

**Components of the Green (Colorectal/Bariatric)
Rotation Syllabus
6/07**

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Colorectal/Bariatric (Green) Surgical Service

I. Orientation Guide to the Service

A. Composition of the Service: Lines of Supervision

1. The Green Surgery Service includes a chief resident (PGY-5), junior resident (PGY-2 or PGY-3) and intern (PGY-1) as well as a variable number of medical students and physician's assistant students. Residents are supervised by seven faculty members with direct responsibility for the patients on the service.
2. Residents are responsible for day-to-day care of all "green" surgery patients under supervision of the faculty. Residents are responsible for communicating to the individual directly senior to them all admissions, consultations, and significant changes in the condition of all inpatients and of all outpatients who may call with problems. Monday through Thursday residents should communicate directly with the attending responsible for each patient; on weekends, problems should be addressed with the on-call faculty member.

B. Roles and Responsibilities of Each Team Member

1. During weekdays and when they are on call, the interns are responsible for care of ward patients. They are required to apprise their senior resident and/or chief resident of changes in condition of patients.
2. Junior residents are responsible for supervising intern care of ward patients, for primary care of ICU patients, and for consults from other services directed to the green service during weekdays. They answer calls from discharged patients while on call and during weekdays in the absence of the nurse practitioner. They are responsible to keep their chief resident apprised of significant changes in patient condition.
3. Chief residents are responsible for overall smooth running of the service and must serve as a role model for appropriate professional behavior, leadership, surgical knowledge, and patient care.

For a list of specific responsibilities of each team member, see attached list.

C. General Surgery Green Weekly Schedule

1. Monday

- 700-1000 Grand Rounds and Resident Conference – all students and residents. Old Library Auditorium.
- 900-1200 Robert O'Rourke and Bruce Wolfe – Bariatric Clinic CHH 6th floor. Bariatric Fellow and Bariatric NP.
- Colorectal 10 Hour surgical block time
Cliff Deveney; 4 hours inpatient surgery block time
- 0830-1500 Kim Lu colorectal clinic CHH 6th floor
- 1100-1500 Karen Deveney clinic. Resident and Susan Schenk ANP-at DHC
- 1300-1700 Clifford Deveney clinic, residents, NP and students. CHH 6th floor
- 1700 M&M Conference, UHSB60, South Hospital 8th floor

2. Tuesday

- 0730 O.R. for lap fellow and Dr. Robert O'Rourke
Robert Martindale 10 hours South OR block time
- 0930 Multidisciplinary Conference, 14A Team, 14A Nurses Lounge,
Resident and NP
- 0800-1600 Daniel Herzig clinic, CHH, 6th floor
- 1700 Med Surgical Conference, UHSB60, South Hospital, 8th Floor,
Resident presents

3. Wednesday

- 0700 Trauma/EGS Conference, 11th floor Doernbecher Conference
Room
- 0730 Cliff Deveney O.R. block
- 1400-1500 Green Surgery Teaching Conference, MacHall 3144: Don Trunkey
Library, 3rd floor

4. Thursday

- OR 10 hours block time for Colorectal, 8 hours outpatient time
- 0700-0800 GI Conference 14D Hatfield Conference Room
- 0800-1000 Lap Lab (when scheduled)
- 0800-1500 Robert Martindale Surgery clinic CHH 6th Floor
- 1300-1700 Clifford Deveney clinic

5. Friday

- 0630-0730 Chief Conference with Dr. Hunter
- 0730 O.R. Bruce Wolfe, Clifford Deveney, Karen Deveney, Robert
Martindale

D. Policies

1. All patients must have a history and physical examination both by an intern or resident and an attending physician documented IN THEIR CHART within 24 hours of admission.
2. All patients must have daily progress notes that include the physical assessment, progress, and plan of care.
3. All patients undergoing operations should have a pre-operative check that their work-up, orders, consent, and laboratory work is completed and satisfactory for them to proceed with surgery.
4. All patients should have a brief operative note documented in the medical record immediately after their operations.
5. All inpatients undergoing surgery should have a post-operative check documented in their medical record on the evening of their operation.
6. Discharge summaries should optimally be dictated within 24 hours before discharge but should in no case be dictated later than 24 hours after discharge. Discharge dictations should always include complete name and address of all referring physicians who should receive copies of the document.
7. Residents should report to the OR prepared with appropriate knowledge of the patients' clinical history, relevant imaging studies, and operative strategies.
8. All operative reports must be dictated before the end of the day of surgery.
9. Appropriate professional dress and demeanor are expected at all times.
10. Residents are expected to attend required department and service conferences.
11. Residents are required to comply with ACGME mandated duty hours standards.
12. Residents are expected to report to a resident senior to them or to an attending if they are sufficiently stressed or fatigued that they feel their duties to safe patient care may be compromised.

