoms and risk factors of CDI and often initiate testing inappropriately.
- Overuse of broad spectrum antimicrobial agents. No antibiotic time outs. Limited Pharmacy staff available for auditing and feedback regarding prescribing practices.
- UV disinfection system under-utilized. Shared patient care equipment not cleaned between uses. Delay in implementation of contact precautions. Lack of opportunities for patient hand hygiene.
- **Improve**
- Algorithms for screening and testing built into Electronic Medical Record Orders for testing coupled with orders for contact precautions
- Align antimicrobial prescribing with best practice

