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Zoe Tarun

Kathryn Zaffiri MPH

Eric Young MD

Jarrold W. Kile RPhD

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Adherence to Guideline-Based Treatment of Recurrent *C. difficile* within LVHN Hospitals

Zoe Tarun; Kathryn Zaffiri, MPH; Eric Young, MD; Jarrod W. Kile, RPh., BCPS, BCIDP

LVHN Division of Infectious Disease
Lehigh Valley Health Network, Allentown, Pennsylvania

INTRODUCTION

- C. difficile* infection (CDI) is a major public health issue affecting ~ 500,000 Americans each year,¹ one of the most common nosocomial infections in the US²
 - often associated with microbiome disruption following antibiotic use
- Recurrent CDI (rCDI) presents a significant challenge with up to 35% of patients experiencing recurrence¹
- Current IDSA guidelines for rCDI treatment include long vancomycin taper, vancomycin followed by rifaximin, or fidaxomicin³

OBJECTIVE: to determine whether rCDI cases are being appropriately treated within LVHN hospitals and to examine trends in adherence to guidelines

METHODS

INCLUSION CRITERIA

Of all positive rCDI tests (n=860, unique MRN n=321), select patients ages 18+ with rCDI treated inpatient from June 2019 - June 2024 across LVHN hospitals (n=92, unique MRN n=75)

COLLECT DATA

Retrospective chart review of 92 inpatient rCDI cases, noting treatment received, ID consults, reason for admission, etc.

ANALYZE RESULTS

Categorize cases based on adherence to guidelines and use descriptive statistics to examine trends in adherence

RESULTS

Figure 1. Treatment adherence to guidelines across rCDI cases (n=92)

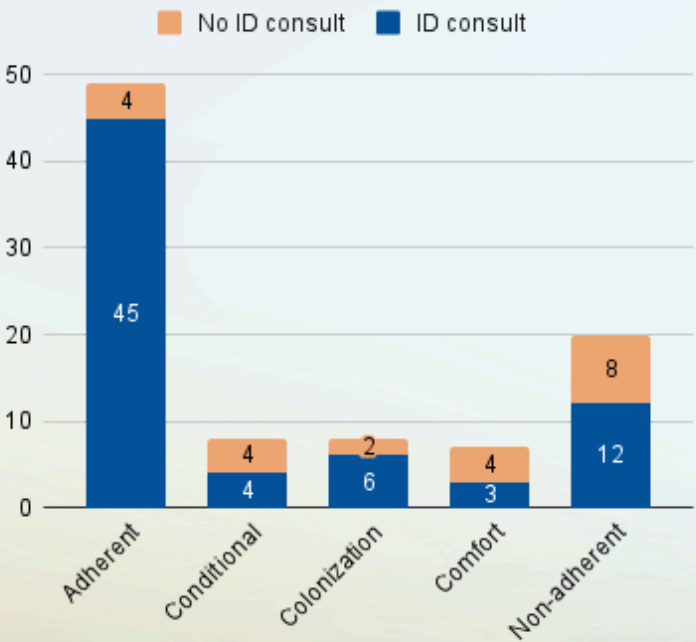
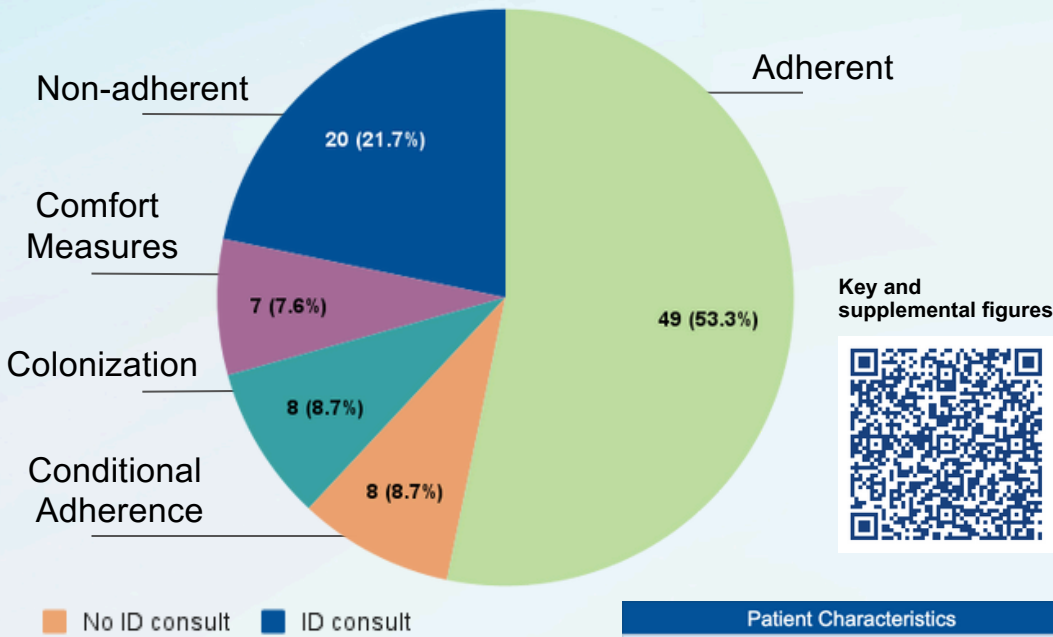


Figure 2. Breakdown of adherence by ID consult

Patient Characteristics	
Sex	
Male	23 (30.7%)
Female	52 (69.3%)
Age (mean, SD)	77.7 (12.5)
Race	
White/Caucasian	68 (90.7%)
Black/African American	2 (2.7%)
Asian	1 (1.3%)
Multi-Racial	1 (1.3%)
Other	2 (2.7%)
Patient Declined or Refused	1 (1.3%)
Ethnicity	
Hispanic or Latino	3 (4%)
Not Hispanic or Latino	71 (94.7%)
Patient Declined or Refused	1 (1.3%)
Received ID consult	
Yes	70 (76.1%)
No	22 (23.9%)

Table 1. rCDI patient characteristics (n=92, unique MRN n=75)

DISCUSSION

- 62% of rCDI cases received treatment that was adherent or conditionally adherent to guidelines
 - Of the adherent cases, 91.8% received an ID consult, while 8.2% did not
- 21.7% of cases received inappropriate treatment
 - 60.0% received an ID consult, while 40.0% did not
- 16.3% of cases did not receive rCDI treatment due to colonization of pathogen or transition to comfort measures

Overall, rCDI patients that received an ID consult were more likely to receive guideline-adherent care compared to patients that did not (64% vs 18%)

CLINICAL IMPLICATIONS

- Increased mortality of rCDI vs primary CDI, economic burden, and further recurrence demonstrate the need for evidence-based rCDI treatment⁴
- Widespread use and misuse of antibiotics drives increasing emergence of antimicrobial resistance across pathogens
 - With few effective antibiotics for CDI, proper treatment is essential to mitigate risk of both morbidity and resistance
- ID consults were associated with higher likelihood of proper treatment, so rCDI patients should be seen by ID physicians to increase appropriate care
 - Further research needed to investigate primary CDI treatment adherence for rCDI prevention, and how adherence affects patient outcomes

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