COLORECTAL/BARIATRIC (“GREEN”) SERVICE: COMMON OBJECTIVES AND EVALUATION TOOLS FOR RESIDENTS AT ALL LEVELS

Domain	Objective	Evaluation Tool
Patient Care	Demonstrate a caring and respectful behavior towards patients and their families	360° evaluation (nurses, patients)
	Gather essential, complete, and accurate information about their patients	Teaching rounds and chart review (chief resident and faculty assessments)
	Demonstrate ability to choose appropriate care interventions based on medical facts, patient preferences, and current scientific evidence	Teaching rounds and chart review (chief resident and faculty assessments)
	Demonstrate ability to counsel and educate patients and their families.	360° evaluation (patients)
	Perform competently the basic procedures expected at their level of training	Skills assessment (resident and faculty evaluations)
	Achieve year-specific learning objectives	Oral exam
	Demonstrate ability to prioritize competing care needs of patients on the service	Resident and faculty evaluations
Medical Knowledge	Demonstrate an understanding of the pathophysiology of diseases encountered in patients on this service	Teaching rounds (chief resident and faculty evaluations)
	Choose appropriate care interventions for patients on the service and support the choices by reference to current literature	Teaching rounds (chief resident and faculty evaluations)
Medical Knowledge	Achieve year-specific learning objectives	Oral exam
Practice-Based Learning and Improvement	Demonstrate ability to analyze their own decisions and performance; describe areas of deficiency and strategies for improvement	Teaching rounds (faculty evaluations)
	Demonstrate use of literature (both text and on-line) to select treatment strategies for patients on the service	Teaching rounds (faculty evaluations)
	Facilitate learning of students on the service	Performance evaluations by students

	Demonstrate overall clinical competence	Faculty evaluations
Domain	Objective	Evaluation Tool
Interpersonal and Communication Skills	Effectively communicate care plans to patients, families, nurses, and other health care personnel	360° evaluations (patients, nurses, ward clerks, case managers, therapists)
	Teach students the basics of preoperative and postoperative care, writing orders and progress notes	Performance evaluations by students
	Write orders and notes in a coherent, legible fashion	Chart review (faculty); 360° evaluations (nurses, ward clerks)
	Respond promptly and courteously to requests of staff; answer pages promptly	360° evaluations (nurses, ward clerks)
Professionalism	Demonstrate respect for others Display tolerance to others' opinions Display sensitivity to diversity Accept responsibility for own actions Place needs of patients and team above own self-interest Teach and model responsible behavior	360° evaluations (patients, nurses, ward clerks) Student evaluations Faculty evaluations
Systems-Based Practice	Work cooperatively with other disciplines to provide efficient and effective patient care	360° evaluations (nurses, case managers) Chief resident and faculty evaluations
	Demonstrate ability to use pathways and protocols	360° evaluations (nurses, case managers) Chief resident and faculty evaluations
	Demonstrate attention to cost-effective care in ordering tests and planning interventions	360° evaluations (nurses, case managers) Chief resident and faculty evaluations

**OREGON HEALTH & SCIENCE UNIVERSITY
DEPARTMENT OF SURGERY RESIDENT EVALUATION**

Name:

Service:

Rotation Begin Date:

Rotation End Date:

Use the scale of 1-5 (1-poor, 5-excellent) to rate the following areas regarding the resident's performance. If not applicable or unobserved, please indicate by using "N".

1=Unsatisfactory 2=Marginal 3=Satisfactory/Average 4=Above Average 5=Exceptional

MEDICAL KNOWLEDGE

<u>Anecdotal approach</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Evidence-based approach to care</u>
<u>Limited knowledge base</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Extensive knowledge base</u>
<u>Unable to apply basic science knowledge to clinical care</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Easily and consistently applies basic principles to clinical care</u>

PATIENT CARE

<u>Gathers incomplete, inaccurate patient history and exams</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Gathers accurate and complete clinical data</u>
<u>Fails to synthesize clinical data to make decisions</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Synthesizes all available information in clinical decisions</u>
<u>Takes no responsibility for accomplishing goals in patient care</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Innovative and resourceful in accomplishing goals in patient care</u>
<u>Care plans unfocused, poorly managed</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Focused, concise, and complete patient care plans</u>
<u>Unable to prioritize patient problems</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Efficient and facile in prioritizing patient problems</u>
<u>Rarely counsels or teaches patients</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Effectively counsels and educates patients</u>
<u>Requires step-by-step direction for procedures</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Requires minimal supervision for procedures</u>
<u>Unprepared for operative cases</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Well prepared for operative cases</u>
<u>Deficient operative skills</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Excellent operative skills</u>

