

Risk Factors Associated with *Clostridium difficile* Infections in Home Infusion Patients

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The logo for NHIA 2019 features the text "NHIA 2019" in white, bold, sans-serif font, centered within a teal circle. This circle is partially overlapped by a larger, stylized graphic consisting of three concentric, semi-circular arcs in purple, orange, and teal, all set against a teal background.

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The NHIA logo consists of a stylized graphic of a person's head and shoulders in white, positioned above the text "NHIA" in a white, bold, sans-serif font.

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Clostridium difficile Infection (CDI)

- Top healthcare-associated infection in the U.S.
- Key quality measure for hospitals and healthcare systems
 - Standardized Infection Ratio (SIR)
 - Prevalence rate per 100 admissions
- There are limited data available for CDI in home infusion setting

Research Project

- **Objective:** Identify the most common risk factors associated with CDI in the home infusion setting
- **Methods:** Retrospective chart review of patients who developed CDI at our institution between 3/24/16 – 6/13/18

Patient Demographics

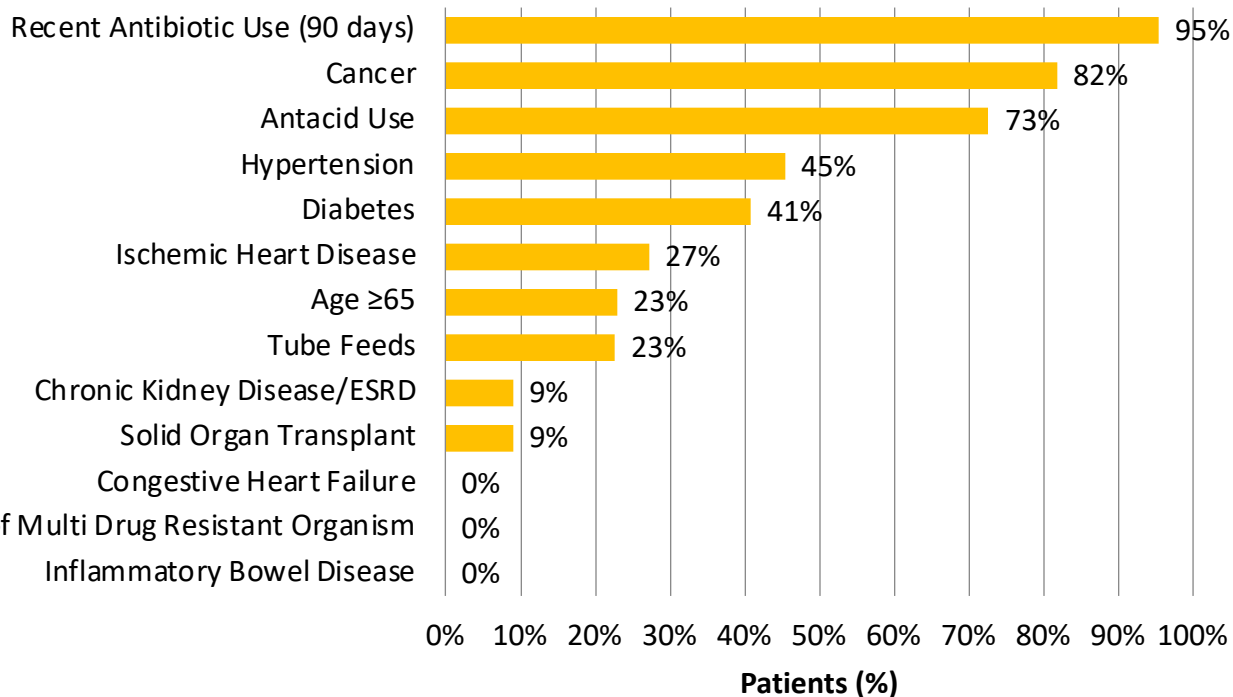
- Of 118 patients, 22 patients met inclusion criteria
- Patient Demographics:
 - Average age was 56.5 years (range 32–74)
 - The most common diagnosis was cancer (54%)
 - The most common therapy provided was line care (27%) and chemotherapy (23%)

Results

- Top 3 risk factors associated with CDI:
 - Recent antibiotic use (95%)
 - Cancer diagnosis (82%)
 - Antacid use (73%)
- All patients had at least 4 risk factors
- 36% of patients had recurrent episodes of CDI
- Rate of CDI (2017) was 0.34%

Results

Risk Factors Associated with C.difficile Infection



Number of Risk Factors	Patients (%)
Four	5
Five	27
Six	23
Seven	41
Eight	5

Limitations

- Single center
- Small sample size
- Retrospective nature
- Difficult to identify true cases of CDI
- Lack of comparator group

Clinical Implications

- Create quality improvement projects
- Develop a screening tool for intake at home infusion
- Identifying populations eligible for IV CDI treatment
- Develop a national measure to track CDI in home infusion setting
- CDI reduction and prevention in health systems

Future Research Directions

- Continue to collect CDI data at our organization
- Collect data for a comparator group within our organization
- Evaluate factors for subsequent episodes of CDI
- Develop and validate a screening tool to identify CDI cases
- Collaborate with other home infusion institutions