

COLORECTAL SURGERY GOALS AND OBJECTIVES (PGY1, 2/3/4, 5)

GOALS

Through rotation on the colorectal service (CRS), residents shall attain the following goals:

I. Patient Care

- A. Preoperative Care Setting: outpatient clinic and inpatient service (primary and consultation).

Residents will evaluate and develop a plan of care for preoperative patients with a variety of benign and malignant colon, rectal, and anorectal conditions. The plan shall include any intervention(s) that will successfully prepare a patient for surgery. The resident will perform complete and detailed history and physical examinations of patients being considered for elective as well as urgent/emergent surgery (All PGY)

- i) The resident will learn to obtain and interpret laboratory and radiologic tests that are appropriate for the condition being treated and/or the procedure being planned (All PGY). There will be an emphasis on understanding the indications for colonoscopy, interpreting the important details/findings in a report (location, tattoo, endoscopic “resectability”) and translating the endoscopic findings into an operative plan.
- ii) The resident will demonstrate an understanding of the principles of preoperative patient selection and optimization (ie cardiopulmonary risk assessment; nutritional status; special considerations such as thrombophilias/bleeding disorders, steroid dependent patients, timing of biologic doses, multiple comorbidities, etc...) (PGY 3-5)
 - Specifically, the resident should learn to anticipate the “likelihood” that a patient will require a stoma based on patient risk factors for anastomotic complication or anatomic considerations
- iii) The resident will participate in the informed consent process for patients being scheduled for elective and urgent/emergent procedures or surgeries. The informed consent process includes identifying and reviewing with the patient the risks, benefits, and alternatives of the planned intervention (PGY 1, 3, 4, 5)

- B. Operative Care Setting: 5N and 2W

The following are a list of essential common operations that the resident(s) can be expected to have exposure to by the completion of CRS rotation:

- Open, laparoscopic, and robotic right/sigmoid (segmental) colectomy (PGY 2 and above)
- Open and laparoscopic small bowel resection (All PGY)
- Ileostomy creation/closure (All PGY)
- Colostomy creation/closure (PGY 3-5)
- Rectopexy (PGY 2 and above)

Altmeier procedure (PGY2 and above)
Complex wound closure (All PGY)

Seton placement (All PGY)
Lateral internal sphincterotomy (All PGY)
Anorectal abscess drainage (All PGY)
Hemorrhoidectomy (All PGY)

Proctoscopy (All PGY)
Anoscopy (All PGY)
Flexible sigmoidoscopy and diagnostic colonoscopy (All PGY)

The following are a list of the complex operations that the resident(s) can be expected to have exposure to by the completion of their CRS rotation:

Strictureplasty for Crohn's disease (PGY 4, 5)
Open, laparoscopic, and robotic abdominoperineal resection (APR) (PGY 3, 4, 5)
Open, laparoscopic, and robotic low anterior resection (LAR) (PGY 3, 4, 5)
Open, laparoscopic, and robotic ileal pouch anal anastomosis (IPAA, J-pouch) (PGY 4 and 5)

C. Postoperative Care Setting: outpatient surgery center, inpatient floor, outpatient clinic

Residents shall develop and follow through with a plan of care for the post-operative colorectal surgery patient. This plan generally focuses on, but is not limited to: pain control; fluid and electrolyte management; resuscitation of critically ill patients; interfacing with stoma nurses (CWOCNs) and other consultants (GI); the identification and treatment of common post-operative complications including bleeding, infection, ileus, bowel obstruction, thromboembolism (among others); identification of discharge appropriate patients and coordination of care as they transition back to home following their surgery/procedure.

1. Outpatient surgery center

- A) The resident will follow up on any and all pertinent post-operative tests, imaging studies prior to discharging a colorectal surgery (CRS) patient who has undergone an elective, same day procedure (All PGY)
- B) The resident will successfully choose an oral analgesic home regimen that will adequately manage a CRS patient's pain who has undergone an elective, same day procedure (All PGY). Please note the current emphasis on tailoring narcotic equivalent to procedure.
- C) The resident will successfully complete and review with the CRS patient who has undergone an elective, same day procedure the patient's discharge instructions. Key points will include activity restrictions, wound care/drain instructions, and reconciliation of the patient's medication list (All PGY)
- D) The resident will successfully coordinate appropriate surgical follow up (All PGY)

2. Inpatient floor

A) The resident team is expected to make morning rounds on the inpatient CRS patient list (including the consult service) prior to the start of the day's activities (OR cases, clinic) (All PGY)