PRACTICE-BASED LEARNING

<u>Fails to perform self-evaluation</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Consistently evaluates own performance for improvement</u>
<u>Resists or ignores feedback</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Invites and embraces feedback</u>
<u>Lacks critical analysis skills</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Critically reads and discusses literature</u>
<u>Fails to use technology to enhance learning</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Effectively uses technology to enhance learning</u>
<u>Rarely teaches or shares knowledge</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Facilitates learning of entire team</u>

INTERPERSONAL & COMMUNICATION SKILLS

<u>Poor listening and nonverbal skills or frequently short and impatient</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Always listens, explains; values opinions of others</u>
<u>Writing is unfocused, illegible</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Writing is clear, concise</u>
<u>Frequently unavailable to patients, nurses, peers</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Always available and cordial to all</u>
<u>Does not earn respect of patients, peers</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Highly respected by all</u>
<u>Disorganized presentations</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Presentations lucid and well organized</u>

PROFESSIONALISM

<u>Does not display respect for others</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Always demonstrates respect for others</u>
<u>Lacks integrity, honesty</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Demonstrates integrity, honesty, consistency</u>
<u>Shirks responsibility</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Willingly accepts responsibility</u>

SYSTEMS-BASED PRACTICE

<u>Unable or unwilling to effectively access ancillary resources</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Highly effective with ancillary resources</u>
<u>Provincial in approach, interactions</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Always involves other appropriate services and resources</u>
<u>Fails to use pathways, protocols</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Consistently invokes and improves pathways, protocols</u>
<u>Causes excessive cost in patient care</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Cost effective in care delivery</u>
<u>Unsupportive of staff, peers, team</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>N</u>	<u>Supports/involves entire team in patient care</u>

GLOBAL EVALUATION

Please provide a brief narrative description of critical incidents (both positive & negative) that support the above evaluation:

Green Surgery: Colorectal Surgery Goals

PGY-1 (Intern) Goals

Medical Knowledge

1. Understand the anatomy, histology, and function of the anal canal.
2. Understand the anatomy, histology, and function of the colon and rectum.
3. Understand the pathogenesis of anal abscess/fistulas.
4. Understand the pathogenesis of anal fissures.
5. Understand the anatomy and pathogenesis of hemorrhoidal disease.
6. Understand the viral etiology and natural history of condyloma accuminatum.
7. Understand the anatomy and pathogenesis of pilonidal disease.
8. Understand the anatomy and pathogenesis of hidradenitis suppurativa.
9. Understand the pathogenesis and natural history of anal, rectal, and colon cancer.
10. Understand the progression of normal colonic epithelium to cancer.
11. Understand the epidemiology and natural history of lower GI bleeding.

Patient Care

Bedside/clinic care

1. Understand how to treat acute or chronic perianal abscess/fistulas.
2. Understand the medical and surgical treatment for anal fissures.
3. Understand the medical and surgical treatment options for bleeding hemorrhoids.
4. Understand the surgical management options of condyloma accuminatum.
5. Understand the surgical management options of pilonidal disease
6. Understand the surgical management options of hidradenitis suppurativa.
7. Learn indications for small bowel follow through, barium enema, abdominal/pelvic CT, and PET scan.
8. Understand the workup of lower GI bleeding.
9. Understand the difference between care for ileostomies and colostomies.

Technical skills

1. Learn how to drain simple and horseshoe perianal abscesses.
2. Learn how to perform fistulotomies or place setons through fistula.
3. Learn how to perform a lateral internal sphincteromy for fissures.
4. Learn how to band a prolapsing internal hemorrhoid.
5. Learn how to excise a mixed internal/external hemorrhoid.
6. Learn how to excise anal condyloma.
7. Learn how to drain pilonidal abscess or incise a pilonidal sinus.
8. Learn how to incise the sinuses of perianal hidradenitis.
9. Learn how to place an NG tube to ruleout an upper source for a lower GI bleed.
10. Learn how to place an ostomy bag.
11. Learn how to perform anoscopy.

Professionalism

1. Be sensitive to a patient's socioeconomic and cultural context.
2. Understand the ethical principles of patient autonomy, informed consent, and advanced directives.

