

BASIC SCIENCE OBJECTIVES

At the end of the Colorectal Surgery Residency the resident should be able to:

1. Describe the embryology of the small intestine, colon, rectum, and anus.
2. Describe the anatomy of the small intestine, colon, rectum and anus.
3. Describe the physiology of the small intestine, colon, rectum and anus.
4. Demonstrate understanding of the management of fluids and electrolytes in patients undergoing surgery of the intestine, colon, rectum, and anus.
5. Demonstrate understanding of applied pharmacology related to treatment of problems in the small intestine, colon, rectum and anus.
6. Demonstrate understanding of bacteriology related to the small intestine, colon, rectum and anus..
7. Demonstrate understanding of nutritional considerations in the management of diseases of the small intestine, colon, and rectum.

CLINICAL OBJECTIVES

At the end of the Colorectal Surgery Residency the resident should be able to demonstrate proficiency in:

1. Evaluating by clinical history and physical examination and prescribing treatment for patients with disorders of the lower gastrointestinal tract and anus
2. Evaluating and interpreting imaging studies of the bowel, including plain and contrast x-ray's, CT and MRI scans, ultrasound studies, angiography and radionuclide scintigraphy, defecography and PET scans.
3. Planning and performing patient preparation prior to surgery and follow-up care of patients after surgery
4. Performing diagnostic and therapeutic endoscopies including anoscopy, rigid and flexible sigmoidoscopy, colonoscopy, polypectomy and stent placement
5. Performing anorectal surgery including common office procedures such as sclerotherapy, banding of hemorrhoids, excision of thromboses and drainage of abscesses.
6. Performing colonic and small bowel surgery using open and minimally invasive techniques.
7. Performing and evaluating ano-rectal physiology testing including defecography, intestinal transit studies, intra-rectal ultrasound, anal manometry and biofeedback.
8. Recognizing and managing complications of colorectal diseases and surgery.

OBJECTIVES IN CLINICAL APPLICATION

DISEASE MANAGEMENT

The Colorectal resident will learn and understand basic science and clinical aspects of the following disorders:

Absorptive Disorders

- Short Bowel
- Choleric Diarrhea
- Extra colonic diarrhea
- Sprue
- Irradiation

Anorectal Disorders

- Abscess** - acute (simple/complex)
 - skin infections
- Anal Complications in the immuno-suppressed patient
- Fistula-in-ano (Simple/Complex)
- Rectovaginal Fistula

Vascular Disease

- Hemorrhoidal Disease
- Rectal Varices

Veneral Disease

- Condylomata acuminata
- Gonorrhea
- Syphilis

Lymphogranuloma Venereum

AIDS – HIV

Herpes

Sphincter Disorders - Incontinence

Idiopathic

Traumatic

Anal Stenosis

Miscellaneous

Pilonidal Disease

Procidentia

Pruritus

Trauma

- abdominal

- anorectal

Foreign Bodies

Congenital Malformation of the Colon

Atresia and Stenosis of the Colon

Imperforate Anus

Hirschsprung's Disease

Diverticular Disease

Diverticulitis

Abscesses

Fistulas

Obstruction

Bleeding

Fistulas

Small bowel

Large Bowel

Ano-rectal

Functional Disturbance

Irritable Colon

Chronic Constipation

Infectious Colitides

Bacterial / Mycotic

Salmonella

Brucella

Chlamydia

Shigella

Proteus

Campylobacter

Yersinia

Tuberculosis

Actinomycosis

Viral

CMV

HSV

Pseudomembraneous colitis - C-difficile

Parasitic Infections

Amebiasis

Balantidiasis

Trichuriasis

Enterobiasis

Ascariasis

Strongyloidiasis

Schistosomiasis

Giardiasis

Inflammatory Bowel Disease

Mucosal Ulcerative Colitis

Proctosigmoiditis vs. Pancolitis

Acute Complications

Chronic Complications

Crohn's Disease

Small bowel

Large Bowel

Anal

Neoplastic Disease

Benign

Adenomas

Lymphoid hyperplasia

Lipoma

Leiomyoma

Lymphangioma

Carcinoid

Small bowel

Appendiceal

Large Bowel

Rectal

Metastatic

Epithelial

Squamous / Basaloid

Bowen's Disease

Paget's Disease

Mucoepidermoid

Anal Gland

Melanoma

Lymphomas

Malignant

Primary (non-obstructive/obstructive)

