

**NESCRS
2026 SPRING MEETING**

**OMNI MOUNT WASHINGTON
RESORT & SPA
BRETTON WOODS, NH**



**89th Annual Meeting
Saturday & Sunday, April 25 - 26, 2026**

Saturday, April 25, 2026

- 6:30 AM **Vendors set up – Adams Room**
- 6:45 - 7:30 AM **Registration – Presidential Foyer**
- Breakfast Buffet – Reagan Foyer**
- Load Presentations – Madison/Monroe Room**
- 7:15- 7:30 AM **Introduction/Housekeeping – Dr. Jesse Moore & Tina Blais-Armell**
- 1st Session – Outcomes/Technique**
- 7:30 – 7:36 AM **Can AI Think Like a Surgeon? Evaluating Large Language Models in Colorectal Decision-Making**
Racquel Gaetani, MD; Rachel Fetterman, BA; *Jerry Zhang, MD*; Phanidhar Adusumili, PhD; John Chou, MD; Emily Disler, MD; Haadi Mombini, PhD; Adam Salsman, PhD; Jonathan Abelson, MD, MSc
- 7:37 - 7:43 AM **Assessment of Large Language Model Concordance with NCCN Guidelines for Rectal Cancer**
Ethan Krug, MD; Jeremiah Milbauer, BA; Priya Iyengar, BA; Kailen Wong, BA; Racquel Gaetani, MD; Jonathan Abelson, MD, MSc
- 7:44 – 7:50 AM **Reasons for Delayed Hospital Discharge in Medically Ready Patients Following Elective Colorectal Surgery**
Veer Sawhney, BA; Sara Myers, MD; Bachar Halimeh, MD; Sing Chau Ng, MS; Samantha Rivard, MD; Jennifer Davids, MD; Olga Beresneva, MD
- 7:51 - 7:57 AM **Association of Sociobehavioral Comorbidities with Outcomes after Elective Colectomy in a National United States Veteran Cohort**
Madeline D’Aquila, MD; *Kurt Schultz, MD*; Caroline Richburg, MD; Toral Shah, MS; John O’Leary, MA; Winston Trope, BE; Daniel Hall, MD; Eric Schneider, PhD; Joseph King Jr, MD; Mehra Golshan, MD; Amy Justice, MD, PhD; Ira Leeds, MD
- 7:58 - 8:04 AM **Actionable Sociobehavioral Comorbidities and Patient Outcomes After Major Elective Colorectal Surgery**
Kurt Schultz, MD; Madeline D’Aquila, MD; Caroline Richburg, MD; Winston Trope, BE; Yuqing Huang; Kathryn Bailey; Thomson Blake; Emeri Tompkins; Alicia Mohli; Ira Leeds, MD
- 8:05 - 8:11 AM **Heterogeneity in Colorectal Operative Exposure During General Surgery Training: A National Analysis of ACGME Case Logs**
Quinn Rogers, BA, MS4; Saman Kamal, MD; Alexandra Columbus, MD; Amanda Cimsit, MD; Jason Hall, MD; Lilian Chen, MD

8:12 - 8:18 AM **Risk Factors Associated with Financial Toxicity in Colon Cancer**
Anastasia Bogdanovski, MD; Jorge Gomez-Mayorga, MD; Rafael Martin, MD; Nishant Uppal, MD; Ashley O'Donoghue, PhD; Aaron Fleishmann, MPH; Q. Lina Hu, MD; Katharine Esselen, MD; Kristen Crowell, MD; Benjamin James, MD

8:19 - 8:25 AM **“Surgery Did Something to My Heart and Soul:” A Community-Engaged Qualitative Study of Sociobehavioral Comorbidities and Postoperative Complications After Colorectal Surgery**
Caroline Richburg, MD; Kurt Schultz, MD; Madeline D'Aquila, MD; Rodriguez A; Artis M; Vitous CA; Suwanabol PA; Ira Leeds, MD

8:26 - 8:32 AM **Meeting in the Middle: A Combined Transvaginal and Transrectal Repair for Rectovaginal Fistulas**
Ayoolamide Gazal, MD, Yuen-Joyce Liu, MD, Raul Mendelovici, MD, Rachel Scott, DO

8:33 - 8:39 AM **Red Rubber Catheter Stabilization in a Two-Piece Ostomy Appliance: A Step-by-Step Technique**
Isabella Solaroli MS3; Sara Mayo, MD; Evan Adams, MD

8:45 - 9:05 AM **VENDOR PRESENTATIONS**

2nd Session – Benign

9:15 – 9:21 AM **Anal Cytology as a Predictor of Anoscopy Outcomes in People Living with HIV: Findings from Two Large University Health Systems**
Riley Cable, MS2; Maria Akiki, MD; Fabrizio Tropea, MD; Carolina Vigna, MD; Lisa Chirch, MD; Serina Applebaum, Amit Achhra, MD; Alyson Cunningham, MD

9:22 - 9:28 AM **Presentation Patterns of Diverticulitis During the COVID19 Pandemic**
Madhurima Baliga, MD; Evan Mitchell, MD; Adam Klipfel, MD; Matthew Vrees, MD; Steven Schechter, MD; Katherine Baysinger, MD; Leslie Roth, MD; Rebecca Gologorsky, MD

9:29 - 9:35 AM **Open Versus Minimally Invasive Elective Colectomy with Splenic Flexure Mobilization for Diverticulitis: National Outcomes from a Propensity-Matched Analysis**
HyukJoo “Michael” Hwang, BA; Benjamin Gallant, MD; Andrew Hu, MD; Carlos Fairen Oro, MD; Thomas Peponis, MD; Tess Aulet, MD; Paul Sturrock, MD; Justin Maykel, MD; Karim Alavi, MD

9:36 - 9:42 AM **Self-expanding Colonic Metal Stents for Benign and Malignant Large Bowel Obstruction. Outcomes from a Large Academic Institution**
Carlos Fairen Oro, MD; Benjamin Gallant, MD; Andrew Hu, MD; Anqi Liu, MD; Gabrielle Arcand, MS2; Katherine Tak, BA; Paul Sturrock, MD; Thomas Peponis, MD; Tess Aulet, MD; Justin Maykel, MD; Karim Alavi, MD

- 9:43 – 9:49 AM **Early Foley Catheter Removal after Segmental Colectomy with Colovesical Fistula Closure for Patients with Complicated Diverticulitis: A Single-Arm, Prospective Trial**
Benjamin Gallant, MD; Andrew Hu, MD; Alexandra Onyiego, Catherine Beauharnais, Tess Aulet, MD; Thomas Peponis, MD; Paul Sturrock, MD; Justin Maykel, MD; Karim Alavi, MD
- 9:50 - 9:56 AM **Reevaluating Obesity and Risk of Anastomotic Leak after Elective Colectomy for Diverticulitis**
Olivia Sacks, MD; Tasneem Zaihra Rizvi, PhD; Sungshin Na, MD; Angela Kuhnen, MD; Zhibang Lin, BA; David Kleiman, MD; Johnathan Abelson, MD, MSc, MSc; Peter Marcello, MD
- 9:57 - 10:03 AM **Time-Dependent Risk and Treatment Patterns of Anastomotic Leaks Following Elective Colectomy: A Retrospective Study**
Spyridon Papadimatos, MD; Benjamin Allar, MD; Sumedh Kaul, MS; Alexander Xu, MD; Patricia Marcolin, MD; Kristen Crowell, MD; Thomas Cataldo, MD; Daniel Wong, MD; Evangelos Messaris, MD, PhD
- 10:04 - 10:10 AM **“The Weekend Effect” in Anastomotic Leaks: How After-Hours Diagnosis is Associated with Intervention Timing and Clinical Outcomes**
Benjamin Allar, MD; Spyridon Papadimatos, MD; Alexander Xu, MD; Daniel Wong, MD; Kristen Crowell, MD; Thomas Catado, MD; Evangelos Messaris, MD, PhD
- 10:11 - 10:17 AM **Fecal Microbiota Transplantation (FMT) for Recurrent Uncomplicated Diverticulitis: Results of a Pilot Study**
Andrew Hu, MD; Catherine Beauharnais, MD; Benjamin Gallant, MD; Alexandra Onyiego, Doyle Ward, Beth McCormick, Thomas Peponis, MD; Tess Aulet, MD; Paul Sturrock, MD; Karim Alavi, MD; Justin Maykel, MD
- 10:18 – 10:24 AM **Surgeon Perspectives on Responsibility for Acute Lower Gastrointestinal Surgical Conditions: A Modified Delphi Study**
Sara Myers, MD; Anays Murillo, MD; Rebecca Rudel, DrPH, MPH, RD; Sheina Theodore, MD; Olga Beresneva, MD; Samantha Rivard, MD; Mari-Lynn Drainoni, PhD; Sabrina Sanchez, MD; Jennifer Davids, MD
- 10:25 – 10:31 AM **When the Going Gets Tough: Large Bowel Obstruction Associated with Diverticulitis**
Kevin Arndt, MD; Ethan Krug, MD; David Kleiman, MD; Jonathan Abelson, MD, MSc; Angela Kuhnen, MD; Peter Marcello, MD; Julia Saraidaridis, MD
- 10:40 – 11:00 AM **VENDOR PRESENTATIONS****

3rd Session – Malignant

- 11:06 - 11:12 AM **Change in 30-day Rates of VTE in Major Colorectal Surgery after Publication of ASCRS 2018 Clinical Practice Guidelines**
Yuen-Joyce Liu, MD; Alyson Cunningham, MD; Robert McLoughlin, MD
- 11:13 - 11:19 AM **From Recommendation to Reality: Endoscopic Surveillance Guidelines and Onset of Colorectal Cancer**
Zoe Nepomnayshy, MS3; Benjamin Gallant, MD; Andrew Hu, MD; Kaitlyn Oldewurtel, DO; HyukJoo Hwang, BA; Thomas Peponis, MD; Tess Aulet, MD; Paul Sturrock, MD; Karim Alavi, MD; Justin Maykel, MD
- 11:20 - 11:26 AM **Changes in Characteristics of New Colorectal Cancer Diagnoses After Updated USPSTF Screening Recommendations**
Darian Hoagland, MD; Sowmya Sharma, MD; Patricia Marcolin, MD; Daniel Wong, MD; Kristen Crowell, MD; Thomas Cataldo, MD; Evangelos Messaris, MD; Alexander Xu, MD
- 11:27 - 11:33 AM **Malignant Gastrointestinal Neuroectodermal Tumor of the Rectum: A Rare Case Presentation**
Dan Stoltz, MD; Ron Bleday, MD
- 11:34 - 11:40 AM **Age Does Not Define Outcome: Comparable Oncologic Results in Early- and Late-Onset Locally Advanced Rectal Cancer After Total Neoadjuvant Therapy**
Sowmya Sharma, MD; Spyridon Papadimitos, MD; Alexander Xu, MD; Daniel Wong, MD; Thomas Cataldo, MD; Evangelos Messaris, MD, PhD
- 11:41 - 11:47 AM **MRI Accuracy in Rectal Cancer Staging: Not as Accurate as You Thought?**
Madeline Cohen, MS2; John Kennedy, MD; Peter Callas, PhD; Dmitriy Akselrod, MD; Peter Cataldo, MD
- 11:48 - 11:54 PM **Large Cell Neuroendocrine Carcinoma Mimicking Colon Adenocarcinoma**
Yuen-Joyce Liu, MD; Alyson Cunningham, MD; Eric Girard, MD; Robert McLoughlin, MD
- 11:55 - 12:01 PM **When Less is More: Attitudes about Less than Full-Time Work in Colorectal Surgeons**
Diana Hockett, MD; Racquel Gaetani, MD; Elizabeth Breen, MD; Jonathan Abelson, MD, MSc; Julia Saraidaridis, MD
- 12:02 - 12:08 PM **Inequities in Early Hospital Discharge Following Resection of Colorectal Cancer**
Sara Myers, MD; Naira Ohanjanian, MD; Bachar Halimeh, MD; Sing Chau Ng, MS; Olga Beresneva, MD; Veer Sawhney, BA; Samantha Rivard, MD; Jennifer Davids, MD

12:09 – 12:15 PM **Safety of Stoma Reversal in Patients with Known Metastatic Cancer**
Emily Hensler, MD; Yao Liu, MD; Adam Klipfel, MD; Matthew Vrees, MD; Katherine Baysinger, MD; Leslie Roth, MD; Steven Schechter, MD; Rebecca Gologorsky, MD

12:16 – 12:22 PM **Comparison of Postoperative Outcomes in Robotic Versus Laparoscopic Hartmann’s Reversal: A NSQIP Analysis**
Sungshin Na, MD, Tasneem Rizvi, PhD; Zhibang Lin, MS; Jonathan Abelson, MD, MSc

Meeting Adjourns – Lunch is on your own

1:00 PM **Mock Orals for Fellows – Reagan Room**

5:30 - 6:30 PM **Cocktail Reception – Sun Dining Room**

6:30 - 8:00 PM **Dinner – Sun Dining Room**

Podium Awards announced during dinner: 1st, 2nd and 3rd prizes

2025 Podium Award Winners

- #1 *Acute Care and Colorectal Surgeon Views on Management of Emergency Department Patients with Surgical Conditions*
Sara Myers, MD, Bachar Halimeh, MD, Sheina Theodore, MD, Olga Beresneva, MD, Veer Sawhney, Samantha Rivard, MD, Sabrina E. Sanchez, MD, MPH, Jennifer S. Davids, MD
- #2 *Watch-and-Wait Practices for Locally Advanced Rectal Cancer: A Survey of the American Society of Colon and Rectal Surgeons (ASCRS) Members*
Racquel Gaetani, MD, Tara Russell, MD, MPH, PhD, Keren Ladin, PhD, MSc, Kera Kwan, MD, Jonathan Abelson, MD, MSc
- #3 *The Balance Between Post-Operative Opioid Prescriptions and UnderPrescribing*
Nathan Coppersmith, MD, MHS, Jeannette Garcia Coppersmith, EdM, Andrew Esposito, MD, Ira Leeds, MD, Haddon Pantel, MD, Vikram Reddy, MD, PhD, Anne Mongiu, MD, PhD, Peter Yoo, MD

Sunday, April 26, 2026

- 6:30 AM **Vendors break down**
- 6:45 - 7:55 AM **Breakfast buffet – Reagan Foyer**
- 7:55 AM **Meeting commences**
- 7:55 AM Dr. Julia Saraidaridis, BLINQ Study
- 8:00 AM Dr. Marcella Bradway to introduce Keynote Speaker Dr. Najjia N. Mahmoud
- 9:10 AM **Meeting Adjourns**
- 9:15 AM **Business Meeting for NESCRS Members**

Keynote Address

Najjia N. Mahmoud, M.D.

Professionalism: How Moral Injury and Burnout Drive Behavior--and how to Pivot



Dr. Mahmoud is from Oshkosh Wisconsin and attended the University of Wisconsin majoring in Microbiology and Chemistry.

She attended medical school at Weill Cornell Medical College in New York City, staying for her general surgery residency where her research efforts around Cox-2 inhibition for colon and rectal cancer in the lab of Dr. Monica Bertagnolli sparked a lifelong interest in colorectal cancer genetics and therapeutics.

Dr. Mahmoud did her CRS fellowship at University of Minnesota and joined the faculty of the University of Pennsylvania in 2002.

She has been actively involved in research centered around correlative science in colorectal cancer, prevention of surgical site infection and promotion of processes to improve CRS outcomes. In addition, Dr. Mahmoud is involved in the ABCRS, initiating the CERTLINK continuous education initiative in 2018 and culminating in her Presidency of the ABCRS in 2020.

Dr. Mahmoud has been on the Executive Committee of ASCRS for the past 8 years focusing on development of the ASCRS U educational platform and is the current President of ASCRS.

At UPENN, Dr. Mahmoud serves as Division Chief of Colorectal Surgery, member of the Finance Committee, and the Chair of the Professionalism Committee. Dr. Mahmoud is also a member of the Master Clinicians at UPENN and is engaged in research around issues of professionalism, resilience and burnout.

Officers:

Marcella Bradway, MD - President

Lauren Wilson, MD - Vice-President

Rachel Scott, MD - Secretary

Tess Aulet, MD - Treasurer

Jesse Moore - Program Director

**We would like to thank our exhibitors
for their generous support with this
conference:**

BD

Integra Life Sciences

Medtronic

MIMEDX

Olympus

Signum Surgical USA, Inc.

SMI Cold Therapy

Solventum

Stryker

SATURDAY

Session 1

Outcomes/Technique

ABSTRACTS

Can AI Think Like a Surgeon? Evaluating Large Language Models in Colorectal Decision-Making

Racquel Gaetani, MD, MSc; Rachel Fetterman, BA; *Jerry Zhang, MD*; Phanidhar Adusumili, PhD; John Chou, MD; Emily Disler, MD; Haadi Mombini, PhD; Adam Salsman, PhD; Jonathan Abelson, MD, MSc

Department of Colon and Rectal Surgery, Lahey Hospital and Medical Center, Burlington, MA

Objectives

- 1) To evaluate and compare the diagnostic and treatment accuracy of multiple large language models when applied to common colorectal conditions encountered in the emergency department.
- 2) To assess large language model performance in determining surgical procedure type and urgency, and to examine whether access to imaging improves model accuracy and confidence.

Background

Large language models (LLMs) are increasingly being applied in clinical settings, yet their diagnostic and treatment accuracy for surgical conditions remain uncertain. This study primarily aimed to evaluate the diagnostic and treatment accuracy of LLMs for common colorectal conditions encountered in the emergency room setting with secondary aims to assess their ability to determine procedure type and urgency, and to examine whether access to imaging improved performance or confidence.

Methods

De-identified history and physical data from patients who underwent colorectal evaluation in the emergency department over a one-year period were extracted from the electronic medical record. Each case was entered into four LLMs (ChatGPT-3.0, ChatGPT-4.0, Claude Sonnet 3.7, and Gemini 2.5 Pro) using a standardized prompt and run twice, once with and once without imaging. Models were asked to provide a primary diagnosis, treatment plan, surgical recommendation, and a self-reported confidence rating for each response. Three independent reviewers conducted blinded chart reviews to verify the actual care provided, and model outputs were scored for diagnostic, treatment, procedural, and urgency accuracy relative to the patient's real-world management. A qualitative thematic analysis was performed to identify recurring patterns in diagnostic reasoning and sources of error.

Results

Among the 80 patients, 52% presented with colitis or complications of inflammatory bowel disease, 15% with perianal disease, and the remainder with bowel obstruction, leak, or colon perforation; 35% required operative intervention. ChatGPT-4.0 demonstrated the highest diagnostic accuracy (80%), treatment accuracy (80%) and achieved the greatest overall combined diagnostic and treatment accuracy (70%) without imaging whereas ChatGPT-3.0 performed best

with imaging with a diagnostic accuracy of 90% (Figure 1). Across all models, mean diagnostic accuracy improved significantly with imaging (74% vs. 87%, $p < 0.05$). ChatGPT-3.0 most accurately identified the appropriate surgical procedure (96%) while Gemini 2.5 Pro achieved the highest accuracy in classifying surgical urgency (63%). Across all models, accuracy of treatment recommendations and surgical procedural selection did not improve with imaging.

Qualitative analysis revealed that diagnostic errors most occurred due to failure to identify disease extent (perforation, abscess, sepsis), and misattribution of etiology (e.g., ischemic vs diverticular colitis). Treatment errors were most often due to incomplete management (missing antibiotics, bowel rest, or drainage), incorrect surgical timing or procedure, and under-treatment relative to disease severity.

Conclusions

LLMs showed moderate-to-high accuracy in colorectal emergency management, particularly with imaging. Although ChatGPT-4.0 performed most consistently, these models should be applied with caution, as they often miss the subtle contextual and clinical nuances that guide surgical decision-making. Used responsibly, LLMs may complement, but not replace, expert clinical judgment.