Interpersonal and Communication Skills

1. Learn how to listen and assess nonverbal cues from patients, families and staff.
2. Understand the need for timely communication of adverse events or the results of new studies to senior residents, attending staff, and patients.
3. Learn when nurse phone calls require an immediate patient assessment.
4. Learn how to communicate effectively/compassionately with patients, families, nursing staff, case coordinators, social workers, senior residents, and attending staff.
5. Learn to efficiently sign-out patients to other teams.

Practice-based learning

1. Understand when an adverse event occurs and the need to modify bedside care to treat the problem and prevent future occurrences.
2. Attend morbidity and mortality conferences and understand how senior residents make practice changes after adverse events.

Systems-based practice

1. Understand and use clinical pathways for postop care of colorectal surgery patients.
2. Learn to utilize case coordinators to provide cost-effective, but quality healthcare.
3. Understand the role of diagnostic radiologists, interventional radiologists, radiation oncologists, medical oncologists, and gastroenterologists in the multidisciplinary care of the colorectal patient.

PGY-3 (Junior Resident) Goals

All intern goals as well as these Junior Resident specific goals.

Medical Knowledge

1. Understand the differences between Crohn's disease and Ulcerative Colitis.
2. Understand the epidemiology and natural history of cecal/sigmoid volvulus.
3. Understand the epidemiology and natural history of sigmoid diverticulitis
4. Understand the pathophysiology of Ogilvie's syndrome.
5. Understand the pathophysiology of enterocutaneous fistulas.
6. Learn indications for genetic screening of families of FAP/HNPCC/MYH patients.

Patient Care

Bedside/clinic care

1. Understand the medical management of inflammatory bowel disease.
2. Understand complications of inflammatory bowel disease requiring surgical interventions.
3. Understand the surgical options for Crohn's and Ulcerative Colitis.
4. Understand the staging of anal, rectal, and colon cancer.
5. Learn indications for screening or diagnostic colonoscopy.
6. Understand the management of enterocutaneous fistulas.

Technical skills

1. Learn how to efficiently lyse abdominal adhesions
2. Learn how to perform a small bowel resection for either Crohn's disease or an enterocutaneous fistula.
3. Learn how to perform stricturoplasty.
4. Learn how to mobilize the hepatic or splenic flexures.
5. Learn how to ligate the ileocolic artery and the inferior mesenteric vessels.
6. Learn how to identify the left and right ureters.
7. Learn how to do a right, left, or sigmoid colectomy.
8. Learn how to perform colonoscopy by the one-person and two-person methods.
9. Learn how to perform rigid proctosigmoidoscopy.

Professionalism

1. Learn how to communicate effectively/courteously as consultant.

Interpersonal and Communication Skills

1. Learn how to coordinate care with primary team.
2. Learn how to give bad news to family members.
3. Learn to counsel patients re: operative risks.

Practice-based learning

1. Learn to recognize adverse events in the intensive care unit or operating room, to correct the problems, and to prevent future recurrences.

Systems-based practice

1. Learn when to consult gastroenterology, medical oncology, and/or radiation oncology in the management of anal, rectal, and colon cancer.
2. Understand the multidisciplinary approach to inflammatory bowel disease.

PGY-5 (Chief Resident) Goals

All intern and junior resident goals as well as these Chief Resident specific goals.

Medical Knowledge

1. Understand the nervous, lymphatic, vascular, and nearby genitourinary structures that may be injured during a proctectomy.
2. Understand the indications for subtotal colectomy in familial colorectal syndromes.
3. Understand the indications for restorative total proctocolectomy in inflammatory disease.
4. Understand the indications for a protective diverting ileostomy.
5. Understand the pathophysiology of surgically correctable constipation.
6. Understand the anatomy and pathogenesis of anal sphincter defects.
7. Understand the workup of constipation and fecal incontinence.
8. Understand the anatomy and pathogenesis of rectal prolapse.
9. Understand the advantages and disadvantages of a double-stapled anastomosis vs. a hand-sewn anastomosis.

10. Understand the indications for a straight coloanal anastomosis vs. a colonic J-pouch-anal anastomosis.
11. Understand the different dimensions for an ileal vs. a colonic J pouch.
12. Understand the indications for rectal mucosectomy.
13. Understand the indications for intersphincteric proctectomy.

Patient Care

Bedside care

1. Learn to recognize deviations from normal postop course and what studies or interventions are needed for each problem.

