

**Presentation Type:**

Poster Presentation - Poster Presentation

**Subject Category:** C. difficile

**Pilot of a Bowel Habit Assessment Tool to Enable Early Identification of C. diff Infection**

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**Background:** Gastrointestinal conditions are common in hospitalized patients. Decreased mobility, dietary changes, medications and their underlying illness may alter patients' bowel movements. It's important for health care providers to be aware of patient's bowel habits, especially for early identification of Clostridioides difficile infection (CDI). Prior research has shown that patient modesty may be a barrier to discussing bowel habits with nurses and providers. This can lead to delay in diagnosis of CDI, lack of timely isolation and possible misclassification of community onset CDI cases as hospital onset (HO-CDI). **Methods:** A Bowel Habits Assessment Tool (BHAT) was developed to assist health care providers in learning skills to assess and document patient bowel habits accurately. The tool provides a structured approach to help clinicians gather relevant information, identify abnormalities, and promote effective communication with patients. The tool was developed by an infectious disease physician and modeled on existing tools utilized to take a sexual history. A team of infectious disease physicians, nurses and a gastroenterologist reviewed the tool and provided feedback. See Table 1. The tool was introduced as a pilot program at a 180 bed academically affiliated Veterans Affairs Hospital. Micro educational sessions were held to provide education about the importance of a bowel habit history, introduce the tool and teach its use in clinical care. The teaching sessions were led by an Infectious Disease physician and a nurse infection preventionist. An anonymous pre and post survey employing a 5-point Likert scale was administered to participants. All participation was voluntary. This project was reviewed and approved as a Quality Improvement by the VA Research Office, Eastern Colorado Health Care System. **Results:** Twenty nine healthcare personnel participated in the pilot. Participants included nurses (13), resident physi-

cians (13), medical students (2) and nursing assistants (1). 59% of participants stated that they strongly agree with the statement "I am comfortable discussing patient's bowel habits" on the pre-survey. (Question 1). This increased to 73% after the BHAT educational session. The mean difference between pre and post survey responses for question one was 0.45 (CI 0.08761 to 0.8089, p= 0.0167). All participants found the BHAT related to their work and useful, with 41% strongly agreeing and 52% somewhat agreeing that the BHAT was useful. See figure 1: Survey Responses. **Conclusions:** The effectiveness of a bowel habit assessment tool was demonstrated using a pre and post survey. BHAT improved clinicians comfort level discussing patient's bowel habits.

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**Assessing Clinical Outcomes for C. diff Polymerase Chain Reaction (PCR)-positive, Enzyme Immunoassay (EIA)-negative Patients**

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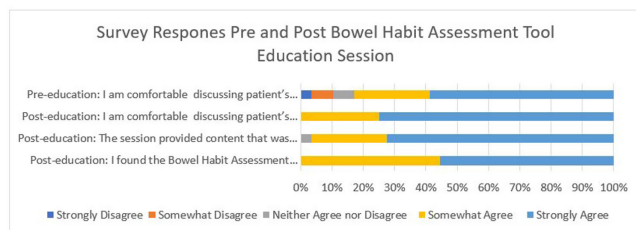
**Background:** In August 2021, Saint Luke's Health System (SLHS) transitioned Clostridioides difficile (C. diff.) testing from polymerase chain reaction (PCR)-only to two-step enzyme immunoassay (EIA) reflex following PCR+ for suspected C. diff. infection. Uncertainty in patient management may arise when PCR and EIA testing differ. Previous studies suggested that disease severity varies when a patient's results demonstrate PCR+ and EIA- due to possible colonization. Clinicians may not treat if diarrhea self-resolves, patients remain stable, or alternate causes of diarrhea exist. We compared clinical outcomes of patients who received treatment to those who did not. **Methods:** This was a retrospective cross-sectional study from August 2021-August 2023 in a multi-site, integrated health system, comparing 181 inpatients with PCR+/EIA- C. diff. test results stratified by no treatment (0-48 hours of C. diff. targeted treatment), partial treatment (2-9 days), or full treatment (10+ days). The primary outcome was length of stay. Secondary outcomes were readmission rates, need for colectomy,

Outline of the Bowel Habit Assessment Tool (BHAT)	
1.	Introduction
2.	Set the stage
3.	Step-by step Assessment Guide
4.	Bristol Stool Scale
5.	Quick Tips

**Table 1:** Outline of the Bowel Habit Assessment Tool (BHAT). The BHAT is a 3 page guide. The introduction states that bowel habits can be a taboo subject and highlights the importance of an accurate bowel habit history. The step by step guide details a suggested dialogue with the patient. A picture of the Bristol Stool scale is provided for reference.

Table 1 (ANOVA analysis)

	Treatment Groups			Total	P-Value
	Full n=144	Partial n=17	None n=20	n=181	
Length of Stay (days)	12.2 ± 14.0	12.0 ± 7.6	9.0 ± 9.2	11.8 ± 13.1	0.585
30 Day Readmission	29 (20.1%)	3 (17.6%)	5 (25.0%)	37 (20.4%)	0.841
Colectomy	6 (4.2%)	1 (5.9%)	1 (5.0%)	8 (4.4%)	0.820
ICU Admission	35 (24.3%)	6 (35.3%)	8 (40.0%)	49 (27.1%)	0.230
Diarrhea Resolved	66 (61.1%)	11 (78.6%)	10 (71.4%)	87 (64.0%)	0.364



**Figure 1:** Survey Responses pre and post a bowel habit assessment tool education session. Responses utilized a 5-point Likert scale.

Table 2 (t-test analysis)

	Full Treatment		Total	P-Value
	Yes n=144	No n=37	n=181	
Length of Stay (days)	8	7	8	0.789
30 Day Readmission	29 (20.1%)	8 (21.6%)	37 (20.4%)	0.841
Colectomy	6 (4.2%)	2 (5.4%)	8 (4.4%)	0.667
ICU Admission	35 (24.3%)	14 (37.8%)	49 (27.1%)	0.098
Diarrhea Resolved	66 (61.1%)	21 (75.0%)	87 (64.0%)	0.172