Table 1: Diagnostic, Treatment, Procedural Accuracy, and Confidence of Large Language Models With and Without Imaging

	Chat GPT 3.0		Chat GPT 4.0		Claude Sonnet 37		Gemini 2.5 Pro	
	Without imaging	With imaging	Without imaging	With imaging	Without imaging	With imaging	Without imaging	With imaging
Correct diagnosis, n (%)	57 (71%)	72 (90%) *	56 (80%)	66 (84%) *	55 (69%)	68 (86%) *	50 (76%)	69 (86%)*
% Diagnosis confidence, mean (SD)	79% (10%)	84% (6%)	87% (3%)	89% (3%)	86% (8%)	90% (6%)	90% (9%)	94% (3%)
Differential diagnosis includes correct diagnosis, (n%)	5 (6%)	4 (5%)	11 (14%)	8 (10%)	11 (14%) *	5 (6%)	9 (11%) *	4 (5%)
Correct treatment, n (%)	44 (55%)	51 (64%) *	56 (80%) *	40 (50%)	42 (53%)	44 (55%)	39 (49%)	46 (75%)*
% Treatment confidence, mean (SD)	74% (10%)	78% (6%)	82% (4%)	83% (3%)	81% (9%)	84% (6%)	90% (7%)	91% (3%)
Correct surgical procedure in those who underwent surgery, n (%)	21 (78%)	26 (96%) *	21 (78%)	21 (78%)	21 (78%)	22 (81%)	20 (74%)	24 (89%)
Correct surgery urgency, n (%)	15 (56%)	13 (48%) *	13 (48%)	14 (52%) *	11 (41%)	13 (48%)	14 (52%)	17 (63%)
% Overall clinical confidence, mean (SD)	75% (10%)	79% (5%)	81% (5%)	82% (5%)	81% (9%)	83% (6%)	82 (9%)	86% (6%)
Correct diagnosis and treatment	36 (45%)	50 (63%) *	56 (70%) *	37 (46%)	32 (40%)	41 (51%)	28 (35%)	43 (54%)*

* $p < 0.05$

Assessment of Large Language Model Concordance with NCCN Guidelines for Rectal Cancer

Ethan Krug, MD; Jeremiah Milbauer, BA; Priya Iyengar, BA; Kailen Wong, BA; Racquel Gaetani, MD; Jonathan Abelson, MD, MSc

Lahey Hospital and Medical Center, Burlington, MA

Objectives

- 1) Assess multiple LLMs concordance with NCCN guidelines for rectal cancer.
- 2) Objectively quantify their performance.

Introduction

ChatGPT and other large language models (LLM) have become increasingly ubiquitous. Prior studies have demonstrated concordance between ChatGPT's recommendation and NCCN guidelines for oropharyngeal and urologic cancers. This has yet to be studied in rectal cancer. The aim of this study is to assess multiple LLMs to determine if they provide clinically appropriate recommendations for the treatment of non-metastatic rectal cancer in concordance with the NCCN guidelines.

Methods

The NCCN guidelines for non-metastatic rectal cancer staging, treatment, and surveillance were coded into prompt-answer pairs. Each prompt asked about a specific treatment step in the NCCN guidelines and had one or more correct answers. In total, seven LLMs (ChatGPT, Claude, Google.com, GPT 4.1, GPT 4.1-mini, GPT 4o, and Open Evidence) were queried on 53 prompts with a total of 108 correct answers. The prompts were subdivided into treatment phases including initial work up, initial treatment, restaging after neoadjuvant therapy, adjuvant therapy following surgery, and surveillance. The precision (positive predictive value), the recall (sensitivity) and F1 score (harmonic mean of precision and recall) were calculated for each model across all prompts and within each treatment stage. Our primary outcome was the F1 score for each model.

Results

Utilizing F1 score as an assessment of overall performance, many models performed strongly with GPT 4.o performing best (0.900) with the free to access ChatGPT performing worst (0.619). Additionally, the models were generally quite precise, with four models having precision above 0.9 (GPT 4o [0.978], Claude [0.936], GPT 4.1 [0.933], and Open Evidence [0.931]). GPT 4.1-mini had the lowest precision at 0.657. Recall was more challenging for the models with GPT 4o and Google.com performing the best with a recall score of 0.833 and ChatGPT being notably low at 0.556. While thresholds for acceptable precision, recall, and F1 score are subjective, values above 0.80 are generally considered strong, and above 0.90, excellent.

Conclusions

Given the high stakes of cancer treatment, a high bar for reliability is essential before clinical implementation. Most LLMs in this study achieved F1 scores above 0.8 indicating strong performance. However, recall was consistently lower than precision, suggesting that models often fail to provide fully comprehensive recommendations. Performance also varied across treatment stages and among models—even within the same developer. Importantly, these models do not indicate uncertainty leaving it to the user to recognize gaps or errors. Despite overall strong performance, as with all unverified online tools, patients and clinicians should approach LLM-generated recommendations with caution.

References

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Reasons for Delayed Hospital Discharge in Medically Ready Patients Following Elective Colorectal Surgery

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Objectives

- 1) To identify reasons for delay in discharge of patients who are medically ready.
- 2) To identify social determinants that may impact post-operative hospital lengths of stay.

Background

Prolonged postoperative length of stay (LOS) following elective colorectal surgery is associated with an increased risk of hospital-acquired infections, physical deconditioning, and higher healthcare costs for both patients and institutions, while also contributing to inpatient bed shortages. However, the factors underlying delayed discharge among patients deemed medically ready remain poorly understood.

Methods

We conducted a prospective observational study at an urban safety-net hospital. All patients admitted between December 2024 and February 2026 for an elective colorectal surgery with a planned inpatient stay of at least one day were included. Demographic, comorbidity and diagnostic data were collected, along with operative variables. The date patients were deemed medically ready for discharge was compared with their actual discharge date; discharge occurring after medical clearance was defined as delayed. For cases with delayed discharge, the clinical team was interviewed to ascertain contributing factors.

Results

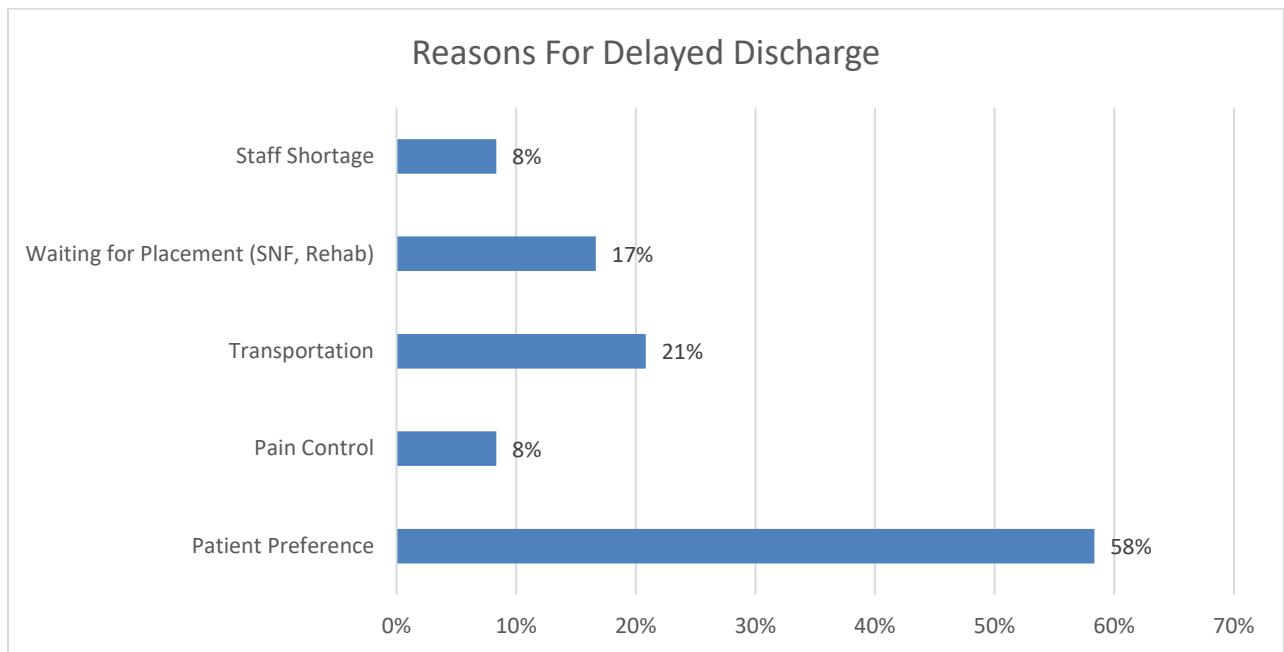
Of the 156 patients we included, half were female (n = 80, 51%), the median age was 54 (IQR 44-63.5). 35% (n = 54) were white, 26.9% (n = 42) Black, and 66% (n = 103) were non-Hispanic. Common reasons for admission included cancer (40%), Diverticulitis (19%), and inflammatory bowel disease (13%). 41% of cases used a robotic surgical approach, 35% laparoscopic, and 24% open. The most common operations were colectomies (63%) and ostomy reversals (17%).

15% of patients (n = 24) were discharged later than when they were medically cleared. The most common reason for late discharge was patient preference to stay longer (58%). Other reasons included inadequate pain control, transportation issues, absence of an ostomy nurse for education over the weekend, and case management challenges with long-term care placement. Late discharge was not associated with age, sex, race, or operative approach in a fisher analysis (p>0.05).

Conclusions/Discussion

This study of patients with extended LOS following elective colorectal surgery identified nuanced social and logistical issues that are not typically documented in electronic medical records. These findings underscore the importance of setting preoperative expectations with patients regarding anticipated LOS and educating providers about the potential harms associated with extended hospitalization. Even with appropriate counseling about postoperative recovery expectations, certain patients remain uncomfortable being discharged when clinicians deem them medically ready. Pressuring such patients to leave the hospital may adversely affect the patient–physician relationship. Additionally, the results of this study should be accounted for while setting reasonable metrics for LOS. Programs like Hospital at Home could serve as a helpful bridge for these select patients.

Figure 1. Frequency of Reasons Cited for Discharge Later Than Medical Clearance Date



Association of Sociobehavioral Comorbidities with Outcomes after Elective Colectomy in a National United States Veteran Cohort

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Objectives

- 1) To evaluate the association between sociobehavioral comorbidities (SBCs) and complications after elective colectomy in a national Veteran cohort.
- 2) To examine the cumulative impact of increasing SBC burden in the immediate preoperative period.

Introduction

Sociobehavioral comorbidities (SBCs), such as behavioral health distress and unmet social needs, are recognized as determinants of health outcomes. However, their relationship with postoperative complications in Veterans, who experience a high burden of these risks, is unknown. This study evaluates the association between preoperative SBCs and complications after elective colectomy in a national Veteran cohort.

Methods

We conducted a retrospective study of Veterans who underwent elective colectomy between 2009 and 2025 in the Veterans Affairs Surgical Quality Improvement Program (VASQIP). Structured data from the Veteran Health Administration (VHA) Corporate Data Warehouse were used to identify three behavioral domains (mental health disorder, suicide risk, substance use) and three social domains (social isolation, housing instability, food insecurity) present within 90 days before surgery. A composite SBC risk score was generated by summing binary SBC risks across the six domains. The primary outcome was any 30-day VASQIP-defined postoperative complication. Multilevel logistic regression with random intercepts accounting for VHA station clustering were used to estimate associations between the number of SBCs present within 90 days before colectomy and postoperative complications.

Results

Among 38,201 Veterans undergoing elective colectomy, the median age was 66 years; 5% were female; 30% were non-white; 54% underwent open operations; 46% underwent minimally invasive operations; 97% underwent partial colectomy; 3% underwent total colectomy, and 48% had cancer. Overall, 6,872 Veterans (18%) experienced any 30-day VASQIP-defined postoperative complication. In multilevel analyses, the risk of complication increased stepwise with the number of SBCs present. When SBC burden was modeled as a categorical variable, Veterans with 1 SBC had 15% higher odds of a complication (aOR 1.15, 95% CI 1.08-1.22, ref: 0 SBC), and Veterans with 4-6 SBCs had 70% higher odds of a complication (aOR 1.70, 95% CI 1.29-2.25, ref: 0 SBC; Table 1). When modeled as a continuous variable, each additional SBC was associated with 14% higher odds of a complication (aOR 1.14, 95% CI 1.11-1.18).

Conclusions

In a national cohort of Veterans, sociobehavioral comorbidities within 90 days before elective colectomy were independently associated with increased odds of postoperative complications in an exposure-response manner. These findings support systematic sociobehavioral risk assessment, targeted preoperative interventions, and future studies to clarify the biological and behavioral pathways linking SBCs to complications.

Table 1. Multilevel logistic regression of the number of sociobehavioral comorbidities present 90 days before colectomy on any VASQIP-defined 30-day complication after colectomy. Random intercepts accounted for variability of complications by VHA medical facility station.

Exposure (reference: no SBC)	Unadjusted odds ratio (95% CI)	Adjusted odds ratio* (95% CI)	p-value
Number of SBCs present 90 days preoperatively			<0.001
1 SBC	1.14 (1.07 to 1.21)	1.15 (1.08 to 1.22)	
2 SBCs	1.34 (1.23 to 1.46)	1.30 (1.19 to 1.42)	
3 SBCs	1.50 (1.29 to 1.74)	1.48 (1.27 to 1.72)	
4-6 SBCs	1.78 (1.35 to 2.32)	1.70 (1.29 to 2.25)	

Abbreviations: SBC, sociobehavioral comorbidity; CI, confidence interval.

*Adjusted for age, sex, race, body mass index, any Preoperative Acute Serious Condition, Risk Analysis Index, Operative Stress Score, American Society of Anesthesiologists Physical Status Classification System, operative approach, and postoperative diagnosis.

Actionable Sociobehavioral Comorbidities and Patient Outcomes After Major Elective Colorectal Surgery

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Objectives

- 1) Identify key preoperative sociobehavioral comorbidities that are associated with increased risk of postoperative complications after major elective colorectal surgery.
- 2) Interpret how latent sociobehavioral constructs can inform perioperative risk stratification and guide targeted screening or intervention strategies to improve surgical outcomes.

Abstract

Demographic disparities in colorectal surgical outcomes are well described but largely non-modifiable. Sociobehavioral comorbidities (SBCs) (e.g., depression/anxiety, limited resilience, and unmet social needs such as housing or transportation) represent potentially actionable risk factors that could inform perioperative risk assessment and targeted interventions. However, the specific contribution of different SBC domains to postoperative outcomes remains unclear. This study examined the associations between preoperative SBC constructs and postoperative complications after major elective colorectal surgery.

Methods

We conducted a prospective cohort study of adults undergoing major elective colorectal surgery at three hospitals within a statewide health system (July 2023–March 2025). Twenty-seven observed SBC domains were measured using a 140-item researcher-administered survey within two weeks before surgery. Structural equation modeling (SEM) was employed to identify latent constructs that represent shared variance across SBC domains, thereby reducing the number of variables and preserving statistical power. Associations between latent SBC constructs and any 30-day NSQIP-defined complication were estimated after adjustment for age, sex, race, modified frailty index (mFI-5), Social Vulnerability Index, and indication for surgery (cancer suspicion vs. benign).

Results

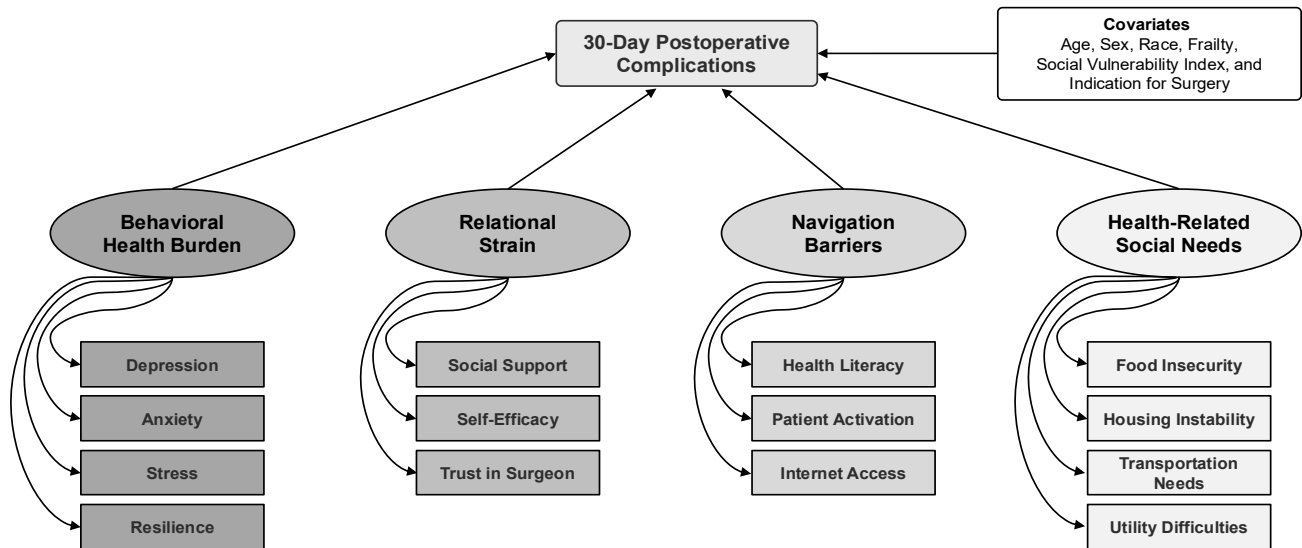
Of 441 eligible patients, 223 (51%) completed the survey. Among survey respondents, the median age was 63 years (IQR 51–71); 56.5% were female, 11.6% were non-white, the median mFI-5 score was 1 (IQR 0–1), and the median Social Vulnerability Index was 0.3 (IQR 0.1–0.5). Overall, 103 patients (46%) underwent colorectal surgery for cancer. SEM identified four latent constructs—behavioral health burden, relational strain, navigational barriers, and health-related social needs—comprising 14 of the 27 observed domains, with acceptable model fit (RMSEA=0.06, SRMR=0.07, TLI=0.88; Figure). In the adjusted model, each standard deviation

increase in the behavioral health burden construct was associated with a 36.6 percentage-point (pp) increase in predicted complication probability (95% CI 27.1-46.1; $p < 0.001$). In contrast, the health-related social needs construct demonstrated an inverse relationship (-14.5 pp, 95% CI -23.0 to -6.1; $p < 0.001$). The constructs of relational strain and navigational barriers were not significantly associated with complications.

Conclusions

Preoperative behavioral health burden (i.e., depression, anxiety, stress, and limited resilience) emerged as the sociobehavioral construct most strongly associated with postoperative complications after major elective colorectal surgery. These findings support the clinical value of preoperative behavioral health screening as an actionable target for risk stratification and perioperative interventions. Additional analyses using causal inference methods are underway to disentangle the observed inverse relationship between social needs and complications.

Figure. Structural equation model diagram illustrating the relationships among latent sociobehavioral (SBC) constructs and 30-day postoperative complications following major elective colorectal surgery. Ellipses represent latent constructs, while rectangles indicate observed SBC domains, covariates, and the outcome.



Heterogeneity in Colorectal Operative Exposure During General Surgery Training: A National Analysis of ACGME Case Logs

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Objectives

- 1) To characterize national heterogeneity in colorectal operative exposure among general surgery residents using ACGME case log data.
- 2) To contextualize resident case volumes relative to colorectal fellowship minimum requirements.

Background

Colorectal procedures are a core component of general surgery practice and training. Prior national studies have described temporal trends in operative volume; however, whether operative exposure to colorectal procedures is consistent across graduating general surgery residents is unknown.