B) After rounds, the chief resident and mid-level resident are expected to contact the attending physicians of record to review the plan of the day for each individual patient before 9am. This work can be divided between the senior residents. Common issues to be discussed should include vital signs (including pain control), Is/Os, physical exam findings, daily labs, medication review, consultant recommendations. The daily plan will generally consist (among others) of identifying possible discharge appropriate patients, advancement of diet, repletion of electrolyte abnormalities, adjustment of medications, drain and tube management, need for diagnostic tests to be ordered or new consults to be called. **The resident can update faculty in person that they are going to see either in clinic or the OR. Routine updates can be provided by text message but any patient with ongoing acuity or a clinical status change identified on rounds MUST be reviewed via telephone call or in person conversation in real time (PGY 2 and above).**

C) The resident team will divide the work for the day in such a manner that it will be performed as efficiently as possible. Priority should be given to obtaining and following up on important studies expeditiously as well as discharges. The goal for all discharges is out the day by noon (All PGY).

D) The intern or junior resident should provide as close to real time updates as possible with changes in patients condition, new consults, results of important tests to the chief resident who can then relay the information to the attending of record (PGY 1). When clinical obligations warrant the intern and junior resident should feel welcome to contact the involved attending directly in order to expedite patient care.

3. Out-patient clinic

A) Each resident on service will be expected to attend clinic for one day per week (on average) of the course of the rotation. Learning and exposure to imaging/procedures will be emphasized as will be seeing post-operative patients that the resident operated on. An expectation would be for the resident to see no more than 5 patients per day to maximize educational yield. -CRS clinic includes important ambulatory procedures which should be learned by the resident (All PGY).

II. Medical Knowledge

Resident fund of knowledge as it relates to colorectal surgery will be expanded through a variety means, some of which are structured and others of which require independent initiative from the residents who are rotating on the service. These include: 1) Conferences, 2) Journal club 3) Assigned or recommended readings 4) TWIS quizzes.

1. Conferences

A) Residents are expected to attend weekly Wednesday morning morbidity and mortality conference. Complications from the CRS service are to be presented by the resident who was involved in the case in front of a group of their peers as well as the surgical faculty at large. This conference will give residents an opportunity

to think critically about specific steps in the preoperative workup, operative conduct and/or post-operative care of patients who have experienced a complication and identify opportunities for alternative decisions in similar, future cases that may lead to improved outcomes. Evidenced based practice patterns should be emphasized when applicable. Presentations should be reviewed in advance with the responsible faculty (All PGY).

B) Residents are expected to attend weekly multidisciplinary GI oncology (Thursdays at noon) tumor board. These tumor boards serve as a fertile environment for residents to i) gain an appreciation of the multidisciplinary approach that is unique to the care of cancer patients and ii) gain an understanding of staging (both clinical and pathologic), prognosis and practice guidelines as they relate to neoadjuvant, surgical and adjuvant treatment strategies for cancer patients (All PGY who are available). There is also an interdisciplinary IBD conference held once a month which should be attended as able.

2. Journal Club: Residents are expected to lead discussion at monthly combined surgical oncology and colorectal surgery journal club (likely Wednesday evenings). A yearly curriculum of high yield topics will be formulated by the surgical oncology faculty (Dr. Kledzik). Articles will be assigned to the resident team at least one week in advance and each resident will have article on which to lead discussion. Faculty will be present to facilitate discussion (All PGY).

3. Assigned Readings: Residents will cover various CRS topics, among others, as part of their assigned weekly reading curriculum through the program at large. The SCORE curriculum is the chosen curriculum for the general surgery residency. CRS faculty will all participate in leading didactic discussion(s) especially in clinic. Additionally, residents are encouraged to educate themselves upon the scientific information relating to CRS.

A) **The recommended text is The ASCRS Textbook of Colon and Rectal Surgery, Third Edition, which is available in electronic format from Dr. Murken on request. ASCRS Clinical Practice Guidelines (CPGs) are also available for free from the ASCRS website.**

4. TWIS Quizzes: Residents are expected to complete TWIS quizzes that are outlined in the program curriculum. Areas of deficiency as defined by their performance on the TWIS quizzes should serve as the focus for future study plans.

III. Practice-based Learning

Residents are expected to engage in critical self-review as it relates to the cases in which they participate, whether it be in the operating room, on the wards or in the outpatient setting.