Secondary

Polypoid

Polyps - spontaneous

Polyposis syndromes

Retrorectal Tumors

Sarcomas

Obstruction

Mechanical

Volvulus

Pseudo-obstruction

Vascular Disease

Occlusive disease (small/large bowel)

- arterial
- venous
- ischemic colitis

Arterio-venous

- malformation - congenital and acquired

OBJECTIVES IN CLINICAL APPLICATION

PROCEDURES

General Procedures

Hyperalimentation

Total parenteral nutrition

Element and special diets

Stomal Therapy

Chemotherapy - general concepts and current protocols

Radiation therapy - general concepts including: dose, time, fields.

Ano-rectal Procedures

Incision and drainage of abscess

Excision of thrombosed hemorrhoid

Sclerosis of internal hemorrhoids

Elastic ligation of internal hemorrhoids

Hemorrhoidectomy

Excision hypertrophied anal papilla

Anal fistulotomy (simple/complex)

Placement of setons

Anal sphincterotomy with or without fissurectomy

Botox therapy for fissures

Anoplasty (plastic operation for stricture)

Excision - Pilonidal cyst

Excision - Hidradenitis suppurativa

Treatment - condyloma acuminata

Transanal excision rectal tumors

Sphincter reconstruction – anterior overlapping

Sphincter reconstruction – post-anal repair
Ano-Vaginal Fistula repair
Rectal-Vaginal Fistula repair
Procedures for prolapse and hemorrhoids (PPH)

Endoscopic Procedures

Colonoscopic examination with polypectomy and biopsy and control of bleeding
Decompression of large bowel obstruction with stents
Decompression of volvulus
Proctosigmoidoscopy with rigid/flexible

Operative Procedures (Open and Laparoscopic)

Right hemicolectomy with anastomosis
Left hemicolectomy with anastomosis
Sigmoid colectomy with colorectal anastomosis
Proctocolectomy with ileostomy
Proctocolectomy with ileoanal anastomosis, pelvic pouch procedure
Colectomy with ileorectal anastomosis
Subtotal colectomy with ileostomy
Anterior proctosigmoidectomy with colorectal anastomosis
(Stapled and Hand sewn)
Hartman's procedures
Abdominal-perineal proctosigmoidectomy - end colostomy
Pull-through coloanal anastomosis
Small bowel resection with anastomosis
Construction ileostomy (conventional/continent)
Construction colostomy
Colostomy construction, end/diverting
Colostomy closure

Colostomy relocation
Colostomy revision
Ileostomy, construction (end, loop, continent)
Ileostomy revision
Parastomal hernia repair
Lysis adhesions (bowel obstruction)
Procedures for procidentia
Cecostomy

Miscellaneous Procedures

Local Treatment of rectal cancer
Liver Biopsy - partial hepatectomy
Total abdominal hysterectomy/bilateral salpingo-oophorectomy
Colovaginal fistula
Colovesical fistulas

Interpersonal and Communication Skills:

Goal:

Residents will demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates.

Objectives:

The resident will demonstrate effective communication skills with patients and families across a broad range of socioeconomic and cultural backgrounds. They will communicate effectively with physicians, other health professionals and health related agencies. The resident will act in a collegial consultative role to other physicians and health professionals. The resident will demonstrate effective teaching skills with other residents and students.

Teaching Methods:

1. The faculty as role models and mentors
2. Teaching residents to teach review course
3. Communication and interpersonal skills course on the GME toolkit site

Assessment Methods:

- 1 Global evaluation by faculty
- 2 360 evaluations (patients, nurses, office staff, residents, students)
- 3 GME Today Assessment.

Educational Resources:

1. Teaching Residents to teach review course; GME office
2. Communication and interpersonal skills course; GME toolkit site

Professionalism:

Goal:

Residents will behave in a professional manor and adhere to ethical principles. The resident will be reliable, honest, respectful, compassionate and altruistic.

Objectives

The resident will demonstrate respect for patients and their patient's families. They will exhibit respect for their peers, colleagues and other healthcare professionals. They will demonstrate sensitivity to diversity as pertains to race, color, religion and cultural background. They will complete medical records and consultations in a timely fashion. They will demonstrate altruism by doing the right thing for the right reason regardless of self cost or sacrifice

Teaching Methods:

1. Faculty as one on one role models and mentors
2. DVD on professionalism from Jefferson Medical College Clinical Skills Center (scenarios on impaired physician; abusive resident or attending; altering medical record; non- altruistic behavior
3. Review and discuss articles on professionalism(see list below) with PD.