Methods

Publicly available ACGME national case log summary reports from academic years 2018–2019 through 2024–2025 were retrospectively reviewed. Procedures analyzed included open and laparoscopic colectomy/proctectomy, stoma creation and closure, abdominoperineal resection (APR), ileal pouch–anal anastomosis (IPAA), transanal rectal tumor excision, anorectal procedures, and colonoscopy. National averages, standard deviations, and maximum resident case volumes were extracted. Variability in operative exposure was assessed using coefficients of variation and by comparing maximum case volumes with national averages. Resident case volumes were descriptively compared with ACGME colorectal fellowship minimum case requirements.

Results

Substantial heterogeneity in colorectal operative exposure was observed across all procedure categories throughout the study period. In 2024–2025, coefficients of variation ranged from 40.5% for open colectomy to greater than 100% for advanced pelvic procedures such as APR and IPAA, although interpretation of variability metrics for rare procedures was limited by low mean case volumes. Across all years, maximum case volumes exceeded national averages by more than three standard deviations for every procedure. In 2024–2025, maximum case volumes ranged from five standard deviations above the mean for colostomy to sixteen standard deviations above the mean for APR. Basic procedures demonstrated comparatively lower variability, whereas advanced pelvic procedures demonstrated markedly greater heterogeneity. While average resident case volumes were lower than colorectal fellowship minimum requirements, a subset of residents exceeded those benchmarks.

Conclusion

Colorectal operative exposure during general surgery residency varies substantially among trainees at a national level. Although some residents graduate with extensive colorectal experience, others have limited exposure, particularly for advanced pelvic procedures. Fellowship training may therefore serve, in part, to standardize operative experience among graduates whose residency exposure differs widely.

Early Onset Colorectal Cancer is Associated with Objective Financial Toxicity

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Objectives

- 1) Define objective financial toxicity.
- 2) Determine factors associated with objective financial toxicity in patients with colorectal cancer.

Background

A recent study showed patients with colorectal cancer have long-lasting financial hardship after diagnosis, with the impact spanning years beyond other cancer types. Further, early-onset (before age 50) colorectal cancer is on the rise. Though there is a growing body of literature on financial toxicity after cancer diagnosis, many use patient-reported markers of financial hardship, and few use direct objective measures of financial health. Credit score is a composite score of payment history and credit balances, utilization & depth, and is a key indicator of financial wellbeing. Low credit score reflects significant financial strain, with Subprime Credit Score (SCS, ≤ 600 points) marking extreme difficulty in obtaining traditional loans. We aimed to identify factors associated with objective financial toxicity defined by SCS in patients with colorectal cancer.


Methods

In this retrospective cohort study, patients age ≥ 21 diagnosed with colorectal cancer between 2010-2019 who underwent partial or total colectomy were identified through the Massachusetts Cancer Registry and linked with credit reports. Patients with pre-diagnosis SCS, those who died during the study period, and those with missing data were excluded.

Using univariate analysis and multivariable logistic regression, we assessed associations with SCS 2 years post-diagnosis. Odds of SCS were adjusted for sociodemographic factors (age at diagnosis, race, marital status, sex, education, tobacco use history), financial factors (individual income, insurance status, pre-diagnosis bankruptcy), neighborhood characteristics (estimated median household income, poverty indicator, based on zip code), and cancer characteristics (extent of disease, treatment type).

Results

63 patients (2.9%) of 2,158 developed SCS two years after diagnosis. Most patients were white (91%), married/partnered (62%), female (59%), non-smokers (53%), with a college education or more (54%), and public insurance (57%). Median individual income was \$52,000 and median estimated household income was \$86,570.

In a univariate analysis, SCS was associated with early-onset disease (24% vs 11%, $p<0.001$), Black or Hispanic race (11% vs 3%, 16% vs 3% respectively, $p<0.001$), lower income (71% vs 43%, $p<0.001$), lack of insurance (3% vs 1%, $p<0.001$), living in areas with lower median household income (16% vs 6%, $p=0.003$), living in areas of higher poverty (49% vs 29%, $p=0.002$), and pre-diagnosis bankruptcy (19% vs 3%, $p<0.001$). Extent of disease and treatment type did not have an association with SCS. In a multivariable analysis, higher odds of SCS were associated with early-onset disease (aOR 2.96 [95% CI 1.47, 5.94]), Black or Hispanic race (aOR 3.45 [95% CI 1.29, 9.23] and 4.64 [95% CI 1.93, 11.13] vs White), and individual income below median (aOR 2.46 [95% CI 1.18, 5.11]). 

Conclusion

Credit score is an important financial indicator that affects borrowing ability, interest rates, and the ability to rent or purchase housing. Though studies exist examining financial toxicity in cancer care, few use reliable objective markers. Early-onset colorectal cancer is associated with poor financial outcomes, with those diagnosed before age 50 over twice as likely to develop subprime score compared to those diagnosed after age 50. Additionally, Black and Hispanic race is strongly associated with financial toxicity. This highlights the need for targeted interventions to mitigate disparities, as well as advocacy for health policy change.

	Total	Credit Score ≤ 600 2 Years from Diagnosis (Subprime)	Credit Score > 600 2 Years from Diagnosis (Prime)	P- value^a
n, (%)	2,158 (100.0%)	63 (2.9%)	2,095 (97.1%)	
Age at Diagnosis, Years				
<50	245 (11.4%)	16 (24.2%)	229 (10.9%)	<0.001
≥50	1,913 (88.6%)	50 (75.8%)	1,866 (89.1%)	
Race				
White (Ref)	1,962 (90.9%)	43 (68.3%)	1,919 (91.6%)	<0.001
Black	61 (2.8%)	7 (11.1%)	54 (2.6%)	
Hispanic	66 (3.1%)	10 (15.9%)	56 (2.7%)	
Asian	69 (3.2%)	3 (4.8%)	66 (3.2%)	
Marital Status				
Unmarried	814 (37.7%)	29 (46.0%)	785 (37.5%)	0.167
Married/Partnered (Ref)	1,344 (62.3%)	34 (54.0%)	1,310 (62.5%)	
Sex				
Male (Ref)	886 (41.1%)	29 (46.0%)	857 (40.9%)	0.415
Female	1,272 (58.9%)	34 (54.0%)	1,238 (59.1%)	
Education				
Less than College	987 (45.7%)	34 (54.0%)	953 (45.5%)	0.183
College or More (Ref)	1,171 (54.3%)	29 (46.0%)	1,142 (54.5%)	
Tobacco Use History				
Never (Ref)	1,139 (52.8%)	33 (52.4%)	1,106 (52.8%)	0.949
Ever	1,019 (47.2%)	30 (47.6%)	989 (47.2%)	
Individual Income at Diagnosis				
<\$30,000	66 (3.1%)	2 (3.2%)	64 (3.1%)	<0.001
\$30,000-49,000	947 (43.9%)	45 (71.4%)	902 (43.1%)	
\$50,000-69,000 (Ref)	620 (28.7%)	10 (15.9%)	610 (29.1%)	
\$70,000-89,000	275 (12.7%)	2 (3.2%)	273 (13.0%)	
\$90,000-109,000	114 (5.3%)	2 (3.2%)	112 (5.3%)	
≥\$110,000	136 (6.3%)	2 (3.2%)	134 (6.4%)	
Insurance Status				
Uninsured	5 (0.2%)	2 (3.2%)	3 (0.1%)	<0.001
Private Insurance (Ref)	917 (42.5%)	28 (44.4%)	889 (42.4%)	
Public Insurance	1,236 (57.3%)	33 (52.4%)	1,203 (57.4%)	
Estimated Median Household Income^b				
<\$30,000	5 (0.2%)	1 (1.6%)	4 (0.2%)	0.003
\$30,000-49,000	135 (6.3%)	10 (15.9%)	125 (6.0%)	
\$50,000-69,000 (Ref)	505 (23.4%)	16 (25.4%)	489 (23.3%)	

\$70,000-89,000	496 (23.0%)	15 (23.8%)	481 (23.0%)	
\$90,000-109,000	537 (24.9%)	13 (20.6%)	524 (25.0%)	
≥\$110,000	480 (22.2%)	8 (12.7%)	472 (22.5%)	
Poverty Indicator^b				
0%-<5% (Ref)	783 (36.3%)	14 (22.2%)	769 (36.7%)	0.002
5%-<10%	748 (34.7%)	18 (28.6%)	730 (34.8%)	
10%-<20%	435 (20.2%)	19 (30.2%)	416 (19.9%)	
20%-100%	192 (8.9%)	12 (19.0%)	180 (8.6%)	
Pre-Diagnosis Bankruptcy				
No Pre-Dx Bankruptcy (Ref)	2,076 (96.2%)	51 (81.0%)	2,025 (96.7%)	<0.001
Pre-Dx Bankruptcy	82 (3.8%)	12 (19.0%)	70 (3.3%)	
Extent of Disease				
Localized	994 (46.1%)	22 (34.9%)	972 (46.4%)	0.181
Regional	998 (46.2%)	36 (57.1%)	962 (45.9%)	
Distant	166 (7.7%)	5 (7.9%)	161 (7.7%)	
Treatment				
Surgery Only (Ref)	1,340 (62.1%)	31 (49.2%)	1,309 (62.5%)	0.101
Surgery & Chemo	793 (36.7%)	31 (49.2%)	762 (36.4%)	
Surgery & Chemo & Rad	25 (1.2%)	1 (1.6%)	24 (1.1%)	

^aP-values from t-tests for continuous variables and chi-squared tests for categorical variables.

^b Calculated based on patient's zip-code.

“Surgery Did Something to My Heart and Soul:” A Community-Engaged Qualitative Study of Sociobehavioral Comorbidities and Postoperative Complications After Colorectal Surgery

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Objectives

- 1) To characterize the lived experiences of patients with sociobehavioral comorbidities recovering from colectomy in the setting of complications.
- 2) To understand how sociobehavioral comorbidities manifest in the postoperative period.

Introduction

Sociobehavioral comorbidities (SBCs), including psychological distress and unmet social needs, are associated with increased odds of a postoperative complication. However, the ways in which SBCs manifest in the setting of complications after colorectal surgery is understudied. The purpose of this study was to characterize the lived experiences of patients with sociobehavioral comorbidities recovering from colorectal surgery in the setting of complications.

Methods

We conducted a community-engaged qualitative study as part of a sequential explanatory mixed-methods design at a large academic medical center. In the quantitative arm, patients who underwent elective colectomy completed a 140-item preoperative SBC assessment (June 2023 to November 2025). In the qualitative arm, eligible patients screened positive for SBCs and either experienced a 90-day postoperative complication (core cases) or did not (positive deviants). Participants were selected using criterion-based and stratified purposive sampling to capture variation in SBC burden and clinical and demographic characteristics. Community-based research fellows (MA, AR) and clinician-researchers (CR, KS) co-designed the interview guide and conducted one-on-one interviews in-person or via videoconference. Transcripts were analyzed using a hybrid inductive-deductive, team-based coding approach and thematic analysis.

Results

Fifteen patients were interviewed. Interviews ranged in duration from 7 to 126 minutes. Three themes described how patients’ behavioral health influenced their experiences of colectomy and complications: 1) Patients interpreted their surgical experiences through the lens of their mental health. Those without mental health diagnoses described surgery as “like nothing happened,” while patients with preexisting mental health needs were re-traumatized by the experience, particularly if

they had a stoma. 2) Patients reflected on their own mortality during the perioperative period, and reflections mirrored their SBC milieu. Patients with financial instability described preparing their affairs for family members in the event of “not coming home,” while many with a history of major depression reported suicidal ideation. 3) Patients described a fundamental shift within themselves as a result of their surgical experiences. Some reported renewed resilience to “charge through life like a bull,” whereas others felt “destroyed” by the aftermath of their surgical course (Table 1).

Conclusion

This study revealed an interplay between preexisting sociobehavioral comorbidities and experiences of recovery and complication after colectomy. Further investigation is needed to model how these factors interact to determine the best target for future risk mitigation interventions.

Table 1. Themes from the lived experiences of patients with sociobehavioral comorbidities following postoperative complications after colectomy.

Theme	Patient Details	Surgical Details	Representative Quote
Patients interpreted their surgical experiences through the lens of their mental health.	47-year-old male immigrant with no mental health needs, though uninsured with limited access to care	Stage 4 colon cancer, colectomy, uncomplicated recovery	<i>“After one month, I go back to the gym and it was like nothing happened, only chemo every two weeks.”</i>
	46-year-old male with anxiety, depression, limited resilience, and multiple health-related social needs	Crohn’s disease, ileal pouch-anal anastomosis, prolonged ileus	<i>“I had no more brain. I had no interest in TV, no care if it’s day or night. I think that’s all my depression. It’s hard to go out with family and it’s hard to explain myself. I still have bad dreams about [surgery]. Sometimes I feel I still have the bag.”</i>
Patients reflected on their own mortality during the perioperative period, and the reflections mirrored their sociobehavioral comorbidities.	67-year-old female with depression, anxiety, history of abuse, and multiple health-related social needs	Complicated diverticulitis, sigmoid colectomy, prolonged ileus	<i>“Prior to surgery, I didn’t have anything in writing whatsoever. Before surgery, it was like get this, sign this power of attorney. I wrote up all sorts of notes, how to do my online banking and all my passwords and all my cards. I listed everything to do with my life insurance.”</i>
	66-year-old female with depression, anxiety, suicidal ideation, and high perceived stress	Diverticulitis, sigmoidectomy, stricture requiring redo sigmoidectomy with diverting loop ileostomy complicated by fascial dehiscence	<i>“I thought if I couldn’t reverse this [ostomy], I’m not going to live like this. I’m going to take my life. I thought I would take every pill in my house, and that’s a lot of them.”</i>
Patients described a fundamental shift within themselves as a result of the surgical experience.	67-year-old female with depression, anxiety, history of abuse, and multiple health-related social needs	Complicated diverticulitis, sigmoid colectomy, prolonged ileus	<i>“I cleaned every cupboard in the kitchen. There’s stuff that’s been in there for 20 years. I just cleaned out my bedroom closet, but I’m trying to go through the house because am I going to keep this house? Am I going to sell this house? And it’s making me want to retire. You know, it’s changed my whole life. Just changed my whole life.”</i>
	51-year-old female with depression, limited resilience, intimate partner violence, and limited social support	Mucinous appendiceal adenocarcinoma, cytoreductive surgery, deep organ space infection requiring drainage and psychiatric admission for suicidal ideation	<i>“You need to tell patients that, here’s the thing. You’re going to be miserable. You’re already miserable. You’re poor? You’re going to take a loan to do this. Let us be honest with you and tell you you’re going to be destroyed by this procedure. Cancer changes people. The procedure itself, it did something to my heart and my soul.”</i>

Meeting in the Middle: A Combined Transvaginal and Transrectal Repair for Rectovaginal Fistulas

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Objectives

- 1) To discuss an alternative, combined approach to rectovaginal fistula repair.
- 2) To evaluate clinical outcomes and recurrence rates associated with a combined approach to rectovaginal fistula repair.

Purpose/Background

Rectovaginal fistulas (RVFs) are defined as low rectal or anal fistulas that epithelialize to the vagina. They can be highly distressing, often presenting with the passage of stool per vagina. The most common causes of RVFs include obstetric injury followed by infection, Crohn's disease, and malignancy. Surgical repair remains the primary treatment, though approaches vary and include transvaginal, transperineal, and transrectal techniques.

Current clinical practice guidelines from the American Society of Colon and Rectal Surgeons recommend transrectal repair; however, this recommendation is based on low-quality evidence. While the surgical approach is typically tailored to the individual patient, no single approach has been shown to be superior. To date, despite multiple studies analyzing surgical techniques for RVF repair, there has been no analysis of a combined transvaginal and transrectal approach. Here, we present a novel technique that incorporates both transvaginal and transrectal repair in the management of rectovaginal fistulas.

Methods/Interventions

We conducted a retrospective review of medical records from an urban, single-institution tertiary care center between 2018 and 2026. Patients who underwent RVF repair using a combined approach by colorectal surgery (transrectal) and gynecology (transvaginal) were included. Collected variables included BMI, smoking status, ASA classification, recurrence, and days from surgery to last follow-up.

Results/Outcomes

The transvaginal approach with urogynecology involves positioning the patient in lithotomy with excision of the fistula and a layered closure. Following this, the patient is positioned in prone jack knife with transanal mucosal advancement flap to further buttress the fistula.

A total of eleven patients underwent the combined RVF repair approach. Among the eleven patients, none experienced recurrence during the study period. The mean duration from surgery to the last follow-up was 85 days (range, 14–282 days). No patients had a history of smoking, and the mean BMI was 30.89 kg/m².

Conclusion/Discussion

This small retrospective case series demonstrated no recurrences up to 85 days postoperatively (range, 14–282 days). Rectovaginal fistulas are relatively uncommon, with reported recurrence rates ranging from 50% to 85%. Patients often require multiple procedures to achieve complete healing. Prior to this study, no combined transvaginal and transrectal approach had been described. We speculate that buttressing from both sides and repairing both the low and high pressure system is what makes this a superior repair. A limitation of this study is its small sample size. Given our 0% recurrence rate compared with previously reported outcomes, a combined approach involving both colorectal surgery and gynecology should be considered a potential standard of care in multidisciplinary centers.

Red Rubber Catheter Stabilization in a Two-Piece Ostomy Appliance: A Step-by-Step Technique

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Objectives

- 1) Demonstrate technique to reduce red rubber catheter-stoma dislodgment.
- 2) Demonstrate a technique for re-securement during subsequent ostomy changes.

Red rubber catheters are used to stent ostomies to allow for temporary bowel decompression in ostomates. This technique is effective for mitigating the effects of edema, which can cause functional obstruction. It is challenging to secure the catheter to the surrounding abdominal wall or stoma, and further the catheter is subjected to antegrade peristaltic forces. This frequently leads to catheter dislodgment, which results in ineffectiveness of the catheter, and the discomfort of replacement. While the frequency is unknown, anecdotally this occurs frequently.

Technique

We demonstrate our approach to securing red rubber catheters in two-piece ostomy appliances. The technique is as follows:

1. Prepare the patient and place the base of a two piece stoma appliance in standard fashion.
2. Obtain a red rubber catheter (typically 14F to 20F) and lubricate it.
3. Digitize the stoma to confirm fascial patency.
4. Pass the red rubber catheter into the stoma to the subfascial level.
5. To secure, use 0 silk suture x2 to tie the catheter circumferentially, and secure the tie to the catheter at approximately the level it exits the ostomy.
6. Secure the silk ties by threading them through the circular interface where the two pieces of the ostomy appliance clip together, then apply the outer piece of the appliance. This clips the silk ties in place, reducing the probability of dislodgement.

When subsequent appliance changes occur, the red rubber catheter can be easily re-secured by re-tensioning the silk ties and securing them between the two pieces of the ostomy appliance.

SATURDAY

Session 2

Benign

ABSTRACTS

Anal Cytology as a Predictor of Anoscopy Outcomes in People Living with HIV: Findings from Two Large University Health Systems

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Objectives

- 1) Analyze the concordance between anal cytology categories and histologic outcomes on anoscopy-guided biopsy in PLWH.
- 2) Discuss the implications of cytology–histopathology discordance for anal cancer screening strategies in high-risk populations.

Background

Anal squamous cell carcinoma occurs disproportionately among people living with HIV (PLWH) due to immune dysfunction and HPV co-infection. Squamous intraepithelial lesions (SIL), including atypical squamous cells of undetermined significance (ASC-US), low-grade SIL (LSIL), and high-grade SIL (HSIL) represent pre-cancerous lesions on cytology. However, the predictive value of cytology for histologic disease remains uncertain. Recent clinical trial data demonstrated that treating HSIL reduces anal cancer incidence, prompting expansion of national screening recommendations. Given changes to guidelines despite unclear predictive accuracy, we aim to evaluate relationships between anal cytology results and biopsy-confirmed pathology.

