

Weighing the Diff: Assessing the 2021 IDSA Treatment *Clostridioides difficile* (*C. difficile*) Guidelines in a Small, Community Hospital

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BACKGROUND

- Cambridge Health Alliance (CHA) is an academic healthcare system in greater Boston area that is comprised of two acute care, community hospitals
- Per institutional guidelines, oral vancomycin is first-line treatment for initial *Clostridioides* infections (CDI)
- Fidaxomicin is formulary restricted and requires infectious diseases approval
- 2021 Infectious Diseases Society of America (IDSA) Guidelines recommend fidaxomicin as first line initial CDI treatment given non-inferiority to oral vancomycin, lower recurrence rates, narrower spectrum of activity, limited systemic absorption, and twice daily dosing
- Fidaxomicin use is limited due to high cost, insurance coverage, and access


OBJECTIVE

Assess CDI recurrence and identify target population within our healthcare system who should be prioritized for fidaxomicin as initial CDI treatment

METHODS

Retrospective review of all patients ordered for oral vancomycin from January 1st, 2021 to February 16th, 2022 to assess treatment success, failure, and CDI recurrence rate in hospitalized patients

METHODS



Demographics
n=47

Age
Median
66 years (17-95)


Gender
Male (44.7%)

Concomitant antibiotics
5 pts (10.6%)

Initial episode
44 pts (93.6%)


NAP-1 Strain
2 pts (4.3%)

Diagnostics
PCR + 31
Toxin + 12



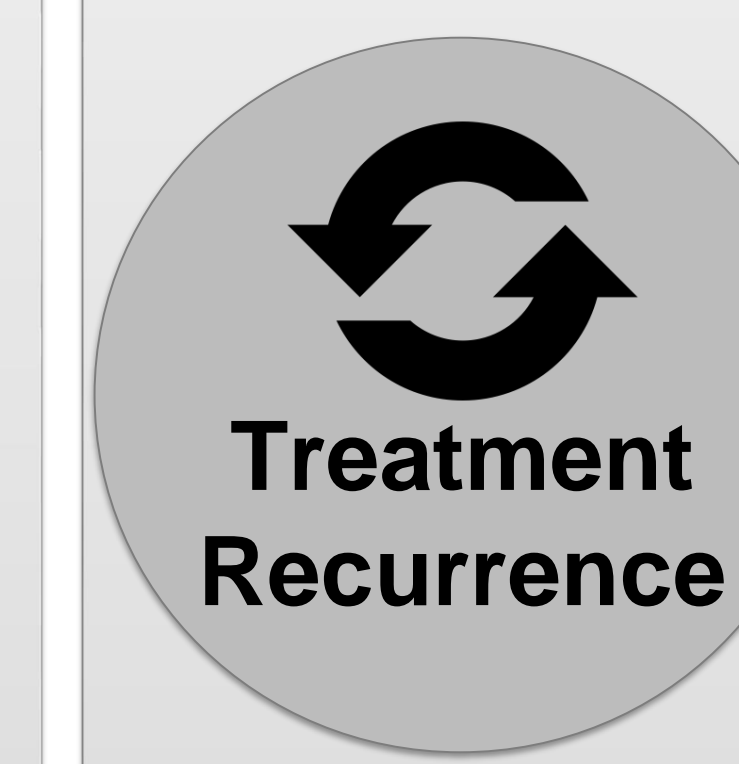
Treatment Success

Resolution of diarrhea OR absence of diarrhea for two consecutive days after completion of oral vancomycin



Treatment Failure

Continuation of symptoms for greater than 6 days after treatment initiation



Treatment Recurrence

Confirmed CDI within 2 months of previous episode

RESULTS

	Number of Patients		
Treatment Success n (%)	40 (85.1%)		
Treatment Failure n (%)	7 (14.9%)		
Treatment Recurrence n (%)	1 (2%)		
Risk Factor	Success	Failure	Recurrence
Age ≥ 65 n = 26	24 (92.3%)	2 (7.7%)	1 (4%)
Immuno-compromised Host n = 4	3 (75%)	1 (25%)	1 (25%)

DISCUSSION

- Majority of the patients were treated for an **initial non-severe CDI**
- **High treatment success rate of 85.1%** correlates with current literature
- Patient who had CDI recurrence had multiple risk factors including **immunocompromised status** and **age ≥ 65 years**
- Given the low recurrence rate, we could not identify significant risk factors associated with CDI recurrence in our population
- Since the observed rate of recurrence with oral vancomycin was low and treatment success was high, it is appropriate for CHA to continue with oral vancomycin as first-line treatment for CDI with consideration for patient-specific risk factors
- Given the cost and access issues, fidaxomicin should be prioritized for more severe infections, patients with multiple risk factors for recurrence, or if our CDI recurrence rates were to rise in the future

LIMITATIONS

- Retrospective design
- Single healthcare system
- Small sample size with few immunocompromised patients

REFERENCE

Johnson S, Laverne V, Skinner AM, et al. Clinical Practice Guideline by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA): 2021 Focused Update Guidelines on Management of *Clostridioides difficile* Infection in Adults. *Clin Infect Dis*. 2021;73(5):e1029-e1044.