Assessment Methods:

Professionalism will be evaluated on a continual basis throughout the year. The following methods will be used:

1. Global evaluation by faculty
2. 360 evaluations (office staff, nurses, students, residents and patients.)
3. Evaluation of discussions of professionalism articles

Educational Resources:

The following list are articles (medical and lay literature that will be used):

1. "In the Hospital, a Degrading Shift From Person to Patient", Benedict Carey, New York Times, August 16, 2005.
2. "Sick and Scared, and Waiting, Waiting, Waiting", Gina Kolata, New York Times, August 20, 2005.
3. "Approach to Routine Interactions with Industry: A Primer for Residents", V. Arora, J Schneider, W Boden, H Humphrey, Semin Med Pract 2005;8: 55-63

4. "Dismembering the Ethical Physician", Genuis S; Postgrad Med J 2006; 82:233-238.
5. "Doctors' Delicate Balance in Keeping Hope Alive", New York Times, Jan Hoffman, December 24, 2005
6. "Learning Words They Rarely Teach in Medical School: 'I'm Sorry'", Richard Friedman, July 26, 2005.
7. "Arrogant, Abusive and Disruptive—and a Doctor." NY Times, December 2, 2008
8. "What to Wear Today? Effect of Doctors Attire on the Trust and Confidence of Patients" Am J Med, 118, p1279-86

Practice-based Learning and Improvement:

Goal:

Residents will demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence and to continuously improve patient care and safety based on constant self-evaluation of outcomes and life long learning.

Objectives:

The resident will learn to identify strengths, deficiencies, and limits to his/her knowledge and expertise and then will implement a plan to correct deficiencies. Residents will locate, appraise and assimilate evidence from scientific studies related to their patients' health problems. The resident will analyze their practice experience and perform practice based improvement activities using systematic methodology. The resident will master information technology resources to manage information, access on-line medical information and support their own education. Residents will participate in the education of patients, families, students, residents and other health professionals. Residents will create and maintain a portfolio of projects.

Teaching Methods:

1. CARSITE will be taken by the resident early in the academic year in conjunction with other colorectal residencies.
2. Weekly M&M conference preparation and presentation using Jefferson Department of Surgery Template
3. Journal Club with faculty
4. Design and complete a practice improvement project
5. Review NSQIP reports for Colorectal Division
6. ACS Practice Based Learning System Case Log
7. Patient Safety/Risk Management Education Modules: Disclosure of Serious Events, Proactive Documentation and Learning From Closed Cases. (jeffline.jefferson.edu/jeffcme/)
8. CARSEP Question Review

Assessment methods:

1. Review of CARSITE and notification of score in relation to other programs
2. Discussion by Department of Surgery faculty at M&M conference
3. Global evaluation forms
4. Critique during journal club
5. Evaluation of practice improvement project by faculty
6. Review of resident portfolio

Educational Resources:

1. CARSEP from ASCRS
2. Journal articles to be chosen by resident each year
3. Patient Safety/Risk Management Education Modules: Disclosure of Serious Events, Proactive Documentation and Learning From Closed Cases.
(jeffline.jefferson.edu/jeffcme/)

System-based Practice:

Goal:

The resident will demonstrate an awareness of and responsiveness to the larger system of health care, as well as the ability to call effectively on resources in the system to provide optimal healthcare.

Objectives:

The resident will learn to coordinate patient care within the Jefferson Healthcare system as well as related agencies necessary for the provision of optimal patient care.

The resident will incorporate cost awareness and risk-benefit analysis in patient care.

The importance of a team approach will be learned in all aspects of practice and patient care. The resident will participate in the identification of systems errors and the implementation of appropriate solutions.

Teaching Methods:

1. Faculty role models and mentors (division and department.)
2. Morbidity and mortality conference- systems and safety issues discussed
3. Meeting with office manager and billing department to discuss our interactions with insurance carriers as well as our billing practices.
4. GME Today Module on System Based Practice

Assessment Methods:

1. Global evaluation
2. M&M presentations and feedback
3. 360 evaluation
4. GME Today self assessment test

Educational Resources:

1. CPT book (current year)
2. GME Today Module on System Based Practice