Methods

A retrospective chart analysis was performed for PLWH who underwent anal cytology at UConn Health (UCH) and Yale New Haven Hospital (YNHH, 2013 – 2025). Records were reviewed for demographics, HIV clinical markers, cytology, and anoscopic findings (standard or high-resolution). Patients were included if both cytology and subsequent biopsy results were available. Given anoscopy is generally performed for abnormal screening or surveillance of prior dysplasia, all cases with “normal” cytology with subsequent biopsy were performed due to historical abnormal findings and thus excluded from this analysis.

Results

The study included 130 patients, all assigned male at birth, with a median age of 48 years (IQR 35–61). Most patients were virally suppressed (84%), with a median CD4 count of 718 cells/mm³. Cytology results included ASC-US in 70 patients (54%), LSIL in 53 (41%), and HSIL in 7 (5%). Biopsy results included normal histology in 27 patients (21%), AIN I in 35 (27%), AIN II in 19 (14%), AIN III in 48 (37%), and squamous cell carcinoma in 1 patient (1%).

Anal cytology category was significantly associated with histopathologic outcome (Fisher's exact test, $p = 0.00001$; Cramer's $V = 0.425$), indicating that cytology stratified risk of dysplasia severity. Higher cytologic grades corresponded to increased likelihood of high-grade disease, with 86% of HSIL cytology demonstrating AIN III on biopsy. However, cytology frequently underestimated disease severity. Among patients with AIN III, cytology showed ASC-US in 52%, LSIL in 35%, and HSIL in 13%. Among patients with ASC-US cytology, biopsy findings included normal histology in 21 (30%), AIN I in 18 (26%), AIN II in 6 (8%), and AIN III in 25 (36%). Similarly, LSIL cytology corresponded to normal histology in 6 patients (11%), AIN I in 16 (30%), AIN II in 13 (25%), AIN III in 17 (32%), and squamous cell carcinoma in 1 patient (2%).

Conclusions

Anal cytology demonstrated a statistically significant, moderate association with biopsy-confirmed anal dysplasia among people living with HIV; however, discordance across cytologic categories indicates that cytology alone cannot reliably exclude high-grade disease. High-grade dysplasia was identified across all cytology groups, reinforcing the need for diagnostic anoscopy and biopsy following abnormal screening results. Neither CD4 count nor viral suppression status was associated with cytologic or histologic outcomes. Prospective follow-up of screened patients with standardized anoscopy/biopsy protocols is warranted to quantify the negative predictive value of cytology and optimize screening pathways for PLWH.

Presentation Patterns of Diverticulitis During the COVID19 Pandemic

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Objectives

- 1) Characterize demographics and severity of diverticular disease in a community setting prior to and during the COVID19 pandemic.
- 2) Identify characteristics and outcomes associated with patients with early onset diverticulitis.

Purpose/Background

Several database studies have demonstrated a higher incidence of diverticulitis and higher rate of emergency surgery for diverticulitis during the COVID19 pandemic as well as an increased incidence of perforated diverticulitis in the COVID positive population. This study aimed to describe the demographics and severity of diverticular disease at a community hospital and its referring surgery clinics prior to and during the COVID19 pandemic.

Methods/Interventions

Following IRB approval, database query was used to identify patients who presented during a 6-month period (Jan 2019 – Jun 2019) prior to the onset of the COVID19 pandemic and a separate 6-month period during the COVID19 pandemic (Jan 2021 – Jun 2021). Patients who presented to their primary care provider, the emergency department, and for elective surgery for diverticular disease were included. Manual chart review was performed to collect demographics and clinical data.

Results/Outcomes

A total of 78 patients presented for diverticulitis in the pre-pandemic period compared to 108 patients during the pandemic. Demographic characteristics including sex and age were similar. Insurance coverage, smoking status, and ASA (American Society of Anesthesiologists) grade were also comparable between the two cohorts. Notably, there was more complicated diverticular disease during the pandemic (58% vs 44%, $p < 0.05$) and more patients with fistulizing disease (13% vs 3%). However, the rate of urgent or emergent surgery was similar, as was length of hospitalization. There was a higher rate of readmission or re-presentation to the ER in the pandemic cohort (29% vs 16%). Interestingly, during the pandemic, only 19% of patients were tested for COVID at the time of their presentation, 10% of which were COVID positive (Tables 1 and 2). When looking specifically at patients under age 45 of young at the time of diverticulitis onset, it was noted that patients were predominantly male ($p < 0.05$) with equivalent rates of complicated diverticulitis compared to the older cohort. Younger patients had a shorter length of stay and were less likely to undergo emergency surgery.

Conclusion/Discussion

This study confirms anecdotal data demonstrating increased diverticulitis severity in patients presenting during the COVID19 pandemic despite comparable ASA grade and demographics. It is unclear if lockdown-driven differences in lifestyle, virus exposure, or other longer-term physiologic changes are driving an increase in complicated cases. However, higher numbers of patients with fistulizing disease suggests a chronicity that may predate the onset of the pandemic. During the pandemic, a smaller percentage of patients underwent surgery during the index presentation. However, there was a higher readmission rate compared to pre-pandemic data. This may be attributed to an effort to decrease hospital length of stay, but with questionable impact on cost and patient outcomes. Future studies will examine patients diagnosed with diverticulitis over a number of years to identify continuous changes in disease pattern and factors associated with worse disease.

Open Versus Minimally Invasive Elective Colectomy with Splenic Flexure Mobilization for Diverticulitis: National Outcomes from a Propensity-Matched Analysis

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Objectives

- 1) To evaluate the short-term outcomes of open versus MIS splenic flexure mobilization during elective segmental colectomy for diverticulitis.
- 2) To use length of stay (LOS) as primary outcome and 30-day adverse events as secondary outcomes.

Introduction

Splenic flexure mobilization may be necessary to achieve a tension-free anastomosis in patients undergoing elective sigmoidectomy for diverticulitis. Comparative outcomes between open and minimally invasive approaches (MIS) remain poorly defined. This study aimed to evaluate the short-term outcomes of open versus MIS splenic flexure mobilization during elective segmental colectomy for diverticulitis.

Methods

We queried the TriNetX Research Network to identify adult patients undergoing open or minimally invasive elective colectomy for diverticulitis with splenic flexure mobilization. TriNetX is a global health research network that queries and aggregates de-identified patient data from electronic health records, constantly updating the dataset to offer more current and accurate insights for research feasibility and analysis. Patient records used in this study included up to 20 years of longitudinal data and were current as of October 2025. Patients were stratified by operative approach: open versus MIS (laparoscopic or robotic). Propensity score matching was performed to balance demographics and comorbidities. The study's primary outcome was length of stay (LOS), and 30-day adverse events were analyzed as secondary outcomes.

Results

A total of 10,581 patients were identified. 3,055 patients underwent open, and 7,526 patients underwent MIS splenic flexure mobilization and segmental colectomy. After propensity score matching, 5,428 were identified, including 2,714 undergoing open and 2,714 undergoing MIS splenic flexure mobilization. At three days, patients in the open group were 14% less likely to be discharged (RR 0.86, 95% CI: 0.83-0.89). At 30 days, patients in the open group were more likely to require blood transfusions postoperatively (RR 1.98, 95% CI: 1.42-2.76). Postoperatively, the open cohort was more likely to experience sepsis (RR 2.73, 95% CI: 2.07-3.6), surgical wound

dehiscence (RR 4.7, 95% CI: 3-7.34), acute renal failure (RR 1.86, 95% CI: 1.57-2.24), and ventilator dependence (RR 4.17, 95% CI: 2.66-6.56) at 30 days.

Conclusion

Our findings suggest that sigmoid colectomy with splenic flexure mobilization performed in a minimally invasive fashion is associated with significantly shorter LOS and postoperative morbidity compared to an open approach. A substantial number of patients with diverticulitis still undergo open surgery in elective settings. To improve patient outcomes following surgery for diverticulitis, there needs to be an accelerated focus on increasing the adoption of MIS techniques, particularly as open splenic mobilization remains a common practice.

Table 1. (Post-matching)

Category	Characteristic/Procedure	Mean ± SD (After)	#	Patients (After)	% of Cohort (After)	P-Value (After)
Demographics						
Age	Open	66.8±12.9		2,628	100%	
	MIS	67±12.3		2,628	100%	
Race	Open			2,012	76.56%	
	MIS			1,980	75.34%	
Gender	Open			1,026	39.04%	
	MIS			1,084	41.25%	
Diagnosis						
Sepsis, unspecified organism	Open			499	18.39%	0.9721
	MIS			500	18.42%	
Ulcerative colitis	Open			125	4.61%	0.3171
	MIS			110	4.05%	
Crohn's disease of small intestine without complications	Open			16	0.59%	0.8614
	MIS			17	0.63%	
Transfusion, blood or blood components	Open			106	3.91%	0.944
	MIS			105	3.87%	
Body mass index [BMI] 30-39, adult	Open			527	19.42%	0.6792
	MIS			515	18.98%	
Body mass index [BMI] 40 or greater, adult	Open			233	8.59%	0.77
	MIS			227	8.36%	
Type 1 diabetes mellitus	Open			53	1.95%	0.8459
	MIS			55	2.03%	
Type 2 diabetes mellitus	Open			594	21.89%	0.6444
	MIS			580	21.37%	
Essential (primary) hypertension	Open			1,747	64.37%	0.8649
	MIS			1,753	64.59%	
Acute myocardial infarction	Open			139	5.12%	0.7089
	MIS			133	4.90%	
Chronic ischemic heart disease	Open			493	18.17%	0.4779
	MIS			473	17.43%	
Chronic kidney disease (CKD)	Open			375	13.82%	0.5254
	MIS			359	13.23%	
Nicotine dependence	Open			783	28.85%	0.2342
	MIS			823	30.32%	
Other chronic obstructive pulmonary disease	Open			368	13.56%	0.6647
	MIS			379	13.97%	

Table 2.

Outcome	Open Risk	MIS Risk	Risk Ratio (RR)	95% CI for RR	p-value for Risk Difference
3 Days					
Discharge at 3 Days	70.35%	81.99%	0.858	(0.832,0.885)	<0.0001
30 Days					
Transfusion of blood	3.72%	1.88%	1.98	(1.422,2.761)	<0.0001
Return to ER	11.53%	7.78%	1.483	(1.256,1.752)	<0.0001
Sepsis	6.63%	2.43%	2.727	(2.067,3.598)	<0.0001
Wound dehiscence	3.98%	0.85%	4.696	(3.003,7.342)	<0.0001
Stroke	0.88%	0.92%	0.96	(0.55,1.677)	0.8859
Acute kidney failure	11.61%	6.19%	1.875	(1.567,2.244)	<0.0001
Ventilator	3.54%	0.85%	4.174	(2.656,6.558)	<0.0001

The open approach was associated with reduced odds of being discharged at 3 days, clearly demonstrating a longer LOS, while MIS was associated with significantly reduced odds of multiple postoperative complications. Furthermore, intraoperative blood transfusion served as a valuable proxy for procedural difficulty, and the significantly higher risk demonstrated by open surgery implies that it is more technically challenging than the MIS approach. These results represent the first nationwide comparison of these groups using the TriNetX database.

Self-expanding Colonic Metal Stents for Benign and Malignant Large Bowel Obstruction. Outcomes from a Large Academic Institution

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Objectives

- 1) To evaluate the safety profile and complication rates associated with self-expanding metal stent (SEMS) placement in patients presenting with benign and malignant large bowel obstruction at a large academic institution.
- 2) To assess the clinical and oncologic outcomes of SEMS placement, including avoidance of stoma creation, ability to serve as a bridge to elective surgery, and completion of systemic therapy in patients with resectable malignant obstruction.

Abstract/Background

Self-expanding metal stents (SEMS) have been used in the past years to relieve large bowel obstructions, often as a temporary measure to alleviate the obstruction and perform a definitive surgery in a more elective setting. However, multiple complications have been reported with metal stents including migration, stent obstruction, hemorrhage or even perforation with potential upstaging of colon and rectal cancer, precluding acceptance within the colorectal surgery community. We present in this study our own experience with the use of SEMS for benign and malignant large bowel obstruction.

Methods

We identified patients that had colonic SEMS placed in our institution. Patient demographics and comorbidities were collected. Inclusion criteria were patients who came in with symptomatic colonic obstruction from either benign or malignant etiologies in which stent was placed as a “bridge” to surgery or for palliative reasons to relieve the obstruction. Variables included location of the obstruction, periprocedural complications such as bleeding, migration, perforation, stent obstructions, and need for emergent surgery after stent placement. Oncologic variables including tumor staging, recurrence and ability to complete neoadjuvant and/or adjuvant therapy were analyzed.

Results

54 patients had SEMS placed in our institution. 42 patients (77.8%) had a stent placed for malignant large bowel obstruction and 12 patients (22.2%) for benign strictures. 19 patients (35.2%) had stent placed for palliative intent and 35 patients (64.8%) had the stent placed with intentions to bridge to a definitive surgery in an elective setting. 79.6% of patients did not suffer

any technical complications related to stent placement. 11 (21.4%) patients suffered a technical complication related to the stent, and 9 (81.8%) patients required an operation to solve the complication (Table 2). 7 (70%) patients who had a resectable malignant bowel obstruction and were eligible for neoadjuvant therapy were able to complete neoadjuvant treatment and oncologic resection of the tumor. 65.2% of the patients avoided a stoma after stent placement.

Conclusion

SEMS are a feasible option for patients with large bowel obstructions. Most patients are able to avoid a stoma with successful stent placement. Patients with resectable malignant bowel obstruction eligible for neoadjuvant therapy are able to complete oncologic treatment after placement of colonic stent.

Table 1. Demographics	Summary
N (%) or mean (SD)	54
Median age at time of stent placement (IQR)	63 (53-78)
Race	
White	48 (90.6%)
Black or African American	3 (5.7%)
Asian	2 (3.8%)
Ethnicity	
Hispanic or Latino	7 (13.2%)
BMI	27.931 (7.199)
Current smoker? (Y/N)	
Yes	10 (18.5%)
DM?	
Yes	8 (14.8%)
COPD?	
Yes	5 (9.3%)
CHF?	
Yes	1 (1.9%)
IBD (Crohns or Ulcerative Colitis)?	
Yes	2 (3.7%)
Personal history of cancer?	
Yes	30 (55.6%)
Personal history of colon or rectal cancer?	
Yes	36 (66.7%)
Family history of colon or rectal cancer?	
Yes	8 (15.1%)
Alcohol Use Disorder?	
Yes	7 (13.0%)
Prior Pelvic Surgery?	
Yes	8 (14.8%)
Prior Abdominal Surgery?	
Yes	22 (40.7%)

ASA at time of stent placement	
1	2 (3.7%)
2	20 (37.0%)
3	28 (51.9%)
4	4 (7.4%)

Table 2. Stent Placement Characteristics	Summary
N (%) or mean (SD)	54
Etiology of obstruction leading to stent placement	
Malignancy	42 (77.8%)
Benign (diverticular stricture)	12 (22.2%)
Reason for stent placement	
Palliative	19 (35.2%)
Bridge for definitive treatment	35 (64.8%)
If bridge to definitive surgery was the intent, did patient suffer a complication from the stent that required emergency surgery?	
Yes	8 (15.1%)
Days from stent placement to definitive surgery	68 (59.08)
What surgery did patient end up receiving?	
Transverse colectomy	1 (4.3%)
Left colectomy	6 (26.1%)
Sigmoidectomy	6 (26.1%)
LAR	7 (30.4%)
Total abdominal colectomy	1 (4.3%)
Other	2 (8.7%)
Was a stoma created at the time of surgery?	
Yes	8 (34.8%)
What type of stoma was created?	
Diverting Loop Ileostomy (DLI)	6 (75.0%)
End Colostomy	2 (25.0%)
30-day complications following definitive surgery:	
Urinary retention	1 (1.9%)
Ileus	1 (1.9%)
Surgical Site Infection	1 (1.9%)
Return to OR	1 (1.9%)
Other	1 (1.9%)
Location of stent placement in the large intestine	
Transverse Colon	3 (5.6%)
Splenic Flexure	3 (5.6%)
Descending Colon	10 (18.5%)
Sigmoid	24 (44.4%)
Rectum	7 (13.0%)
Rectosigmoid junction	7 (13.0%)

Complications following stent placement	
Migration	3 (5.6%)
Perforation	4 (7.4%)
Stent occlusion	4 (7.4%)
None	43 (79.6%)
Was an emergent operation needed for this complication?	
Yes	9 (81.8%)
Days from stent to emergency surgery	56.000 (80.120)
Emergency surgical approach	
Open	9 (100.0%)
If yes, what type of surgery was performed	
Sigmoidectomy	2 (22.2%)
Sigmoidectomy with end colostomy creation (Hartmanns)	4 (44.4%)
Subtotal Colectomy with end ileostomy creation	2 (22.2%)
Diverting loop ileostomy creation only	1 (11.1%)
30-day complications following emergency surgery:	
Acute Kidney Injury	2 (3.7%)
Dehydration	1 (1.9%)
Surgical Site Infection	1 (1.9%)
Abdominal/pelvic abscess	1 (1.9%)
Sepsis	3 (5.6%)
Return to OR	1 (1.9%)
Did the patient die within 30 days of stent placement?	
Yes	2 (3.7%)
Was death due to stent-related complications and/or subsequent surgery?	
Yes	1 (50.0%)

Table 3. Oncologic Outcomes	Summary
N (%) or mean (SD)	42
Staging	
Pathologic only	17 (40.5%)
Clinical only	14 (33.3%)
Both	4 (9.5%)
cT staging	
T3	8 (19%)
T4a	5 (11.9%)
T4b	3 (7.1%)
cN staging	
N0	3 (7.1%)
N1	2 (4.8%)
N2	6 (14.3%)
N+	5 (11.9%)

cM staging	
M0	4 (9.5%)
M1	14 (33.3%)
pT staging	
T3	6 (28.6%)
T4a	11 (52.4%)
T4b	3 (14.3%)
T0	1 (4.8%)
pN staging	
N0	5 (23.8%)
N1	11 (52.4%)
N2	5 (23.8%)
pM staging	
M0	9 (50.0%)
M1	8 (44.4%)
Mx	1 (5.6%)
While awaiting surgery with stent in place, was the patient able to complete neoadjuvant therapy?	
Yes	7 (17.5%)
No	3 (7.5%)
Not treated with neoadjuvant therapy	14 (35.0%)
Underwent emergency surgery with resection followed by systemic treatment	1 (2.5%)
N/A palliative	15 (37.5%)
Type of neoadjuvant therapy	
Chemo only	4 (57.1%)
Chemo+radiation	3 (42.9%)
Adjuvant therapy following emergency surgery	
Chemo only	1 (100.0%)
Was there pathologic downstaging?	
Yes	1 (14.3%)
No	3 (42.9%)
Does not have clinical staging	3 (42.9%)
Did patient have a recurrence after surgery?	
Yes	3 (7.7%)
No	19 (48.7%)
N/A palliative	17 (43.6%)
Distant recurrence	3 (100.0%)
Local recurrence	0
Did patient receive adjuvant therapy?	
Yes	15 (39.5%)
No	6 (15.8%)
N/A Palliative	17 (44.7%)
Months to distant recurrence from definitive surgery	12.09 (6.4)

Early Foley Catheter Removal after Segmental Colectomy with Colovesical Fistula Closure for Patients with Complicated Diverticulitis: A Single-Arm, Prospective Trial

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Objectives

- 1) To evaluate the safety of early postoperative Foley catheter removal following segmental colectomy with colovesical fistula closure for diverticulitis, as determined by the absence of postoperative bladder leakage on cystogram.
- 2) To assess postoperative clinical outcomes related to early Foley catheter removal, including the necessity for catheter reinsertion, recurrence of colovesical fistula, and 30- and 90-day postoperative complication and readmission rates.