Technical skills

1. Learn how to do an open restorative proctocolectomy.
2. Learn how to do an open subtotal colectomy.
3. Learn how to do an overlapping anal sphincteroplasty.
4. Learn how to do a coloanal anastomosis.
5. Learn how to construct a colonic-J pouch.
6. Learn how to construct an ileal-J pouch.
7. Learn techniques to enable an ileal-J pouch to reach the anus.

Professionalism

1. Learn to coordinate consultant care for service patients.
2. Understand the need to model conscientious, ethical, and culturally sensitive behavior for the junior residents.

Interpersonal and Communication Skills

1. Learn how to speak with patient families after an operation.
2. Learn how to counsel patients and families after adverse events.
3. Learn to formulate a daily and long-term patient management plan and delegate responsibilities to junior residents.
4. Learn to respectfully disagree with attendings if there is some concern about patient management.

Practice-based learning

1. Within the public context of M&M conference, recognize adverse events, why they happened, how to manage them, and how to prevent them.
2. Use the literature to guide M&M presentations.

Systems-based practice

1. Learn to coordinate consultant care for ICU and ward patients.
2. Learn to propose various postop care plans depending on insurance/socioeconomic restraints.

PGY-1 (Intern) Objectives

Medical Knowledge (evaluated by end-of-service oral exam)

1. Describe the anatomy, histology, and function of the anal canal.
2. Describe the anatomy, blood supply, and lymphatic drainage of the colon and rectum.
3. Contrast the different type of anal fistulas.
4. Differentiate between internal and external hemorrhoids.
5. Describe the cause and natural history of anal condyloma, and indicate how HIV status affects the natural history.
6. Describe the cause of pilonidal disease.
7. Describe how perianal hidradenitis suppuritiva occurs.
8. Differentiate the histology and epidemiology of anal, rectal, and colon cancer.
9. List the causes of lower GI bleeding.

Patient Care

Bedside/clinic care (evaluated by end-of-service oral exam)

1. Describe how to drain an acute perianal abscess.
2. List the surgical options for chronic anal fistulas.
3. Contrast the medical and surgical options for internal and external hemorrhoids.
4. Describe the surgical treatment and the indications for biopsy of perianal condyloma.
5. List the advantages and disadvantages of excision vs. incision for pilonidal disease.
6. Cite the indications for small bowel follow through, barium enema, abdominal/pelvic CT, and PET scan.
7. Describe an algorithm to treat stable or unstable lower GI bleeding.
8. Contrast the anatomic and physiologic differences between ileostomies and colostomies.

Technical skills (evaluate by faculty on performance rating form)

1. Demonstrate an incision/drainage of an acute perianal abscess
2. Perform a posterior midline fistulotomy and bilateral counterdrainage for a horseshoe perianal abscess.
3. Perform a lateral internal sphincterotomy.
4. Band an internal hemorrhoid in clinic.
5. Excise a mixed internal/external hemorrhoid after obtaining adequate vascular control.
6. Excise large anal condyloma, while fulgurated smaller ones.
7. Incise a pilonidal sinus.
8. Place an NG to r/o an upper source of a lower GI bleed.
9. Assist enterostomal nurse in placing an ileostomy bag.
10. Perform diagnostic anoscopy in clinic.

Professionalism (360 evaluation by residents/nurses)

1. Courteously communicate with patients and nursing staff re: diagnostic plans for the day.
2. Obtain informed consent from patients.
3. Inquire whether a patient has an advanced directive or power of attorney.

Interpersonal and Communication Skills (360 evaluation by residents/nurses)

1. Notify senior residents and attendings in a timely fashion about any adverse events or the results of diagnostic tests.
2. Describe criteria for immediate patient assessment after a nursing phone call.

Practice-based learning (evaluation by oral exam)

1. Describe periop practices to minimize wound infections and anastomotic leak.
2. Perform literature searches to review advances in care of the colorectal surgery patient.

Systems-based learning (evaluation by oral exam and by 360 evaluation)

1. Describe how the clinical pathways streamline blood testing and dietary changes postop.
2. Communicate with case coordinators re: patients' postop needs.
3. Describe the role of diagnostic radiologists and interventional radiologists for a patient with an intra-abdominal abscess.
4. Describe the role of a gastroenterologist in a lower GI bleed.
5. Contrast the roles of medical oncology and radiation oncology in colon and rectal cancer.

PGY-3 (Junior Resident) Objectives

Medical knowledge (evaluated by oral exam)

1. Contrast Crohn's disease and ulcerative colitis.
2. Describe the epidemiology and presentation of cecal and sigmoid volvulus.
3. Compare the natural history of diverticulitis in patients above and below the age of 50.
4. Describe the epidemiology and pathophysiology of Ogilvie's syndrome.
5. Describe the electrolyte/fluid disturbances of high and low enterocutaneous fistulas.
6. List the indications for genetic screening a patients with a family history of cancer. State what genes are associated with FAP/ HNPCC/MYH syndromes.

