Beth Israel Lahey Health
Beth Israel Deaconess Medical Center

Use of Academic Detailing for *Clostridioides difficile* Diagnostic Stewardship

TAP TO GO BACK TO KIOSK MENU

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Introduction/Problem

Academic detailing (AD) is an educational outreach tool used to conduct two-way communication with clinicians to assess baseline knowledge and motivations for certain practices[1]. Our institution noted an increase in *Clostridioides difficile* (C. diff) positive test results, raising concern for over-testing. The Infectious Diseases Society of America (IDSA) and our hospital guidelines recommend C. diff testing (CDT) if a patient has ≥ 3 loose stools in 24 hours[2]. Some institutions use electronic clinical decision support tools to decrease inappropriate CDT[3]. We ran a pilot QI project using AD to improve appropriateness in CDT. This was done with the aim to deliver the results of the pilot to IS to develop a POE-based solution for providing educational and patient-specific information at the time of CDT order.

Aim/Goal

1. Use AD to improve appropriateness of CDT based on current guideline recommendations in order to reduce over-testing and reduce both publicly reported C. diff infections and potential overtreatment of patients.
2. Assess baseline knowledge and attitudes of providers towards AD in diagnostic stewardship for CDT

Timeframe for pilot was 6 months.

The Team

- Infection Control/Hospital Epidemiology
- Antimicrobial Stewardship
- *C. difficile* Reduction Taskforce
- Hospital Medicine
- Medicine Residents

The Interventions

- Study period: Select weekdays in Nov-Dec 2018 and Mar 2019
- Study population: Resident/teaching attending or hospitalist-only teams caring for patients on the inpatient Medicine service. We excluded clinicians of patients with immunocompromised patients and providers of patients with results CDT order by a different provider.

- AD was delivered one-on-one with each included clinician to:
  - Discuss appropriateness of the CDT on their respective patient(s)
  - Assess baseline knowledge on the appropriate indications for CDT
  - Assess the clinician's attitude towards CDT diagnostic stewardship

Methods/ Definitions

- **Aim 1**: Determination of CDT appropriateness
  - Definition of appropriate CDT
    - ≥3 loose stools in 24 hours
      AND
    - No laxatives for 24 hours prior to CDT
      OR
    - Clinical syndrome consistent with C. diff infection (≥1 of the following):
      - Unexplained leukocytosis
      - Fevers
      - Colitis/ileus on abdominal imaging

- **Aim 2**: AD delivered on CDT (face-to-face or by phone)
  - *Knowledge assessment:* "Are you aware of the indications for appropriate CDT put forth by the IDSA or our hospital policy?"
  - *Attitudes assessment:*
    - "Did you find this peer-to-peer discussion geared towards improving diagnostic stewardship helpful?"
    - "Do you believe an electronic decision support tool that includes current laxative order alerts and testing algorithm could impact your decision on CDT ordering?"

For more information, contact:
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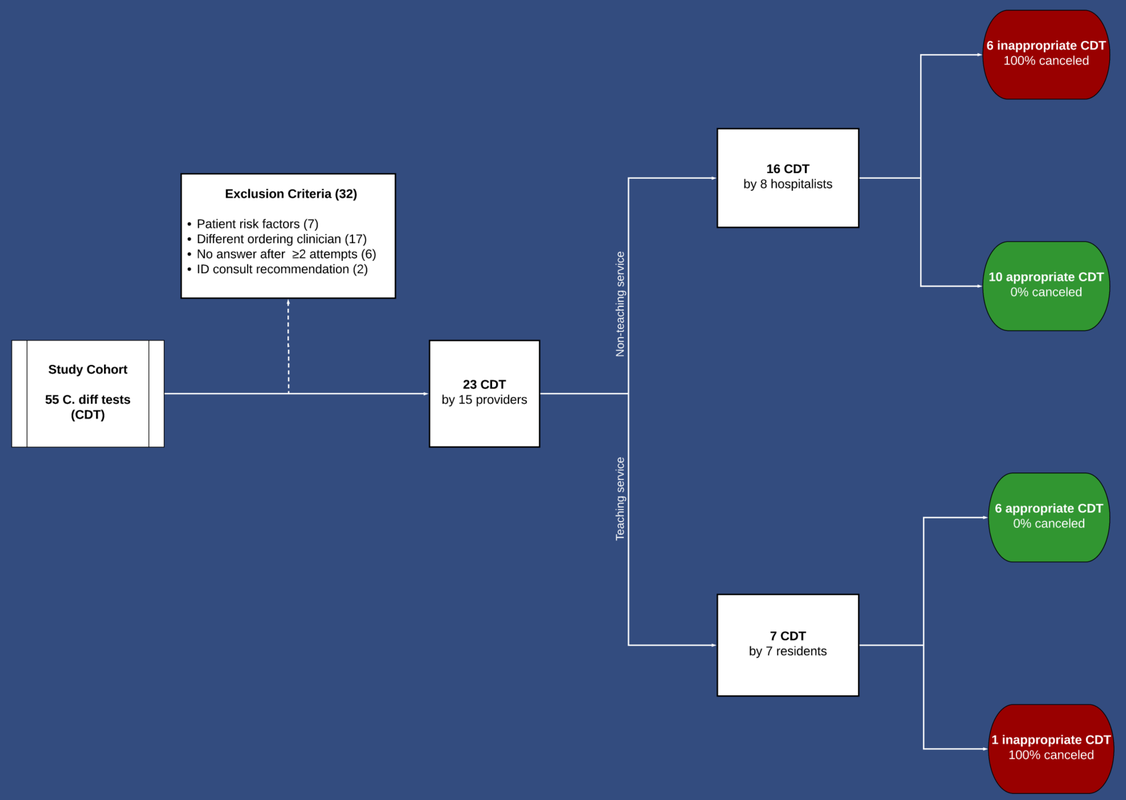
More Results/Progress to Date

Figure: Study Cohort and C. difficile Testing (CDT) Appropriateness



➢ **Aim 1**

- Overall, 7/23 (30%) of CDT were considered inappropriate
  - **All inappropriate tests were canceled following AD**
  - 3/7 (43%) canceled CDT after AD highlighted prior test pending and/or resolution of loose stools

➢ **Aim 2**

- **All clinicians receiving AD described it as helpful**
- Examples of feedback:
  - An internal medicine resident felt this would inform their future CDT ordering practices
  - A hospitalist appreciated discussing C. diff diagnostic stewardship with an infectious diseases clinician
- 14/15 (93%) of clinicians felt that an electronic clinical decision support tool would be a helpful alternative to AD

Lessons Learned

1. In our limited sample, academic detailing improved appropriateness of C. diff testing
2. Academic detailing was well accepted by clinicians, mirroring antimicrobial stewardship experiences
3. Electronic decision support and timeouts for C. diff orders may be resource-sparing options for diagnostic stewardship

Next Steps

- Work with *C. difficile* Reduction Taskforce to develop a proposal for an electronic clinical decision support tool for submission to BIDMC Information Services to include:
  - cPOE algorithm for C. diff diagnostic stewardship to improve appropriateness of CDT
  - CDT electronic order “timeout” 24 hours post order if not yet collected

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