Background

Colovesical fistulas (CVF) secondary to diverticulitis are typically treated with segmental resection and bladder repair, followed by postoperative bladder decompression using a Foley catheter. Prolonged catheterization increases postoperative urinary tract infection risk, but the optimal duration of catheterization remains unclear. We hypothesized that early Foley removal would not increase the bladder leak rate.

Methods

This single-arm prospective trial (NCT05235204), conducted at a tertiary academic center from 6/2019-10/2025, included patients undergoing segmental colectomy for CVF due to diverticulitis. All patients underwent an intraoperative bladder leak test. Bladder fistula management was surgeon-dependent. Patients underwent a cystogram on postoperative days two or three. The Foley catheter was removed if no extravasation was identified. The primary study outcome was bladder contrast extravasation. Secondary outcomes included Foley catheter reinsertion, CVF recurrence, and 30- and 90-day postoperative complications.

Results

A total of 65 patients were studied. Of these, 56 (86.2%) underwent CVF disconnection without bladder repair, seven (10.8%) required single-layer repair, and two (3.1%) required two-layer repair. All post-repair intraoperative leak tests were negative. 59 patients (90.8%) had early Foley removal on postoperative days two or three. All postoperative cystograms were negative for contrast extravasation. There were no Foley reinsertions or CVF recurrences. Four patients (6.2%) were readmitted to the hospital within 30 days, and seven (10.8%) within 90 days of surgery.

Conclusions

Our study demonstrates the safety of early Foley removal, with no bladder leaks, Foley reinsertions, or CVF recurrences observed. Early Foley removal should be considered for adoption as routine clinical practice following closure of CVF due to diverticulitis.

Table 1. Postoperative Bladder Management and Hospital Course Among Patients with Diverticular CVF who Underwent Early Foley Catheter Removal (N = 65)

N (%) or median (IQR)	Summary
Total hospital length of stay, <i>days</i>	4 (3-5)
Postoperative length of stay, <i>days</i>	4 (3-5)
Postoperative antibiotics administered	11 (16.9%)
Postoperative antibiotic duration, <i>days</i>	4 (4-5)
Duration to first postoperative cystogram, <i>days</i>	3 (3-3)
Bladder contrast leakage on postoperative cystogram	0
First postoperative cystogram result	
No evidence of leak	63 (96.9%)
Unable to determine	2 (3.1%)
Second postoperative cystogram performed	
Yes	2 (3.1%)
Duration to second postoperative cystogram, <i>days</i>	4 (4-4)
Second postoperative cystogram result	
No evidence of leak	2 (100%)
Postoperative Foley Catheter duration, <i>days</i>	3 (3-3)
Foley Catheter removal on postoperative day 2 or 3	59 (90.8%)
Foley Catheter removal on postoperative day 4	5 (7.7%)
Foley Catheter removal on postoperative day 5	1 (1.5%)
Foley Catheter reinsertion during index hospitalization	0
Postoperative complications during index hospitalization:	
AKI	1 (1.5%)
Bowel obstruction	1 (1.5%)
Dehydration (from high ileostomy output)	4 (6.2%)
Ileus requiring nasogastric tube	7 (10.8%)
Other	7 (10.8%)
Surgical site infection	1 (1.5%)
Mortality	0
Reoperation	0
Urinary sepsis	0
Urinary Tract Infection (UTI) requiring pharmacologic treatment	2 (3.1%)

Table 2. Thirty- and 90-day Outcomes of Patients with Diverticular CVF who Underwent Early Foley Catheter Removal (N = 65)

N (%)	30-day	90-day
Foley Catheter reinsertion following discharge	0	0
Colovesical fistula recurrence	0	0
Total number of patients readmitted	4 (6.2%)	7 (10.8%)
Postoperative complications:		
Anastomotic leak	2 (3.1%)	2 (3.1%)
Bowel obstruction	1 (1.5%)	1 (1.5%)
Dehydration (from high ileostomy output)	2 (3.1%)	3 (4.6%)
Ileus requiring nasogastric tube	7 (10.8%)	7 (10.8%)
Intraabdominal abscess	2 (3.1%)	3 (4.6%)
Mortality	0	0
Other	17 (26.2%)	19 (29.2%)
Pelvic abscess	2 (3.1%)	2 (3.1%)
Reoperation	1 (1.5%)	1 (1.5%)
Surgical site infection (SSI)	3 (4.6%)	3 (4.6%)
Urinary sepsis	0	0
UTI requiring pharmacologic treatment	5 (7.7%)	6 (9.2%)

Reevaluating Obesity and Risk of Anastomotic Leak after Elective Colectomy for Diverticulitis

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Objectives

- 1) To assess whether increasing BMI was associated with risk of anastomotic leak in patients who underwent sigmoid colectomy with anastomosis and without proximal diversion.
- 2) To guide surgeons in decision making on fecal diversion in obese patients.

Purpose/Background

Obesity (BMI ≥ 30 kg/m²) has been identified as an independent risk factor for anastomotic leak after left sided colon resection. However, obesity is a heterogeneous condition characterized by varying types and degrees of adiposity and metabolic health, so this simple categorization may not fully capture differences in surgical risk. The incremental effect of increasing BMI on anastomotic leak has not been well quantified, particularly in patients who do not receive fecal diversion up front. This study aimed to assess whether higher BMI was associated with greater risk of anastomotic leak after elective colectomy for diverticulitis.

Methods/Interventions

This 2-year retrospective cohort study utilized the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) Procedure Targeted Colectomy database from 2022-2023. Patients ≥ 18 who underwent elective colectomy with primary anastomosis without proximal diversion for diverticulitis were included. Patients were categorized by weight per World Health Organization definitions: overweight (25–29.9 kg/m²), class I obesity (30–34.9), class II obesity (35–39.9), and class III obesity (≥ 40). The primary outcome was any anastomotic leak; secondary outcomes included medical and surgical complications. Multivariable analyses were performed for the primary and secondary outcomes to adjust for confounders such as age, race/ethnicity, comorbidities and other relevant clinical factors.

Results/Outcomes

Of 8687 patients (median age 59, 56% female, 91% white, 13% Hispanic) who underwent elective surgery for diverticulitis, 1817 (20%) of patients were non-obese, 2955 (34%) were overweight, 2195 (25%) were class I obese, 1128 (13%) were class II obese and 705 (8%) were class III obese. Obese patients were significantly younger overall (50 years for class III obesity vs. 65 years for non-obese, $p < 0.001$). A greater number of the obese patients had diabetes, chronic obstructive pulmonary disease (COPD), and hypertension ($p < 0.001$ for all). The operative approach did not significantly differ based on BMI ($p = 0.124$). Forty three percent of the cohort underwent robotic

surgery (n=3660), 39% underwent hand assisted laparoscopic surgery (n=3323), 16% underwent laparoscopic surgery (n=1406), and 2% (n=208) underwent open surgery. The rate of anastomotic leak overall was 2.1% (n=37) and there were no significant differences by BMI category (0.562) (table 1). Operative time increased as BMI increased, though the differences were small (p<0.001). A significantly greater number of obese patients had a superficial surgical site infection (P<0.001). After adjusting for clinically significant variables, higher class of obesity did not increase incidence of anastomotic leak (Figure 1).

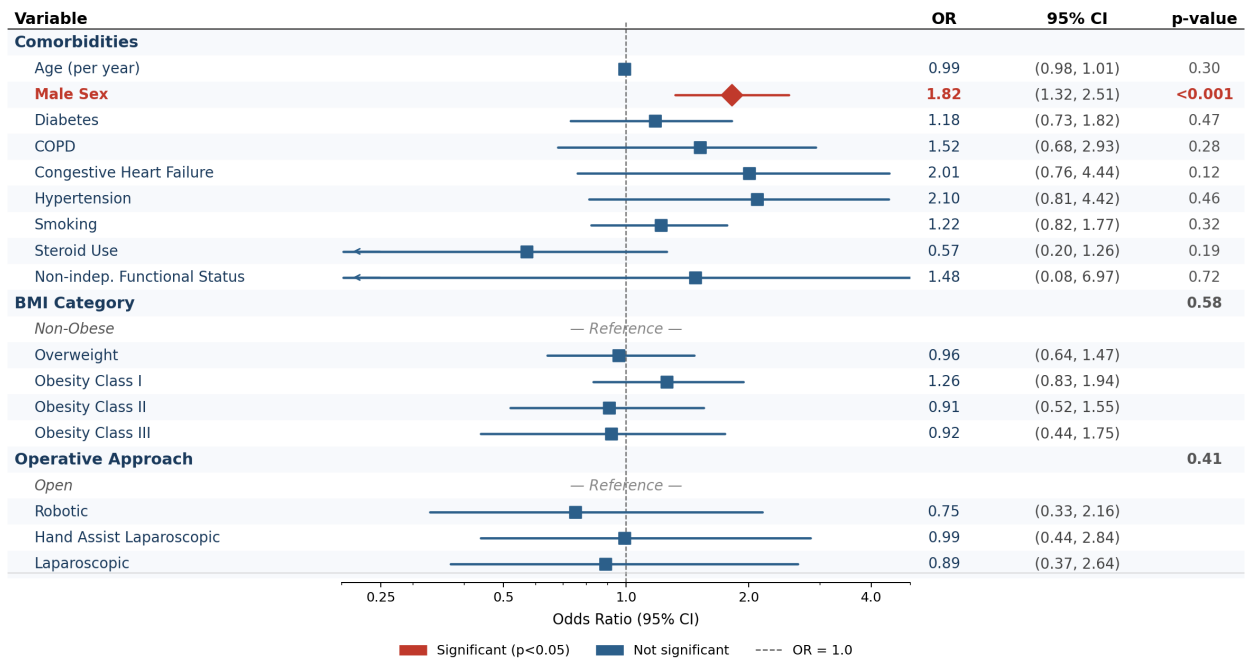
Conclusion/Discussion

In this national sample of diverticulitis patients who underwent elective colectomy with primary anastomosis, the anastomotic leak rate was low overall and the risk of anastomotic leak did not change as BMI increased. These findings from recent practice indicate that primary anastomosis without diversion may be a safe option in appropriately selected high BMI patients. This information can be useful to clinicians in planning operative approach and counseling patients.

Table 1. Primary and Secondary Outcomes by BMI Category

	Non-Obese (n=1817)	Overweight (N=2955)	Obesity Class I (N=2195)	Obesity Class II (N=1128)	Obesity Class III (N=592)	Total (N=8687)	P- value
Anastomotic Leak	37 (2.1%)	58 (2.0%)	56 (2.6%)	21 (1.9%)	11 (1.9%)	183 (2.2%)	0.562
Unplanned Conversion to Open	28 (1.5%)	55 (1.9%)	43 (2.0%)	27 (2.4%)	12 (2.0%)	165 (1.9%)	0.584
Reoperation	53 (2.9%)	81 (2.7%)	72 (3.3%)	29 (2.6%)	16 (2.7%)	251 (2.9%)	0.752
Operative time, median, (IQR), minutes	186 (141,241)	193 (145, 251)	200 (153,263)	207 (154, 266)	222 (170, 291)	196 (149, 257)	< 0.001
Length of Stay, mean (SD), days	3.9 (3.2)	3.6 (3.0)	3.7 (3.1)	3.7 (2.8)	3.9 (2.8)	3.7 (3.0)	< 0.001
30-day Readmission	95 (5.2%)	148 (5.0%)	126 (5.7%)	64 (5.7%)	43 (7.3%)	476 (5.5%)	0.240
Postoperative Ileus	75 (4.1%)	120 (4.1%)	92 (4.2%)	43 (3.8%)	20 (3.4%)	350 (4.0%)	0.029
Surgical Site Infection	23 (1.3%)	55 (1.9%)	51 (2.3%)	42 (3.7%)	32 (5.4%)	203 (2.3%)	<0.001
Pneumonia	1812 (99.7%)	2938 (99.4%)	2184 (99.5%)	1120 (99.3%)	588 (99.3%)	8642 (99.5%)	0.499
Post-operative Blood Transfusion	50 (2.8%)	42 (1.4%)	26 (1.2%)	14 (1.2%)	10 (1.7%)	142 (1.6%)	< 0.001
Thromboembolism	13 (0.7%)	25 (0.8%)	21 (1.0%)	7 (0.6%)	8 (1.4%)	74 (0.9%)	0.533

Figure 1. Predictors of Anastomotic Leak



Time-Dependent Risk and Treatment Patterns of Anastomotic Leaks Following Elective Colectomy: A Retrospective Study

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Objective

- 1) To estimate daily anastomotic leak (AL) risk variability and assess the correlation between occurrence timing and outcomes.
- 2) To evaluate AL treatment patterns, failure modalities by leak timing, and differences in length of stay across timing-of-occurrence groups.

Background Data

Although AL risk has been well reported, dynamic assessments of the evolving risk and correlations between timing and outcomes have not been studied.

Methods

We conducted a retrospective analysis of patients who underwent elective colectomy without a stoma between 2017 and 2024 and were managed under an expedited recovery protocol at a single academic center. Conditional overall survival estimated the probability of remaining leak-free over specified intervals. AL treatments were grouped into four categories, and patients were assigned to groups per intention to treat: (1) antibiotics alone, (2) drain, (3) surgical treatment, and (4) minimally invasive treatment.

Results

Of the 1,508 patients, 76 (5.0%) developed AL, of whom 40 (2.6%) were diagnosed before discharge (median postoperative day: 4; IQR: 2.0-5.0). Patients who remained leak-free on day 1 had 97% (95% CI: 0.97–0.98) likelihood of remaining leak-free for days 1–5, 99% (95% CI: 0.95–0.97) for days 5–10, and 99% (95% CI: 0.94–0.96) for days 10–30. Pre-discharge leaks more often required surgery (30.3% vs. 5.3%, $p<0.01$), ostomy creation (55% vs. 19%, $p<0.01$), and longer hospital stay (16 vs. 10 days, $p=0.03$). Post-discharge leaks were more commonly managed using antibiotics alone (30.3% vs. 6.6%, $p<0.01$).

Conclusions

Surgeons should reassure patients that the likelihood of AL declines with each passing day after surgery, reaching 1% after day 10. Delayed leaks are typically less severe and amenable to minimally invasive management and shorter hospital stays.

“The Weekend Effect” in Anastomotic Leaks: How After-Hours Diagnosis is Associated with Intervention Timing and Clinical Outcomes

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Objectives

- 1) Describe the association between timing of anastomotic leak diagnosis and differences in intervention.
- 2) Evaluate how timing of anastomotic leak diagnosis influences clinical outcomes and resource utilization.

Introduction

Anastomotic leak is a common and challenging complication following colectomies, nevertheless when its treatment requires multidisciplinary coordination with other inpatient services. We evaluated whether after hours diagnosis influences time to intervention and outcomes.

Methods

We conducted a retrospective study of patients undergoing elective colectomy with primary anastomosis without diversion between 2017–2024 at a single academic center. Patients were grouped by CT-confirmed diagnosis during the weekend or afterhours (17:00–7:00, “afterhours”) versus traditional working hours. Overlap weighting was used to balance covariates. The primary objective was to assess the association between afterhours diagnosis and time to first intervention, including prolonged intervention (>24 hours); secondary outcomes were length of stay (LOS) and treatment escalation from initially planned treatment. Weighted regression models were applied.

Results

Among 74 patients, 43 were diagnosed after hours. The afterhours group were less often inpatients (51% vs 67%, SMD 0.33), had a longer time to first intervention (weighted-mean 25 vs 13 hours; SMD 0.47), more often necessitated treatment escalation (39% vs 28%; SMD 0.22), and had longer LOS (median 11 vs 10 days; SMD 0.11). After adjustment, afterhours diagnosis was associated with longer time to intervention (aRR 1.011/hour; 95% CI 1.004–1.019), less likely to be inpatient (aRR 0.34, 95%CI 0.15–0.80), and increased likelihood of operative management as the first intervention (aRR 3.50, 95% CI 1.73–7.10). Prolonged time to intervention over 24 hours was independently associated with increased after-hour presentation (aRR 4.35, 95%CI 1.04–18.23).

Discussion

Elective colectomy patients diagnosed overnight or on the weekend with an anastomotic leak had longer time to intervention and had advanced treatment intensity. These findings, in combination with the longer length of stay, highlight the potential system level impacts of anastomotic leak treatments that can be a source for future quality improvement.

Fecal Microbiota Transplantation (FMT) for Recurrent Uncomplicated Diverticulitis: Results of a Pilot Study

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Objectives

- 1) To evaluate the safety and preliminary clinical efficacy of fecal microbiota transplantation (FMT) in reducing recurrent flares of uncomplicated diverticulitis in patients otherwise considered surgical candidates.
- 2) To characterize longitudinal microbiome changes following FMT and assess donor microbial engraftment and stability over 12 months using phylogenetic dissimilarity metrics.

Purpose/Background

Uncomplicated diverticular disease is increasingly prevalent in the adult U.S. population. Standard treatment of uncomplicated diverticulitis includes antibiotic therapy and surgical resection for recurrent disease. Fecal microbiota transplantation (FMT) has been employed as part of the treatment algorithm for *Clostridium difficile* colitis. This pilot study aims to assess the safety and efficacy of FMT in treating recurrent, uncomplicated diverticulitis as an alternative to surgery. We also aim to assess changes in the microbiota of patients following FMT.

Methods/Interventions

We performed a prospective pilot study evaluating the use of FMT in patients with recurrent, uncomplicated diverticulitis. Eligible subjects had more than one prior episode of uncomplicated colonic diverticulitis and were considered candidates for surgical resection. Patients with active acute diverticulitis flares and complicated disease were excluded. Enrolled subjects underwent FMT via colonoscopy utilizing transplant donors from the University of Minnesota's Microbiota Therapeutics Program. Recipients were followed for 12 months with follow-up visits at 1, 3, 6, and 12 months post-FMT. Baseline donor and recipient stool samples were collected. Recipient stool samples were collected weekly for the first 4 weeks, then at every follow-up visit. Clinical endpoints captured at each follow-up visit included: number of diverticular flares, antibiotic courses, ER visits, or hospitalizations since FMT. Per sample species composition was determined using Metaphlan3. Sample dissimilarity was then calculated using the unweighted unfrac metric as implemented in the QIIME2 software package. Within-sample dissimilarities were normalized to the baseline-donor sample dissimilarity, which was set as 100. This trial is registered at ClinicalTrials.gov (NCT05373784).