Patient care

Bedside/clinic care (evaluated by oral exam)

1. Describe the medical management of acute terminal ileitis or ulcerative colitis.
2. List the indications for operative management of Crohn's disease or ulcerative colitis.
3. Name the operations for ulcerative pancolitis, Crohn's terminal ileal disease, multiple Crohn's strictures, and a Crohn's rectovaginal fistula.
4. Compare the staging for anal, rectal, and colon cancer.
5. List the indications for screening or diagnostic colonoscopy.
6. Describe the intervals for surveillance colonoscopy after a normal exam, a small adenoma, a large villous adenoma, multiple (>3) adenomas, and after colonic resection for cancer.

7. Describe the management of enterocutaneous fistulas, both high and low output.

Technical skills (evaluated by faculty on performance rating form)

1. Demonstrate a lysis of adhesions without enterotomy.
2. Perform a small bowel resection.
3. Perform a strictureplasty.
4. Mobilize the hepatic or splenic flexure.
5. Securely ligate the ileocolic or inferior mesenteric vessels, when appropriate.
6. Identify the left ureter prior to ligation of the IMA.
7. Perform a diagnostic colonoscopy by either the one or two-person technique.
8. Perform a rigid proctosigmoidoscopy.

Professionalism (360 evaluation and oral exam)

1. Communicate with the primary team re: colorectal recommendations.
2. Describe how you would obtain consent for a colectomy for cancer in a demented patient.

Interpersonal and communication skills (360 evaluation and oral exam)

1. Compassionately, but accurately give bad news to family members after an adverse event.
2. List the risks for small bowel resection, right hemicolectomy, and sigmoid colectomy.

Practice-based learning (oral exam)

1. Describe ways to prevent postop myocardial infarction, pulmonary embolism, pneumonia, and urinary infection.
2. Describe ways to prevent postop wound infection.

Systems-based practice (oral exam)

1. Contrast the roles of medical oncology and radiation oncology in the management of anal, rectal, and colon cancer.
2. Describe a multidisciplinary approach to ulcerative colitis and crohn's disease.

PGY-5 (Chief Resident) Objectives

Medical Knowledge (evaluated by oral exam)

1. Describe the nerves, lymphatics, vascular supply, and nearby genitourinary structures that may be injured during proctectomy.
2. List the indications for a subtotal colectomy or proctocolectomy in familial colorectal cancer syndromes.
3. List the indication for a restorative proctocolectomy in ulcerative colitis and contrast that with Crohn's colitis.
4. Give the indications for temporary diverting ileostomy and when you would take it down.
5. Describe the pathophysiology of surgically-correctable constipation and contrast that with obstructed defecation and short-segment Hirschsprung's.
6. Describe the anatomy of the anal sphincter.

7. Contrast the workup of constipation and fecal incontinence.
8. Describe the anatomy and pathophysiology of rectal prolapse.
9. Contrast the advantages of a double-stapled vs. handsewn coloanal anastomosis.
10. Describe the indications of a straight coloanal anastomosis, coloplasty, and colonic J pouch.
11. Contrast the different dimensions of an ileal and colonic J pouch.
12. Give the indications for a rectal mucosectomy.
13. Give the indications for an intersphincteric proctectomy.

Patient Care

Bedside care (evaluated by oral exam)

1. Describe your algorithm was evaluating anastomotic leak in a small bowel resection, a sigmoid colectomy, an ileorectal anastomosis, or a coloanal anastomosis.
2. Describe the indication to operate for C. diff colitis.
3. Describe your approach to a prolonged postop ileus.

Technical skills (evaluated by faculty on performance rating form)

1. Perform an open restorative proctocolectomy.
2. Perform an open subtotal colectomy.
3. Perform an overlapping anal sphincteroplasty.
4. Perform a double-staple anastomosis.
5. Perform a handsewn anastomosis.
6. Construct a colonic J pouch.
7. Construct an ileal J pouch.
8. Describe lengthening procedures to enable an ileal J pouch to reach the anus.

Professionalism (360 evaluation)

1. Model culturally sensitive care for your junior residents.
2. Resolve disputes between nursing and junior residents.

Interpersonal and Communication Skills (360 evaluation).

1. Speak with patient families after the operation.
2. Counsel patients and their families after adverse events.
3. Formulate daily patient management plans and delegate as appropriate.