1. Morbidity & Mortality Conference – Discussion should center on an evidence based discussion of quality improvement (All PGY).

2. Residents shall keep logs of their cases and track their operative proficiency as gauged by whether they assisted or were the surgeon junior or senior or teaching assistant (All PGY).
3. Residents shall distribute operative cards to attendings with whom they have performed cases so that they can be filled out and placed into said resident's Clinical Competency Committee (CCC) folder (All PGY).
4. Residents shall familiarize themselves with evidence based guidelines related to disease prevention, patient safety and quality (SCIP measures, DVT prophylaxis guidelines, screening colonoscopy guidelines, etc) as well as hospital specific matters related to safety and quality (NSQIP data, QITI data, pharmacy formularies for hospital acquired infections, isolation precaution measures) (All PGY).

IV. Interpersonal and Communication Skills

The CRS service provides unique opportunities for residents to develop their interpersonal and communication skills, both in the context of physician to patient interactions as well as in interactions as part of the health care delivery team.

- A) Residents will be given the opportunity to observe (PGY 1) and eventually participate in (PGY 4, 5) the process of delivering bad news to patients and their families/friends. These opportunities exist in the outpatient as well as the inpatient setting and arise in the context of discussing pathology reports, diagnostic findings and prognosis (among others).
- B) Residents will also be called upon to communicate the daily plan and progress of patients admitted to the hospital to patients, their family and the entire healthcare team involved in the care of that particular patient. The healthcare team will include nurses, therapists, and other physicians serving as consultants (All PGY).
- C) Residents shall learn to document their practice activities in such a manner that is clear, concise and in accordance with the standards of medicolegal documentation (All PGY).
- D) Residents shall participate in the informed consent process for patients being scheduled for elective and emergent/urgent procedures or surgery (All PGY). A resident should never feel solely responsible for obtaining consent especially not for a procedure with which they are not familiar. It is encouraged that the resident review any questions or concerns with the faculty with respect to consent for surgery.
- E) Residents shall learn to give and receive detailed sign-out to facilitate continuity of care during handoffs (All PGY). A comprehensive email signout should be sent to all residents and staff for weekend coverage when the service is being transitioned to a new resident. This is NOT required when continuity is in place. Faculty will separately sign out their patients to the on call attending in person, by telephone, or by email.

V. Professionalism

The CRS rotation offers many opportunities for residents to hone their skills as they relate to professionalism.

- A) Residents will have opportunities to learn how to be honest and sincere with patients. Examples include breaking bad news and explaining surgical complications (All PGY). In these scenarios it is advised to review the details of the patients care with the staff before addressing the patient so that inconsistency is limited.
- B) Residents shall demonstrate a commitment to the continuity of care of a patient within the confines of the 80-hour duty restrictions (All PGY).
- C) Residents shall learn to maintain patient confidentiality (All PGY).
- D) Residents will learn the importance of accurate medical documentation (All PGY).
- E) Residents will be expected to adhere to the hospital's code of professional conduct as it relates to appearance and (All PGY).
- F) Residents will be expected to be punctual and prepared for all cases, clinics and conferences that they are participating in on any given day (All PGY).

VI. Systems-based practice

The CRS rotation provides residents with inpatient and outpatient opportunities to grow within the systems based practice core competency.

- A) Residents will learn to practice high quality cost effective, evidence based patient care. This knowledge will be gained through participation in the conferences listed above in the medical knowledge competency and include the M&M, Tumor Boards and journal clubs (see discussion about each of these above) (All PGY).
- B) Residents will be educated about and held accountable for compliance with the surgical care improvement project (SCIP) standards as they relate to the perioperative care of CRS patients and include but are not limited to reducing surgical site infection(s) through the appropriate use and choice of perioperative antibiotics; eliminating or reducing catheter associated urinary infections by early removal of indwelling catheters from post-operative patients, and other ERAS parameters (All PGY).
- C) Residents will be exposed to protocol driven practices as they related to routine post-operative care with ERAS protocols in mind, central line insertion in ICU patients, selection of antibiotics for hospital acquired infections based on institution specific resistance patterns, blood transfusion criteria, and observation of contact precautions for patients with multidrug resistant infections and C. diff (among others) (All PGY).
- D) Residents will be educated about the National Surgical Quality Improvement Project (NSQIP) measures and outcomes and how they relate to the changing landscape of reimbursement patterns for individual providers and hospital systems at large (All PGY).