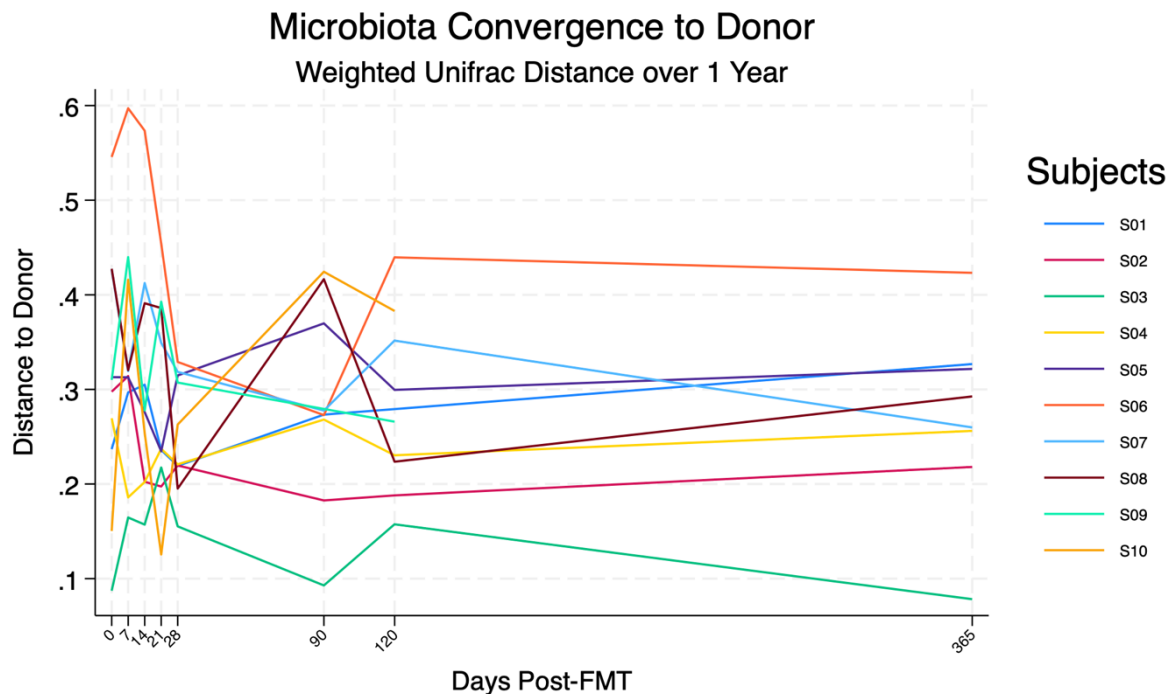
Results/Outcomes

Ten subjects were enrolled and completed the study. The cohort was Caucasian (n=10, 100%), 50% female, with a mean age of 57 years (SD 11.4). There was a significant decrease in the average number of lifetime CT-confirmed diverticulitis flares following FMT (3.9 vs. 0.2, $p < 0.0001$). When compared to average CT-confirmed diverticulitis flares one year before FMT, there was still a significant decrease (1 vs. 0.2, $p\text{-value} = 0.005$). To date, 2 subjects (20%) had a recurrent diverticular flare confirmed on CT scan requiring antibiotics: one at 3 months and one at 12 months. The most common adverse events across the study period were abdominal discomfort and diarrhea, reported in 80% of the sample. There have been no hospital admissions, serious adverse events, or emergent surgical procedures due to diverticulitis to date. One patient who did have a recurrence at 12 months elected to undergo elective sigmoid colectomy one month following completion of the study with no further complications. Recipient microbiome samples all show a dramatic shift away from baseline at 1 week following FMT, which persists throughout their follow-up analyses.

Conclusions/Discussion

Our findings support FMT as a safe alternative approach for treating patients with recurrent, uncomplicated diverticulitis. Donor microbiomes successfully integrated into recipients and remained stable for over one year. Further multi-institutional, randomized studies are warranted to evaluate the efficacy of this novel, non-operative therapeutic strategy.

Figure 1. Weighted Unifrac Distance of Microbiota Convergence to Donor Samples Over 1 Year Follow up



S = subject ID #

Figure 2: Diverticulitis Recurrences Compared to Weighted Unifrac Donor Samples Over 1 Year Follow up

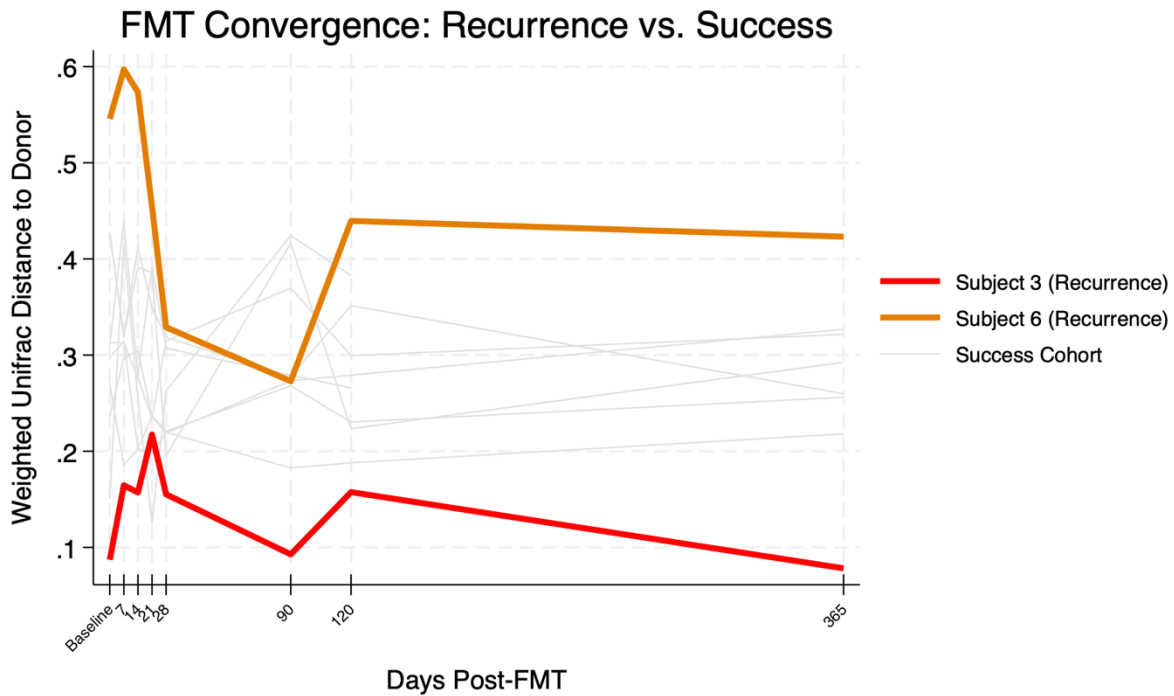


Figure 3: Unpaired t-test showing significance of pre- and post- FMT diverticulitis recurrences

Unpaired t test results

P value and statistical significance:

The two-tailed P value equals 0.0050

By conventional criteria, this difference is considered to be very statistically significant.

Confidence interval:

The mean of 1yr pre-FMT minus Post-FMT equals 0.8000

95% confidence interval of this difference: From 0.2746 to 1.3254

Intermediate values used in calculations:

t = 3.1992

df = 18

standard error of difference = 0.250

Review your data:

Group	1yr pre-FMT	Post-FMT
Mean	1.0000	0.2000
SD	0.6700	0.4200
SEM	0.2119	0.1328
N	10	10

Surgeon Perspectives on Responsibility for Acute Lower Gastrointestinal Surgical Conditions: A Modified Delphi Study

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Objectives

- 1) Understand the consensus framework for who should manage acute lower GI surgical conditions between ACS and CRS.
- 2) Understand why the expert panel felt that each specialty was best suited to manage certain conditions.

Background

In a prior regional survey study, acute care (ACS) and colorectal (CRS) surgeons disagreed on which specialty should manage several acute lower gastrointestinal (GI) surgical conditions that both services could be expected to manage. No consensus guidelines exist regarding which service is best suited to manage specific conditions, and a minority of surgeons work at institutions with such guidelines. Using a modified Delphi methodology, we sought expert consensus surrounding which specialty is best suited to treat common lower GI surgical conditions.

Methods

A diverse, representative group of expert surgeons (7 ACS, 9 CRS) participated in two rounds of a modified Delphi expert panel. Round 1 consisted of a survey asking who should manage 20 lower GI surgical conditions (ACS, CRS, or either). A consensus threshold was determined a-priori to be 70%. Conditions without consensus in round 1 were discussed at round 2 in a discussion-based Delphi panel via video-conference. Content analysis was performed on discussion transcripts using inductive coding. Codes included: practice models (parent code), surgeon availability (child code), longitudinal care (child code), clinical status, surgeon training (parent code), anatomic location (child code), and surgical approach (child code).

Results

Of 20 conditions, our Delphi panel reached consensus on who should manage 10 conditions after round 1. Following cross-specialty discussion in round 2, the panel identified nuanced aspects of patient presentation that determined the most appropriate service for the remaining 10 conditions (Table 1). Content analysis revealed themes that were mentioned with frequencies as follows: practice models (x18), surgeon availability (x29), longitudinal care (x17), clinical status (x28), surgeon training (x52), anatomic location (x27), and surgical approach(x9).

Conclusions

This collaborative ACS and CRS modified Delphi panel achieved consensus on which specialty should manage 10 of 20 surgical conditions, with service allocation for the remaining conditions based on specific aspects of patient presentation. If used prospectively, these results may help guide resource allocation, streamline patient care, minimize interpersonal tension, and improve outcomes.

Table 1. The 20 common acute lower gastrointestinal conditions examined by our Delphi panel. Conditions with “nuanced consensus” after the first round were examined at qualitative discussion-based Delphi rounds.

	<i>Consensus</i>		<i>Nuanced consensus</i>
	ACS to manage	CRS to manage	
Lower GI bleed	X		
<i>C.difficile</i> toxic megacolon	X		
Colon cancer without obstruction or perforation		X	
Obstructing colon cancer			X
Obstructing rectal cancer		X	
Perianal Crohn’s disease with abscess		X	
Crohn’s disease with intestinal or colonic obstruction or perforation		X	
Ulcerative colitis with toxic megacolon		X	
Diverticulitis with colovesical or colovaginal fistula		X	
Diverticular stricture			X
Rectal prolapse		X	
Diverticulitis with pericolonic or pelvic abscess			X
Large bowel obstruction (unknown etiology)			X
Perforation after colonoscopy by GI			X
Cecal or sigmoid volvulus			X
Perforated colon cancer			X
Recurrent uncomplicated diverticulitis			X
Small bowel obstruction with stoma present			X
Small bowel obstruction with prior colectomy	X		
Stoma prolapse			X

When the Going Gets Tough: Large Bowel Obstruction Associated with Diverticulitis

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Objectives

- 1) To characterize the clinical presentation, diagnostic evaluation, and operative management of patients with diverticulitis-associated large bowel obstruction (DLBO) at a single institution.
- 2) To assess post-operative outcomes, including quality of life and bowel function, in patients treated for DLBO using validated DV-QOL and LARS questionnaires.

Background

Diverticulitis-associated large bowel obstruction (DLBO) is a rare presentation of diverticular disease. It may be due to a stricture causing mechanical blockage or functional obstruction without luminal obstruction. Existing literature on DLBO is scarce; most studies focus on radiographic or diagnostic features rather than clinical presentation, management, or patient outcomes.

Methods

A single institution, retrospective case series, and survey of patients with CT evidence of DLBO was conducted from 2019 - 2025. Patients were identified via review of departmental operative logs. Following chart review, patients were contacted via telephone for assessment of current quality of life using the diverticulitis quality of life (DV-QOL) and low anterior resection syndrome (LARS) score questionnaires.

Results

23 patients with DLBO were identified, 48% were male, the mean age at presentation was 64 (40–87) years. 78% of patients with DLBO had documented prior treatment for diverticulitis in the hospital record, with a median of 3 prior episodes per patient. Prior to admission with DLBO, patients had a median of 4 days of acute symptoms and 42 days of chronic symptoms. Of the 18 patients who had undergone a previous colonoscopy, the median time from colonoscopy to admission was 20.5 months. Median follow-up time was 8 months (IQR 4 – 17) with one patient deceased by the time of follow-up.

On presentation, 100% of patients had CT evidence of LBO. 10(43%) patients had a water-soluble enema (WSE), with 2 patients demonstrating obstruction on this study. 9(39%) patients had a flexible sigmoidoscopy, with only 2 patients found to be endoscopically obstructed. Of the 6 patients with both WSE and endoscopy, no patients were obstructed on both studies. 10(43%) patients were taken to surgery following CT scan without WSE or flexible sigmoidoscopy.

All patients in the study population required operative intervention. 21(91%) patients underwent fecal diversion. 11(48%) underwent diverting loop colostomy, 7(30%) Hartmann's resection, 2(9%) sigmoid resection with anastomosis and fecal diversion, 2(9%) sigmoid resection with anastomosis without diversion, 1(4%) patient underwent total abdominal colectomy and end ileostomy. 12(57%) patients with fecal diversion had their stoma reversed during the follow-up period, with a median time to stoma reversal of 5.7 months. The median number of operative interventions per patient was 2(range 1-4). Of the 18 patients with eventual sigmoid resection, pathology demonstrated diverticulitis.

15(68%) patients participated in the telephone questionnaire. 80% of patients reported prior episodes of diverticulitis, with an average of 8.4 episodes reported. Median DV-QOL scores were 0.3, with 2 (13%) patients' scores exceeding 3.2, indicating clinically meaningful diverticulitis symptoms. Of the patients with restored intestinal continuity (n=9), the median LARS score was 2.

Conclusion

In our institution, the majority of patients with DLBO had prior admissions and treatment for diverticulitis. Before their acute presentation, patients reported a median of 42 days of subacute obstructive symptoms. All patients required operative intervention for DLBO, 91% of patients required fecal diversion. 57% of patients with a stoma had restoration of intestinal continuity. Overall, post-operatively, patients had low DV-QOL and LARS scores, indicating that most patients did not have long-lasting diverticulitis symptoms or lower GI functional changes.

SATURDAY

Session 3

Malignant

ABSTRACTS

Change in 30-day Rates of VTE in Major Colorectal Surgery after Publication of ASCRS 2018 Clinical Practice Guidelines

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Objectives

- 1) To investigate whether the 2018 ASCRS VTE guidelines changed the 30-day rate of DVT and PE in major colorectal surgeries.
- 2) To identify associations between comorbidities and development of post-operative VTE after major colorectal surgeries.

Background

Venous thromboembolism (VTE), encompassing deep venous thrombosis (DVT) and pulmonary embolism (PE), is a common yet often preventable morbidity after any major surgery. Patients undergoing colorectal surgery are at increased risk, even when receiving VTE chemoprophylaxis, due to factors such as intra-operative patient positioning and preexisting conditions such as malignancy and inflammatory bowel disease. In 2018, the American Society of Colon and Rectal Surgeons (ASCRS) Clinical Practice Guidelines Committee outlined recommendations for preventing VTE in colorectal surgery. However, few studies have evaluated its impact on clinical outcomes. Our study investigated the 30-day rate (30DR) of DVT and PE in major colorectal surgeries before and after publication of the 2018 ASCRS VTE guidelines. We hypothesized that its publication led to a decreased 30DR of DVT and PE.

Methods

Patients aged 18 years or older with an ICD-9 or ICD-10 code for cases performed by general surgeons with CPT codes for major open and minimally invasive cases involving the colon and rectum, excluding anorectal cases, were identified in the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) database from 2013 to 2017 (pre-2018) and 2019 to 2023 (post-2018) excluding the transition year 2018. Frequencies and values were compared using the Chi-squared test. A p-value ≤ 0.05 was considered statistically significant.

Results

The population of interest included 316,369 patients pre-2018 and 379,654 post-2018 who underwent major colorectal surgeries. 30DR of DVT in all colon cases decreased slightly from 1.46% to 1.39% (p=0.009). The decrease was most pronounced in colon cases involving malignancy, where it decreased from 1.26% to 1.12% (p=0.009). In terms of PE, the 30DR for all colon cases did not differ significantly (0.67% vs. 0.69%, p=0.326).

However, 30DR of PE in all colon cases increased from 1.22% to 1.37% ($p=0.004$) and, specifically, in colon cancer cases from 0.62% to 0.71% ($p<0.001$). In contrast, 30DR of PE in benign colon cases decreased from 0.77% to 0.66% ($p=0.001$). Looking at demographics, more patients post-2018, both in the total population and in those who developed a VTE, were designated American Society of Anesthesiologists (ASA) III/IV and scored higher on the Modified Frailty Index (MFI-5). The aforementioned trend suggests that despite an overall decline in patient health, VTE rates did not rise. Moreover, even with the increased burden of age and higher rate of severe COPD, CHF, and disseminated cancer, a 22% relative reduction in 30-day mortality following a major thrombotic event was observed.

Conclusion

The 30DR of DVT and PE before and after publication of the 2018 ASCRS VTE guidelines remained comparably low. While rates of VTE have statistically decreased over the years, the clinical magnitude is small, suggesting that a floor effect in VTE prevention may have been achieved. Furthermore, a 22% relative reduction in 30-day mortality following a major thrombotic event suggests a significant improvement in our failure-to-rescue surveillance and treatment protocols in catching and managing VTEs early during the post-operative period. True compliance with the guidelines remains unknown, however, and a prospective study to better ascertain the prevalence of their adoption is warranted.

From Recommendation to Reality: Endoscopic Surveillance Guidelines and Onset of Colorectal Cancer

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Objectives

- 1) To evaluate adherence to guideline-recommended surveillance intervals among patients subsequently diagnosed with colorectal cancer who had a prior negative screening or surveillance examination.
- 2) To characterize the operative management and pathologic outcomes at the time of colorectal cancer diagnosis in relation to prior compliance with surveillance recommendations.

Introduction

Colorectal cancer is the third leading cause of cancer-related mortality among both males and females in the U.S. Currently, well-established guidelines exist for endoscopic surveillance, specifically for the prevention and early detection of colorectal cancer. Our study aims to assess the adherence to and efficacy of recommended surveillance intervals for patients who developed colorectal cancer.

Methods

We conducted a retrospective chart review of all consecutive patients who were diagnosed with a colorectal malignancy and underwent resection at a tertiary academic medical center between October 2017 and October 2025. Patients with hereditary cancer syndromes, inflammatory bowel disease (IBD), or missing surveillance data were excluded. We determined the recommended follow-up intervals based on the prior colonoscopy or non-invasive screening test and tracked patient compliance. Non-compliant patients were defined as those who presented after their recommended surveillance interval, while failed interval recommendation patients were those who presented before their recommended surveillance time. The primary outcome was adherence to recommended surveillance intervals at the time of colorectal cancer diagnosis. Secondary outcomes included the interval between prior screening and diagnosis, operative details, and pathologic stage at presentation.

Results

We reviewed 941 patients who underwent resection for colorectal malignancy at our institution from 2017 to 2025, of whom 182 patients (19.4%) met our inclusion criteria. Patients had a mean age of 72 at the time of diagnosis, 56% were women, and 90.7% were

white. Surveillance colonoscopy interval was recommended at 5 years (36.8%), 10 years (24.7%), 3 years (18.1%), 1 year (11%), and within 1 year (7.1%). Only 24.7% of all patients adhered to their recommended surveillance timeline. 26.9% of the cohort failed their recommended interval and presented earlier by a median of 27.8 months (IQR 15.01-44.54). Non-compliant patients (48.4%) presented after their recommended timeline by a median of 39.4 months (IQR 19.73-70.17). The most common location of cancer was the ascending colon, and the most common procedure performed was a right hemicolectomy (59.9%). Overall, 32.4% of patients had pathologic stage III disease and 7.1% had stage IV disease. There was no difference in overall pathologic stage between compliant, failed and non-compliant patients ($p = 0.292$).

Conclusion

Our findings demonstrate that a significant number of patients who develop colorectal cancer lack documented screening or surveillance data to assess adherence to guidelines. Among those with prior screening, compliance with recommended surveillance intervals was low and was not associated with differences in pathologic stage at diagnosis. Together, these findings highlight the need to improve patient participation in screening and compliance with surveillance recommendations, which may inform future efforts to optimize existing surveillance protocols.