Practice-based learning (evaluated by faculty on performance rating form)

1. Present at M&M, indicating how to mitigate the consequences of adverse events and how to present them in the future.
2. Search the literature for new ways to avoid adverse perioperative events.

Systems-based practice (evaluated by 360 and oral exam)

1. Coordinate consultant care for ward and ICU patients.
2. Propose how socioeconomic/insurance constraints affect a patient requiring postop TPN/IV abx.

Suggested Readings

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Green Surgery: Bariatric Surgery Goals

PGY-1 (Intern) Goals

Medical Knowledge

1. Understand basic bariatric terminology, including BMI, EWL, and roux-limb anatomy.
2. Understand the indications for bariatric surgery.
3. Be familiar with the common co-morbidities associated with morbid obesity.
4. Understand the anatomy & mechanism of action of the commonly used bariatric operations.

Patient Care

Bedside/Clinic Care

1. Know common post-operative complications that occur in bariatric patients & how to recognize them.
2. Know how to assess nutritional and psychological status of bariatric patients post-operatively in the outpatient setting.

Technical Skills

1. Learn the techniques of using the electrocautery, suturing & tying in surgery.

Systems-Based Practice

1. Understand the multidisciplinary evaluation necessary to assess operative risk of bariatric patients.
2. Understand and use the pre & postoperative bariatric pathways.

PGY-3 (Junior Resident) Goals

All of PGY-1 plus

Medical Knowledge

1. Understand the advantages & disadvantages of the commonly performed bariatric procedures with regards to metabolism and nutrition.

Patient Care

2. Understand the preoperative assessment of morbidly obese individuals undergoing bariatric surgery.
3. Know how to treat the common post-operative complications occurring in bariatric patients including pulmonary embolism, atrial fibrillation, wound infection, dehiscence, congestive heart failure, pneumonia, and sepsis.

Technical Skills

1. Develop proficiency in attaining central venous access for morbidly obese individuals.
2. Understand principles & techniques of performing panniculectomy, abdominal wall hernias, and open bariatric procedures.

Professionalism

3. Understand how to counsel patients regarding risks, benefits, and alternative to surgery for obesity.

PGY-5 (Chief Resident) Goals

All intern and junior resident goals as well as these Chief Resident specific goals.

Medical Knowledge

1. Understand anatomical differences in the Roux-en-Y gastric bypass, including length of common channel, length of Roux limb, antecolic vs retrocolic & their consequences of alterations in these limb lengths.
2. Understand the detailed anatomy of internal hernias associated with gastric bypass.
3. Understand the basic anatomy and histology of the gastric pouch in a gastric bypass and its impact on post-operative outcomes and complications.
4. Understand the basic mechanism of action, results, and complications of other past and current bariatric operations, including the JIBP, VBG, BPD with DS, sleeve gastrectomy, and LapBand.
5. Understand the molecular effects of obesity on inflammation.
6. Understand the mechanisms of resolution of diabetes after gastric bypass.
7. Be able to read and critically assess the bariatric literature.

Patient Care

Bedside/Clinic Care

1. Know how to evaluate & recommend treatment for failures and complications of bariatric surgery.

Technical Skill

1. Perform the commonly used open bariatric procedures.

Practice-Based Learning

2. Be able to present & discuss complications of bariatric surgery at Morbidity & Mortality Conference, including causes and prevention.

PGY-1 (Intern) Objectives

Medical Knowledge (evaluated by oral exam)

1. Describe the demographics of obesity in the US currently, including prevalence and frequency of bariatric surgery.
2. Define the terms BMI and EWL.
3. Describe indications for bariatric surgery.
4. Describe the primary co-morbidities associated with morbid obesity and the responses of these co-morbidities to the primary bariatric operations,
5. Describe the anatomy, basic surgical techniques, and primary mechanisms of weight loss for each of the primary bariatric operations.
6. Describe the detailed vitamin and mineral supplement requirements of each of the three primary bariatric operations, the normal (pre-operative, native anatomy) absorption mechanisms and the effect of the anatomic alterations associated with each of the three primary bariatric operations on vitamin and mineral absorption.

Patient Care

Bedside/Clinic Care (evaluated by oral exam)

1. Describe the common postoperative complications that occur in bariatric patients, their frequency, and appropriate diagnostic evaluation and treatment.

Technical Skills (evaluated by faculty on performance rating form)

1. Demonstrate proper knot-tying, suturing, and use of the cautery in the operating room.

Systems-Based Practice (evaluated by oral exam and 360 degree evaluation by nurses)

1. Describe the pathologic findings in the cardiac, pulmonary, and renal systems of obese patients and the laboratory studies necessary to evaluate the severity of these conditions.
2. Demonstrate the ability to use the bariatric pathways.

PGY-3 (Junior Resident) Objectives

Medical Knowledge (evaluated by oral exam)

1. Describe the primary peri-operative complications associated with each of the three primary bariatric operations, and their frequency, and appropriate diagnostic evaluation and treatment.
2. Describe the late complications associated with each of the three primary bariatric operations, and their frequency, and appropriate diagnostic evaluation and treatment.
3. Describe the issues that factor into choice of bariatric operation, and provide a detailed list of advantages and disadvantages of the three primary bariatric operations.
4. Describe the detailed nomenclature of the Roux limb, using both standard and bariatric nomenclatures. Describe the absorption of nutrients (carbs, fats, protein) in each limb, and the effects of lengthening or shortening each limb on nutrient absorption.

5. Describe standard management of the gallbladder in bariatric surgery, and the data supporting this management strategy.

Patient Care (evaluated by oral exam)

Bedside/Clinic Care

1. Describe the preoperative assessment of morbidly obese individuals undergoing bariatric surgery.
2. Given a patient scenario, recognize the common postoperative complications of bariatric operations and describe their treatment.
3. Describe common dynamics operant in the families of obese individuals.

Technical Skills (evaluated by faculty on performance rating form)

1. Demonstrate ability to perform central venous line without complication in a morbidly obese individual.
2. Demonstrate satisfactory performance of a panniculectomy and abdominal wall hernia repair.

Professionalism (evaluated by oral exam)

1. Demonstrate how to obtain informed consent for a bariatric procedure.

PGY-5 (Chief Resident) Objectives

Medical Knowledge (evaluated by oral exam)

1. Describe rationale for choice of biliary, roux, and common limb lengths and position (length of common channel or Roux limb, antecolic vs. retrocolic, ante vs retro-gastric) in Roux en-Y gastric bypass
2. Describe the histologic and tensile anatomy of the gastric pouch, including parietal cell and fundus anatomy, and the impact of these factors on post-operative weight loss and complications.
3. Describe the anatomy and nomenclature of all potential internal hernias associated with gastric bypass anatomy.
4. Describe the primary mechanisms of obesity and the primary evidence supporting a genetic basis for obesity.
5. Describe the mechanisms at work in the resolution of diabetes after gastric bypass.
6. Describe the anatomy, mechanisms of weight loss, complications, patterns of failure, and reasons for waning interest in VBG and JIBP.
7. Describe the roles of alternative bariatric procedures, including sleeve gastrectomy, long-limb gastric bypass, and BPD without DS, in modern bariatric surgery.
8. Briefly describe the evidence supporting the presence of an underlying state of systemic inflammation in obesity.

Patient Care

Bedside/Clinic Care (evaluated by oral exam)

1. Describe the differential diagnosis and appropriate diagnostic evaluation and treatment plan for the bariatric patient with poor weight loss.

2. Describe methods of evaluate for other reasons for failures and complications of bariatric surgery including malnutrition, excessive weight loss, vomiting, acute abdominal pain, bowel obstruction.

Technical Skill (evaluated by faculty on performance rating form)

1. Demonstrate satisfactory performance of open Roux-en-Y gastric bypass and/or duodenal switch.

Practice-Based Learning (evaluated by faculty rating performance)

1. Demonstrate the ability to present a complication at Morbidity & Mortality Conference in a satisfactory fashion as judged by faculty evaluators.

Evaluation Methods:

(see also year-specific and general objectives)

Green surgery performance evaluations include the following:

1. Faculty will complete the comprehensive resident evaluation for each resident.
2. Nurses, ward clerks and case managers will complete the 360 degree evaluation for each resident online via an email in response to a prompt one week before the end of the rotation.
3. Faculty will conduct a formative procedure-specific performance evaluation for each resident at the mid-portion of the evaluation and provide the resident with specific feedback and suggestions for improvement. During the last week of the course another evaluation will be conducted during surgery and submitted online for the residents permanent file. Deficiencies in resident performance will be communicated to the program director so that remedial skills lab training can be conducted.
4. All residents will participate in an oral examination during the last week of their rotation that will test them on year-specific knowledge and care objectives. A passing grade must be achieved on this exam to pass the rotation. A failing grade must be remediated by repeating the exam within six months. Repeat failure will result in probationary status and risk of needing to extend the residency.

Green Surgery: Bariatric Surgery Recommended Reading

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