Figure 1. Plot of patient compliance across recommended surveillance timelines

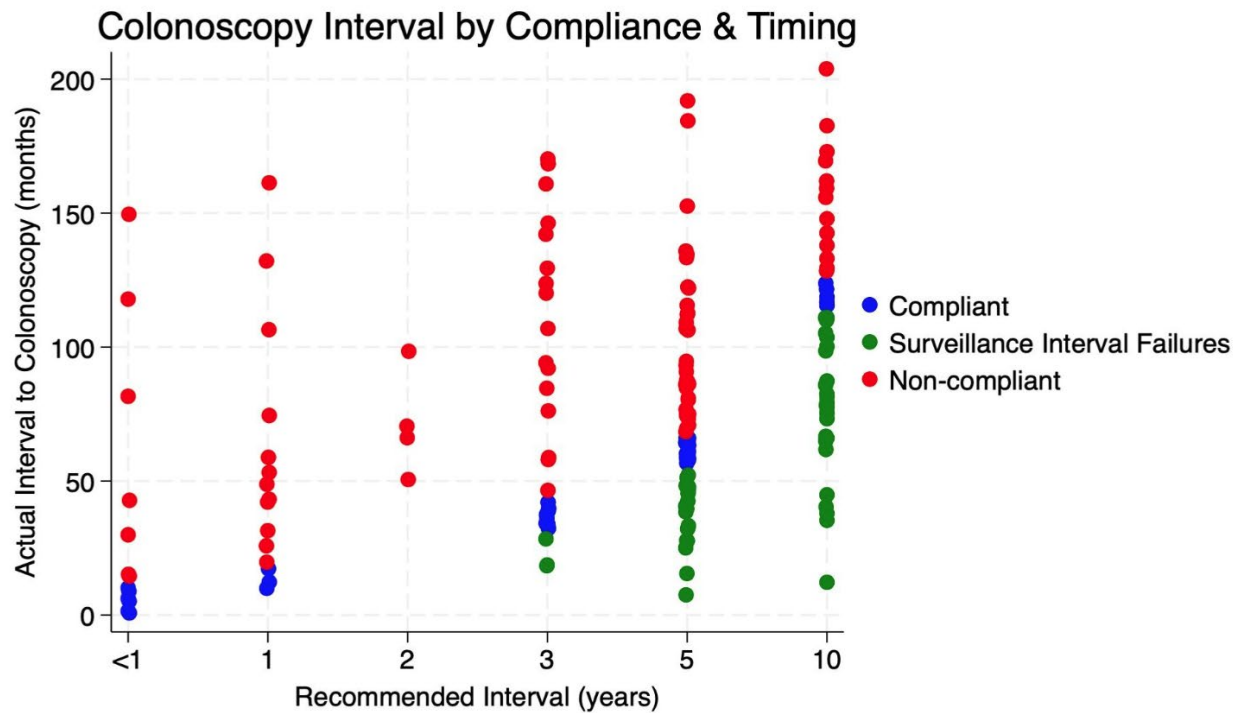


Table 1. Overview of Treatment Course and Pathologic Outcomes

N (%) or median (IQR)	Compliant	Failed	Non-Compliant	Total	p-value
Surgical approach					0.882
Laparoscopic	34 (75.6%)	40 (81.6%)	73 (83.0%)	147 (80.8%)	
Robotic	6 (13.3%)	4 (8.2%)	8 (9.1%)	18 (9.9%)	
Open	4 (8.9%)	4 (8.2%)	4 (4.5%)	12 (6.6%)	
Laparoscopic converted to open	1 (2.2%)	1 (2.0%)	3 (3.4%)	5 (2.7%)	
Type of procedure					0.235
Ileocectomy	1 (2.2%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	
Right hemicolectomy	29 (64.4%)	30 (61.2%)	50 (56.8%)	109 (59.9%)	
Transverse colectomy	0 (0.0%)	0 (0.0%)	4 (4.5%)	4 (2.2%)	
Left hemicolectomy	3 (6.7%)	7 (14.3%)	11 (12.5%)	21 (11.5%)	
Sigmoid colectomy	5 (11.1%)	0 (0.0%)	5 (5.7%)	10 (5.5%)	
LAR (Low Anterior Resection)	4 (8.9%)	7 (14.3%)	13 (14.8%)	24 (13.2%)	
APR (Abdominoperineal Resection)	3 (6.7%)	5 (10.2%)	4 (4.5%)	12 (6.6%)	
Total abdominal colectomy	0 (0.0%)	0 (0.0%)	1 (1.1%)	1 (0.5%)	
Pathologic T stage					0.426
T0	2 (4.4%)	3 (6.2%)	4 (4.5%)	9 (5.0%)	
T1	5 (11.1%)	5 (10.4%)	10 (11.4%)	20 (11.0%)	
T2	10 (22.2%)	6 (12.5%)	12 (13.6%)	28 (15.5%)	
T3	25 (55.6%)	22 (45.8%)	50 (56.8%)	97 (53.6%)	
T4	3 (6.7%)	12 (25.0%)	12 (13.6%)	27 (14.9%)	
Pathologic N stage					0.570
N0	31 (68.9%)	31 (64.6%)	51 (58.0%)	113 (62.4%)	
N1	7 (15.6%)	10 (20.8%)	25 (28.4%)	42 (23.2%)	
N2	7 (15.6%)	7 (14.6%)	12 (13.6%)	26 (14.4%)	
M stage					0.007
Unknown	0 (0.0%)	4 (8.2%)	1 (1.1%)	5 (2.7%)	
M0	45 (100.0%)	39 (79.6%)	80 (90.9%)	164 (90.1%)	
M1	0 (0.0%)	6 (12.2%)	7 (8.0%)	13 (7.1%)	
TNM stage					0.292
Stage 0	2 (4.4%)	3 (6.1%)	3 (3.4%)	8 (4.4%)	
Stage 1	14 (31.1%)	9 (18.4%)	17 (19.3%)	40 (22.0%)	
Stage 2A	14 (31.1%)	14 (28.6%)	24 (27.3%)	52 (28.6%)	
Stage 2B	1 (2.2%)	3 (6.1%)	4 (4.5%)	8 (4.4%)	
Stage 3A	1 (2.2%)	2 (4.1%)	5 (5.7%)	8 (4.4%)	
Stage 3B	12 (26.7%)	7 (14.3%)	26 (29.5%)	45 (24.7%)	
Stage 3C	1 (2.2%)	4 (8.2%)	1 (1.1%)	6 (3.3%)	
Stage 4	0 (0.0%)	6 (12.2%)	7 (8.0%)	13 (7.1%)	
Other	0 (0.0%)	1 (2.0%)	1 (1.1%)	2 (1.1%)	
Time from diagnosis to surgery, days	34 (22-75)	40 (25-95)	33 (21.5-71)	34.5 (22-75)	0.795
Neoadjuvant therapy	5 (11.1%)	11 (22.4%)	8 (9.1%)	24 (13.2%)	0.077
Adjuvant therapy	16 (35.6%)	17 (34.7%)	29 (33.0%)	62 (34.1%)	0.951

Changes in Characteristics of New Colorectal Cancer Diagnoses After Updated USPSTF Screening Recommendations

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Objectives

- 1) Audience members will understand the differences in disease characteristics in new colorectal cancer diagnoses among ages 45-49 since the changes to screening guidelines in 2021.
- 2) Audience members will participate in discussion regarding the potential significance of detection of earlier stage disease among patients aged 45-49.

Purpose/Background

In response to the rising incidence of colorectal cancer (CRC) diagnoses in younger populations, the USPSTF updated the recommendations for average-risk CRC screening to include adults aged 45 to 49 years starting in May 2021. Cases of early-onset CRC have previously been found to be more likely to be distal colon or rectal in origin, to have more advanced stage due to both local and distant disease, and to have high-risk pathologic features.

This study aimed to measure the differences in the demographics and disease characteristics of patients diagnosed with colorectal adenocarcinoma at age 45-49 before and after the USPSTF recommendation change. We hypothesize that with the addition of CRC screening, rather than detection solely based upon symptoms or family history, patients aged 45-49 diagnosed in 2022 would be diagnosed at earlier stages with less aggressive disease characteristics.

Methods

The NCDB 2022 was queried for all patients diagnosed with colorectal malignancy at ages 45 to 49 from 2018-2022. Patients diagnosed in 2021 were excluded as the screening recommendation was put in place midway through the year. Patients were categorized by diagnosis in 2018-2020 and in 2022. Variables included patient demographics, clinical stage at presentation, disease characteristics, and treatment methods. Continuous variables were compared using t-tests and categorical variables compared using chi-square tests.

Results

Within the designated time period, 22,738 patients aged 45 to 49 years old were diagnosed with a colorectal cancer. 16,359 patients were diagnosed from 2018-2020 – with an average of 5,453 diagnosed annually – compared to 6,379 patients diagnosed in 2022. The proportion of classic adenocarcinoma slightly decreased (89% to 87%) and neuroendocrine tumors increased (5% to 8%) ($p < 0.001$).

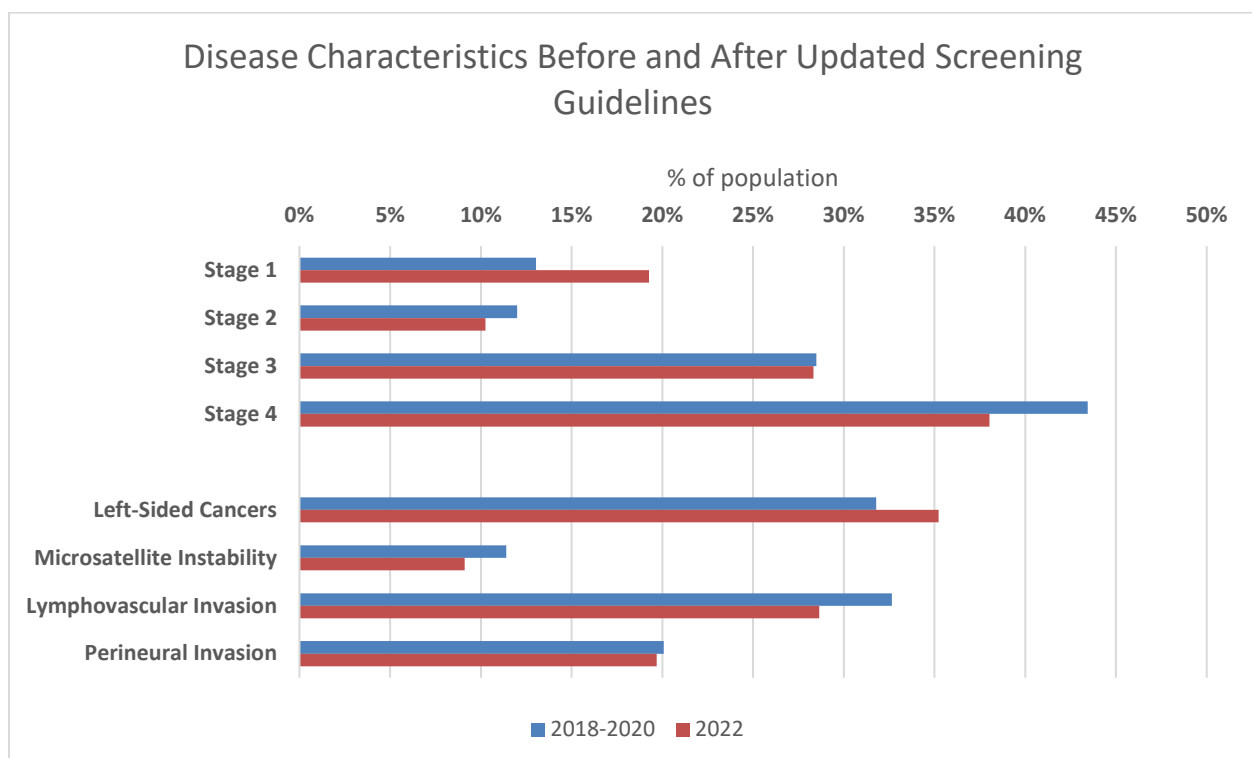
Among the 21,267 patients diagnosed with adenocarcinoma (including mucinous, signet ring cell, and medullary subtypes), the median age of diagnosis in both groups was 47, with a slightly higher proportion of patients aged 45-46 in 2022 as compared to the earlier cohort (35% v. 33%, $p=0.01$). The two groups were similar in terms of sex, race, ethnicity, and severity of comorbidities. The 2022 group was more likely to have private insurance (75% v. 72%, $p< 0.001$) and resided in areas with higher rate of high school degrees (24% vs. 21% in top quartile, $p=0.01$) and with higher median income (43% vs. 39% in top quartile, $p< 0.001$).

The 2022 group had a higher proportion of clinical stage 1 (19% v. 13%) and a lower proportion of clinical stage 4 disease at diagnosis (38% v. 43%, $p< 0.001$) (Figure 1). There was a higher proportion of left-sided cancers in 2022 compared to earlier years (35% v. 32%, $p< 0.001$). The 2022 group also had lower rates of microsatellite instability (11% v. 9%) and lymphovascular invasion (29% v. 33%). Tumor size, perineural invasion, and KRAS mutations were similar between the groups. The 2022 group had lower rates of treatment with (neo)adjuvant therapies (chemotherapy 64% v. 70%, radiotherapy 21% v. 25%, and immunotherapy 13% v. 14%, $p< 0.05$). Proportion of patients electing palliative care were similar.

Conclusion

This study supports our hypothesis that the implementation of earlier CRC screening guidelines resulted in patients aged 45-49 being diagnosed with earlier-stage, more treatable disease. Though it is known that earlier detection of CRC positively impacts survival, longer-term data will be needed to better understand the benefit of the updated screening guidelines.

Figure 1: Percent of disease characteristics in patients diagnosed with colorectal cancer in 2018-2020 and in 2022.



Malignant Gastrointestinal Neuroectodermal Tumor of the Rectum: A Rare Case Presentation

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Objectives

- 1) Recognize the need for escalation in indeterminate subepithelial rectal lesions, including repeat tissue sampling, advanced imaging, and timely molecular testing (e.g., EWSR1 rearrangement) to distinguish MGNET from benign peripheral nerve sheath tumors and other mimickers.
- 2) Understand the importance of definitive oncologic resection in suspected rectal sarcoma, as complete excision with negative margins remains the primary management strategy in the absence of standardized treatment guidelines.

Background

Malignant gastrointestinal neuroectodermal tumor (MGNET) is a rare, aggressive sarcoma first described in 2003 and characterized by distinctive pathologic features and EWSR1 gene rearrangements (most commonly EWSR1::ATF1 or EWSR1::CREB1 fusions) which create aberrant transcription factors that drive oncogenic gene activation. The literature on rectal MGNET specifically is extremely sparse. Most published series group colorectal cases together or focus on small intestinal and gastric primaries. A single anal canal case is the closest anatomic location to the rectum with detailed reporting.

Case Presentation

A 31-year-old woman with a history of childhood acute lymphoblastic leukemia presented with one week of lower abdominal pain, non-bloody diarrhea, nausea, and poor oral intake. Infectious studies were negative and tumor markers were normal. CT abdomen/pelvis demonstrated irregular anterior rectal wall thickening with concern for a neoplasm. Flexible sigmoidoscopy revealed a friable, ulcerated rectal lesion; initial biopsies showed S100- and SOX10-positive spindle cell proliferation without overt malignancy, and repeat sampling remained inconclusive. Pelvic MRI identified a 4 cm subepithelial mid-rectal mass abutting the peritoneum with small indeterminate mesorectal nodes, and endoscopic ultrasound confirmed a 4.0 × 2.0 cm vascular hypoechoic lesion at 10 cm from the anal verge; core biopsy favored a peripheral nerve sheath tumor. Given persistent concern for a mesenchymal malignancy, she underwent laparoscopic-assisted low anterior resection with diverting ileostomy. Intraoperatively, the tumor was firm and extended lower than anticipated, necessitating dissection to the pelvic floor to achieve adequate distal margins and complete total mesorectal excision. Final pathology revealed a 4.9 cm malignant gastrointestinal neuroectodermal tumor with EWSR1 rearrangement, negative margins (distal 2.0 cm), no lymphovascular invasion, and 0/16 lymph nodes involved (pT1N0). Her postoperative course was uncomplicated, surveillance imaging has shown no evidence of recurrence, and she remains disease-free following ileostomy reversal.

Discussion

Rectal MGNET is exceptionally rare, with the vast majority of reported cases arising in the small intestine or stomach and only sparse colorectal descriptions in the literature. To our knowledge, detailed reports of true rectal primaries remain exceedingly limited. This case is instructive because it highlights the diagnostic difficulty of subepithelial rectal masses with inconclusive biopsies, particularly when initial pathology suggests a benign peripheral nerve sheath process. MGNET frequently demonstrates S100 and SOX10 positivity and may mimic schwannoma or other neural crest-derived tumors, making molecular confirmation critical. The presence of an EWSR1 rearrangement ultimately established the diagnosis and distinguished this lesion from benign schwannoma and other mesenchymal neoplasms.

Published series describe MGNET as an aggressive sarcoma with significant risk of local recurrence and distant metastasis, even in cases without nodal involvement. Due to its rarity, there are no standardized treatment guidelines; however, most authors advocate complete surgical resection with negative margins as the primary therapy. The role of lymphadenectomy remains unclear, though nodal metastases have been reported. Data supporting chemotherapy or radiation are limited and largely extrapolated from soft tissue sarcoma experience.

Management considerations in this case included whether to pursue continued biopsy attempts versus definitive oncologic resection in the setting of persistent radiographic concern despite nondiagnostic pathology. Given the lesion's size, subepithelial nature, and potential for malignancy, formal oncologic resection with total mesorectal excision was favored over local excision. An alternative approach could have included transanal excision for definitive diagnosis; however, this may have risked incomplete resection if malignant, potentially compromising margins.

Conclusion

Rectal MGNET is an exceptionally rare and diagnostically challenging malignancy that may mimic benign peripheral nerve sheath tumors on initial biopsy. This case underscores the importance of maintaining suspicion for mesenchymal malignancy in atypical rectal masses, utilizing molecular diagnostics to establish the diagnosis, and pursuing complete oncologic resection to optimize outcomes.

Age Does Not Define Outcome: Comparable Oncologic Results in Early- and Late-Onset Locally Advanced Rectal Cancer After Total Neoadjuvant Therapy

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Objectives

- 1) To compare treatment response to total neoadjuvant therapy (TNT) (including complete/near-complete response rates and utilization of watch-and-wait) between early-onset (≤ 50) and late-onset (>50) patients with stage II–III locally advanced rectal cancer.
- 2) To compare oncologic outcomes after TNT including recurrence patterns (local vs distant), recurrence-free/disease-free survival, overall survival, and rates of salvage surgery after watch-and-wait regrowth between early- and late-onset locally advanced rectal cancer.

Purpose/Background

The incidence of early-onset rectal cancer (EORC, < 50 years) continues to rise, yet it remains unclear whether younger age at diagnosis confers a survival advantage in patients with locally advanced disease. This study compares overall survival (OS) and recurrence-free survival (RFS) between patients with early-onset and late-onset locally advanced rectal cancer (LARC) who underwent total neoadjuvant therapy (TNT) with curative intent.

Methods/Interventions

We performed a retrospective review of all the patients with LARC (Stage II and III) who underwent TNT between 2019 and 2024 at our institution. These patients were categorized based on age (≤ 50 vs >50). Patients with other treatment modalities than TNT were excluded. Demographics, tumor location, response to TNT and subsequent management were reviewed. Recurrence and need for salvage surgery were also recorded. Disease-free survival (DFS) and overall survival (OS) were estimated using Kaplan-Meier methodology with log rank testing.

Results/Outcomes

A total of 103 patients with locally advanced rectal cancer were included, of whom 35 (34%) were age ≤ 50 and 68 (66%) were age >50 at diagnosis. The mean ages were 43 and 64 years, respectively. Baseline demographic and clinical characteristics, including sex, BMI, and race distribution, were similar between the two groups. The majority of patients in both cohorts presented with stage III disease (94% vs. 87%, $p=0.32$), and tumor location within the rectum did not differ significantly. Response to total neoadjuvant therapy (TNT) was comparable between age groups, with similar rates of complete or near-complete response (46% vs. 49%, $p=0.34$). Watch-and-wait management was employed at similar frequencies (31% vs. 32%, $p=1.00$), with tumor

regrowth observed in 27% of younger and 9% of older patients managed nonoperatively ($p=0.33$). After a median follow-up of 37 months, recurrence occurred in 24% of younger and 19% of older patients ($p=0.61$). The distribution of local versus distant recurrence was not significantly different. No deaths occurred among patients ≤ 50 years, compared with 9% mortality in those >50 years ($p=0.17$). Median follow-up duration was similar between groups (37 vs. 36 months, $p=0.97$).

Conclusion/Discussion

Patients with early-onset (≤ 50 years) and late-onset locally advanced rectal cancer treated with total neoadjuvant therapy and when needed surgery demonstrated comparable treatment response, recurrence, and survival. Younger age did not confer a survival advantage, suggesting that outcomes in rectal cancer are more closely related to tumor biology and treatment response than to patient age at diagnosis.

MRI Accuracy in Rectal Cancer Staging: Not as Accurate as You Thought?

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Objectives

- 1) To evaluate the diagnostic accuracy of rectal protocol MRI in staging rectal cancer.
- 2) To assess the accuracy of MRI in monitoring treatment response following non operative management.

Introduction

Colorectal cancer is a leading cause of cancer-related death in the US, with early diagnoses increasing each year. Rectal protocol MRI is the standard imaging for local staging, assessing depth of invasion (T stage), nodal involvement (N stage), circumferential resection margin (CRM), and extramural venous invasion (EMVI).

Literature on MRI accuracy is mixed, with risk of over- or under-treatment if staging is incorrect. This study assessed MRI accuracy at the University of Vermont Medical Center (UVMC).

Methods

We conducted a retrospective chart review as a quality improvement initiative at UVMC. Rectal cancer patients were divided into three groups. Group 1 included those proceeding directly to surgery without neoadjuvant therapy; preoperative MRI was compared with surgical pathology which we considered the gold standard for T, N, EMVI, and CRM. Group 2 included patients who received total neoadjuvant therapy (TNT) followed by surgery; again, preoperative MRI was compared with the surgical pathology gold standard. Radiologic tumor response was defined as complete, near complete or incomplete. For analytic purposes group 2 was subdivided into 2a: complete clinical response (cCR) but still underwent surgery, and 2b: incomplete clinical response. MRI was compared with pathology for N, EMVI, and CRM. Group 3 included patients treated with neoadjuvant chemoradiation without surgery; treatment response was evaluated by comparing post-therapy flexible sigmoidoscopy with the closest MRI.

Results

This study included 121 cases from October 2015 to August 2025. In Group 1 (26 patients), MRI accuracy was: T stage 65% (17/26, 95% CI 46%-81%), N stage 62% (16/26, 95% CI 43%-76%), EMVI 50% (13/26, 95% CI 32-67%), and CRM 93% (24/26, 92% CI 76%-98%). In Group 2 (33 patients; 2a: 7, 2b: 26), accuracy in 2a was: N stage 100% (7/7, 95% CI 59%-100%), EMVI 86% (6/7, 95% CI 42%-100%), CRM 86% (6/7, 95% CI 42%-100%), and primary tumor response accuracy 71% (5/7, 95% CI 29%-96%). In 2b: N stage 65% (15/23, 95% CI 43%-84%), EMVI 69% (18/26, 95% CI 48%-86%), CRM 73% (19/26, 95% CI 52%-88%) and primary tumor treatment response accuracy 100% (25/25, 95% CI 87%-100%). In Group 3 (62 patients), flexible sigmoidoscopy correctly identified complete or incomplete clinical response in 93% (40/43), compared with MRI 56% (24/40). When MRI and flexible sigmoidoscopy agreed, the combined accuracy was 93% (27/29).

Discussion/Conclusions

At UVMMC, MRI most reliably assessed CRM and was moderately accurate for nodal staging, but less so for T stage and EMVI. Accuracy declined further after neoadjuvant therapy, especially for primary tumor response assessment. Flexible sigmoidoscopy outperformed MRI in this setting, underscoring its value in non-operative management. MRI remains essential for baseline staging, particularly for CRM, but shows limited accuracy for T and N stage and EMVI. After neoadjuvant therapy, the accuracy of MRI further decreases, in this clinical situation flexible sigmoidoscopy more reliably predicted treatment response, supporting its role in non-operative management. Future directions include evaluating non generative artificial intelligence for ability to increase accuracy of MRI. We are currently expanding our project to include this.

Large Cell Neuroendocrine Carcinoma Mimicking Colon Adenocarcinoma

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Objectives

- 1) To present an unusual case of large cell neuroendocrine carcinoma.
- 2) To highlight the importance of early and accurate detection in aggressive cancers such as large cell neuroendocrine carcinoma.

Background

Large cell neuroendocrine carcinoma of the colon (LCNECC) is an extremely rare tumor, accounting for only 0.2% of all colonic carcinomas. It is an aggressive cancer with a poor prognosis due to early metastasis. It is also challenging to diagnose due to its tendency to mimic colonic adenocarcinoma. We present a patient with no known significant past medical history who exhibited clinical signs and symptoms suggestive of perforated appendicitis with a cecal mass, discovered to be an unusual case of LCNECC.

Case Presentation

A 57-year-old female with no relevant past medical or surgical history presented with 1 week of abdominal pain associated with fevers. Computed tomography (CT) of the abdomen and pelvis revealed an inflamed appendix with a 9.5 x 6.4 cm abscess contiguous with the right sidewall of the abdomen as well as cecal wall thickening extending into the proximal ascending colon, accompanied by a 7 x 4.7 cm irregular mass in the cecum. The patient's presentation was concerning for perforated appendicitis with associated malignancy. Given that the patient had no prior colorectal screening, a neoplasm could not be ruled out. The patient also noted significant weight loss over the past few months. However, her CEA was normal. At the time, the patient was started on IV antibiotics and underwent placement of a drain for the abscess. The fluid was purulent and sent for cytology; however, no malignant cells were seen. The patient was discharged with plans for a colonoscopy before an interval appendectomy.

The colorectal surgery service assumed care of the patient when she subsequently represented with an acute onset of worsening right lower quadrant abdominal pain after drain removal in the clinic. Labs were notable for leukocytosis. Repeat CT of the abdomen and pelvis showed increased pericecal stranding and edema with multiple locules of extraluminal gas in the right lower quadrant as well as above the liver and anterior right hemiabdome with concern for a perforated cecal mass. The patient underwent an exploratory laparotomy. There was purulence encountered on entry, and a large mass was found in the cecum with involvement of the small bowel. The mass had perforated into the retroperitoneal space with gross spillage of enteric contents. Ultimately, the patient underwent a right hemicolectomy with resection of approximately 50 cm of ileum with end ileostomy creation. An estimated 310 cm of small bowel remained.

Pathology revealed an intact appendix with a mass involving the cecum, ileocecal valve, and ascending colon. Immunostains were positive for CDX-2 and INSM1 (scattered) while negative for chromogranin, synaptophysin, and CD56. Ki67/MIB1 was 80 - 90%. These findings were consistent with a large cell neuroendocrine carcinoma, staged pT4b, pN1. The patient is currently undergoing FOLFIRINOX chemotherapy.

Conclusion

LCNECC is a highly malignant neoplasm that represents less than 1% of all gastrointestinal tumors. In this report, we present a rare case of LCNECC that initially appeared as perforated appendicitis with a cecal mass. As in this patient, at the time of its diagnosis, it is often found in advanced stages. This leads to challenges in treatment, which underscores the importance of early and accurate detection.

When Less is More: Attitudes about Less than Full-Time Work in Colorectal Surgeons

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Objectives

- 1) Identify barriers that prevent surgeons from pursuing less than full-time (LTFT) work schedules.
- 2) Identify facilitators of LTFT surgeon work schedules.
- 3) Examine the evolving emphasis on flexible work schedules for surgeons.

Background

The surgical profession has been characterized by demanding work schedules and an expectation of near-constant availability. However, recent years have seen an increasing awareness of surgeon burnout and attrition. In this context, some surgeons have pursued less than full-time (LTFT) work. This study aims to understand colorectal surgeon attitudes regarding LTFT work.

Methods

This was a qualitative study performed via semi-structured interviews with colorectal surgeons. Participants were recruited through a combination of purposeful and snowball sampling including both LTFT and full-time (FT) surgeons. LTFT was defined as working less than 1.0 full time equivalent. Interviews were transcribed and coded through thematic analysis.

Results

30 colorectal surgeons were interviewed. 5 LTFT, 1 previous LTFT, 10 FT with a partner who had worked LTFT, and 17 with no exposure to LTFT work. LTFT workers were more commonly female (100% vs. 50%; $p=0.03$), worked fewer hours a week (44.6 vs. 58.4; $p<0.01$) and were more years in practice (20.2 vs. 8.8; $p<0.01$).

Surgeons identified facilitators of LTFT work along two themes: clarity of expectations and good group communication. Barriers to LTFT work included lack of clarity of expectations, poor interpersonal communication, and decreased compensation.

When queried about the tradeoffs of LTFT work, surgeons more commonly identified costs (67%) rather than benefits. Professional costs included decreased compensation ($n=14$), disruption of group dynamics ($n=9$), challenges to surgeon identity ($n=9$), perceived decrease in patient care ($n=7$), and perceived decrease in surgical skill ($n=6$). The most frequently cited personal benefits to LTFT work were an improved ability to parent ($n=11$) and better work life balance ($n=10$). Professional benefits included decreased burnout ($n=4$) and improved efficiency ($n=4$).

Surgeons described a number of strategies to build flexibility in all careers (LTFT and FT) including incorporating non-clinical/administrative roles (n=14), the creation of boundaries (n=11), limiting scope of practice to anorectal/endoscopy (n=10), scheduling time for personal interests (n=3), and the development of a consistent work schedule (n=2). When probed about the future of surgeon work schedules, the majority (n=26) of surgeons predicted an increasing desire for work life balance.

Conclusion

Strategies to facilitate LTFT work focused on two themes: clarity of expectations and good group communication. While most surgeons viewed LTFT work as an opportunity to regain time for personal use, they also worried that significant professional costs could be associated with that choice. Interestingly, the strategies described for developing flexibility in all workers mirrored the facilitators to LTFT work. Looking forward, nearly all participants forecasted an increased desire for work-life balance in the colorectal surgical community; LTFT work and flexible work schedules may be an answer to this demand.

Table 1. Participant Demographics

Variable	All Participants (30)	LTFT (n = 6)	FT (n = 24)	p-value
Female, n (%)	18 (60)	6 (100)	12 (50)	0.03*
Years in practice, mean (\pm SD)	11.1 (\pm 10.6)	20.2 (\pm 9.2)	8.8 (\pm 9.8)	<0.01**
Extended leave, n (%)	14 (47)	4 (67)	10 (42)	0.28
Spouse/long-term partner, n (%)	29 (97)	6 (100)	23 (96)	0.62
Parent, n (%)	28 (93)	6 (100)	22 (92)	0.48
Group size, mean (\pm SD)	5.5 (\pm 2.4)	6.2 (\pm 4.7)	5.3 (\pm 1.6)	0.21
Had a work partner who worked LTFT, n (%)	10 (33)	3 (50)	7 (29)	0.34
Estimated hours worked per week, mean (\pm SD)	55.7 (\pm 10.0)	44.6 (\pm 10.1)	58.4 (\pm 8.1)	<0.01**
Practice setting				
Community hospital, n (%)	2 (7)	0 (0)	2 (8)	-
Academic center, n (%)	22 (73)	3 (50)	19 (79)	-
Private practice, n (%)	6 (20)	3 (50)	3 (13)	-
FTE, mean (\pm SD)	0.95 (\pm 0.1)	0.77 (\pm 0.1)	1 (\pm 0)	-

LTFT, less than full time; FT, full time.

*p \leq 0.05

**p \leq 0.01

Inequities in Early Hospital Discharge Following Resection of Colorectal Cancer

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Objectives

- 1) Understand disparities in early discharge following colorectal cancer resections.
- 2) Understand independent risk factor for prolonged length of stay following colorectal cancer resection.

Background

Expeditious discharge following colorectal cancer (CRC) surgical resection has been associated with improved outcomes, reduced costs and resource utilization, and appears to be safe without increasing readmission rates. Despite these established advantages, the impact of sociodemographic, clinical, and regional factors on early postoperative discharge is not clear. We aimed to examine drivers of early and late hospital discharge following elective colectomy or proctectomy for colon and rectal cancer and identify potential disparities.

Methods

Patients with stage I-III colon or rectal adenocarcinoma who underwent surgical resection in the National Cancer Database were included (2010-2022). We performed multinomial logistic regression for odds of early (<3 days) and late (≥7-30 days) discharge versus standard (3-6 days) incorporating several sociodemographic, clinical, and regional characteristics. We also evaluated the odds of being readmitted within 30 days of discharge for all groups using multivariable models. Colon and rectal cohorts were analyzed separately.

Results

Among 278,004 patients with colon cancer and 56,712 patients with rectal cancer, the strongest independent predictor of early discharge was robotic surgery (colon: OR=3.29, 95%CI=3.19–3.40; rectum: OR=1.32, 95%CI=1.23–1.41). Conversion from a minimally invasive to open approach was associated with lower odds of early discharge in both groups, compared with those that were open for the duration of the case (colon: OR=0.85, 95%CI=0.79–0.90; rectum: OR=0.81, 95%CI=0.69–0.95). Compared with the privately insured, Medicaid (colon: OR=1.65, 95%CI=1.58-1.72, rectum: OR=1.43, 95%CI=1.33-1.53), Medicare (colon: OR=1.41, 95%CI=1.37-1.45; rectum: OR=1.34, 95%CI=1.26-1.43), and uninsured (colon: OR=1.52, 95%CI=1.43-1.60; rectum: OR=1.33, 95%CI=1.20-1.48) patients were more likely to be discharged late. Early discharge was associated with lower odds of 30-day readmissions (colon: OR=0.87, 95%CI=0.83–0.91; rectum: OR=0.73, 95%CI=0.65-0.82).

Conclusions

Increased uptake of robotic surgery and more equitable distribution of minimally invasive surgical approaches may increase opportunities for early discharge among marginalized patient populations.

Safety of Stoma Reversal in Patients with Known Metastatic Cancer

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Objectives

- 1) Identify types and rates of complications following stoma reversal in patients with metastatic malignancy.
- 2) Compare complication rate to all-comers for ostomy reversal.

Purpose/Background

Presence of a stoma is a highly morbid condition that can have a significant impact on patient quality of life and requires investment of time and financial resources for proper care. Despite the associated morbidity, stoma reversal is often delayed in patients with metastatic disease due to concern for increased risk of post-operative complications, though data on outcomes is lacking. We sought to determine the rate of post-operative complications for patients with metastatic cancer undergoing ostomy reversal.

Methods/Interventions

Patients who underwent ostomy reversal at our institution from 2017-2023 were identified from billing records. A retrospective chart review was performed, focusing on patients with known metastatic cancer at the time of their ostomy reversal. Information on the rate and severity of post-operative complications within 30 days of reversal was collected from both the inpatient and outpatient electronic medical records. Complication severity was classified using the Clavien-Dindo system. 30-day readmission and mortality rates were also recorded.

Results/Outcomes

Fifty-seven patients were identified with known metastatic disease, 15 (26.3%) were M+ and 42 (73.7%) were N+. Of these 57 patients, 12 (21.1%) underwent ongoing cancer-directed treatment after their ostomy reversal. 13/57 (22.8%) patients suffered from a complication during their post-operative admission. Of these complications, 4 were Clavien-Dindo grade 1 (SBO, ileus, or superficial SSI opened at bedside), 7 were grade 2 (bleeding requiring transfusion, Clostridium difficile infection, atrial fibrillation, or diarrhea requiring pharmacologic intervention), and 2 were grade 3 (return to operating room). There were no grade 4 or 5 complications. Of the patients with complications, 8 had undergone loop ileostomy reversal, 3 had end ileostomy reversal, 1 had loop colostomy reversal, and 1 had end colostomy reversal.

Three additional complications were identified at the initial post-operative clinic visit, all of which were Clavien-Dindo grade 2 (UTI, thrush, diarrhea requiring pharmacologic intervention) and all of which were in patients who underwent loop ileostomy reversal. 15.8% of patients (9/57) were

readmitted within 30 days of surgery (6 loop ileostomy reversals and 3 end ileostomy reversals). Reasons for readmission included SBO, intra-abdominal abscess, need for local wound care, UTI, dehydration, and anastomotic leak. 4/57 patients (7.0%) required surgical (2) or IR (2) intervention within the 30-day post-operative period. There were no 30-day mortalities in this cohort of patients.

Conclusion/Discussion

The rate of major complications (grades 3-5) following ostomy reversal in this cohort of patients with known metastatic cancer was low (7.0%) and comparable to the rate for allcomers undergoing ostomy reversal. This suggests that presence of metastatic disease alone should not preclude ostomy reversal for patients who are otherwise good candidates for surgery. The morbidity of the stoma should be weighed against the morbidity of reversal to guide care discussion.

Comparison of Postoperative Outcomes in Robotic Versus Laparoscopic Hartmann's Reversal: A NSQIP Analysis

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Objectives

- 1) Compare postoperative complications for robotic vs laparoscopic Hartmann's reversal.
- 2) Identify patient factors associated with increased risk for postoperative complications.

Purpose/background

Hartmann's procedure reversal is a technically difficult procedure associated with significant postoperative morbidity and mortality. Previous studies have showed that a minimally invasive approach (either robotic or laparoscopic) to a Hartmann's reversal have increased in frequency over the past several years. We aim to compare postoperative complications for robotic versus laparoscopic Hartmann's reversal.

Methods

We utilized the 2022-2023 American College of Surgeons National Surgical Quality Improvement Program (NSQIP) database to identify all patients ≥ 18 years old who underwent a laparoscopic or robotic Hartmann's reversal procedure. We developed a multivariable regression model to identify postoperative outcomes in the robotic versus laparoscopic group. The primary outcome was defined as a composite of postoperative complications including stroke, myocardial infarction, wound infection, respiratory and renal failure. Secondary outcomes included unplanned conversion to open, return to the operating room, operative duration and total length of stay.

Results

We included a total of 5,553 patients who underwent a minimally invasive Hartmann's reversal from 2022-2023. 1,146 (21%) underwent a robotic procedure while 4,407 (79%) underwent a laparoscopic procedure. The mean age was 58 ($p=0.819$) for both groups. The robot group had a higher mean BMI (29.4 vs 28.8, $p=0.012$) while there were more smokers in the laparoscopic group (20.9% vs 18.1%, $p=0.035$). Those who underwent laparoscopic surgery had 26% higher risk of experiencing the composite of postoperative complications (OR 1.26 (1.03-1.55), $p=0.027$) than those who had a robotic approach. Patient factors that were associated with increased risk of postoperative complications included: BMI of 35-39.9 (OR 1.66 (1.16-2.36), $p=0.005$), ASA class 3 (OR 4.91 (1.15-20.89), $p=0.031$) and smokers (OR 1.41 (1.10-1.80), $p=0.006$). Mean operative time was longer in the robot group (252 minutes vs 214 minutes, $p<0.001$) while mean length of stay was shorter in the robot group (4.3 days vs 5.3 days, $p<0.001$). Conversion and reoperation rates were similar between the approaches.

Conclusion

In this analysis of minimally invasive Hartmann's reversals using the NSQIP database, the robotic approach was associated with a lower rate of postoperative complications compared to the laparoscopic approach, despite longer operative times. Additionally, robotic procedures were associated with a shorter hospital length of stay. While this study cannot control for surgeon experience and biases for operative approach, in this cohort of patients, a robotic Hartmann's reversal was associated with improved 30-day postoperative outcomes relative to the laparoscopic approach.