



Toronto Western Hospital, University Health Network
General Surgery Rotation Specific Educational Objectives

Introduction:

The Division of General Surgery at the University Health Network encompasses three sites; Toronto General Hospital, Toronto Western Hospital and the Princess Margaret Hospital.

Details of site and subspecialty specific rounds are found in the *Residents' Guide to the Division of General Surgery*. Quality of Care Rounds held every week. Additionally, Senior Residents from all sites meet weekly with the Division Head to discuss all mortality, morbidity issues and any other patient care difficulties or concerns. Cases are then selected for formal presentation at Quality of Care Rounds. These rounds are well attended, multidisciplinary and have proven to be an exceptional venue for educational exchange.

At the Toronto Western site, surgical exposure centers on Minimally Invasive Surgery and Gastrointestinal Oncology. Specifically, residents receive multidisciplinary experience in benign foregut disease (i.e. achalasia, GERD, paraesophageal hernias, etc.), bariatric surgery, colorectal cancer, and gastric and small bowel malignancies. In addition, residents gain a broad exposure to common general surgical emergencies and will gain an understanding of the role of MIS in acute surgical care. Residents are encouraged to participate in all facets of care extending from the preoperative ambulatory clinics, multidisciplinary rounds/conferences, intra-operative decision-making and surgical technique, and post-operative care.

Resident Evaluation

Several members of the multidisciplinary team evaluate residents throughout their rotations. Residents meet with the Resident Site Coordinator, at the beginning, middle and end of their rotation, to review concerns, educational progress, and rotation objectives. Discussion about each resident is solicited at monthly divisional meetings. In addition, feedback is sought from Nurse Managers and resident peers.

EDUCATIONAL OBJECTIVES FOR GENERAL SURGERY RESIDENT ON THE GENERAL SURGERY SERVICE at TWH

General Aims

Trainees will gain a familiarity and level of proficiency in the following:

1. The recognition, natural history, and treatment of patients treated in a University hospital practice
2. The pathophysiology of general surgical conditions, and the response of the patient to surgery
3. Resuscitation and emergency treatment for the unstable patient with surgical problems
4. The multidisciplinary pre-operative evaluation of patients with morbid obesity being considered for bariatric surgery
5. The multidisciplinary and multi-modal care given to patients with colorectal cancer
6. CANMeds competencies within the context of a general surgical environment

A. Communicator

PGY1-2

1. Listens effectively
2. Summarizes patients' condition quickly and accurately
3. Communicates effectively and empathetically with his/her patients and their families
4. Discusses treatment plans with the charge nurse on the team
5. Communicate effectively during teaching rounds and tumour boards
6. Writes or dictates timely meaningful clinical notes

PGY3-5

1. Conducts effective family meetings
2. Writes or dictates timely accurate OR notes
3. Communicates treatment plans in an understandable manner to team members
4. Communicates effectively with patients or families with ethno-cultural differences, or in the setting of anger or confusion
5. Communicates with a calm and effective demeanor in the setting of emergency surgery, complications or unexpected events

B. Collaborator

PGY1-2

1. Demonstrates respects for all staff members
2. Contributes effectively to interdisciplinary team activities

PGY3-5

1. Effectively utilizes team resources in the management of complex patients
2. Consult effectively with other physicians and health care professionals

C. Manager

PGY1-2

1. Balance patient care, personal learning needs, and outside activities
2. Participates in discharge planning rounds (KARDEX) and facilitates the timely discharge of patients
3. Demonstrate an up to date personal log of procedures

PGY3-5

1. Allocates human resources effectively, accounting for the learning and clinical needs of trainees and generates fair and equitable call schedules
2. Utilizes clinical resources effectively
3. Prioritizes tasks appropriately and demonstrates effective delegation
4. Demonstrate an up to date personal log of procedures

D. Health Advocate

PGY1-2

1. Counsels patients about the important determinants of health
2. Contribute to health-maintenance for patients

PGY3-5

1. Demonstrates advocacy where appropriate
2. Counsels patients about the role of screening for cancers relevant to General Surgery

E. Scholar

PGY1-2

1. Demonstrates an effective personal learning strategy
2. Attends the teaching rounds of the Division

PGY3-5

1. Critically appraises medical information and applies to clinical practice
2. Contributes effectively to the learning of others
3. Participates in the teaching rounds of the Division

F. Professional

PGY1-5

1. Deliver the highest quality care with integrity, honesty and compassion
2. Demonstrate an understanding of the surgical consent, confidentiality, and refusal of treatment
3. Demonstrates respect for the professional and Hospital Code of Conduct
4. Demonstrates sensitivity to age, gender, culture and ethnicity
5. Recognizes and responds appropriately to his/her own limitations of professional competence and accepts feedback appropriately
6. Demonstrates the ability to recognize, analyze and manage unprofessional behaviours

G. Medical Expert

Clinical Skills

PGY1 and 2 Residents should able to

1. Take a relevant history
2. Perform an acceptable physical exam concentrating on the relevant areas
3. Arrive at an appropriate differential diagnosis
4. Order appropriate laboratory, radiological and other diagnostic procedures, demonstrating knowledge in the interpretation of these investigations
5. Provide care for patients without complications in the pre and post-operative period,
6. Provide a plan for patient discharge and follow-up

PGY3-5 residents should be able to:

7. Arrive at an acceptable plan of management, demonstrating knowledge in operative and non-

- operative treatment of the disease process
8. Manage patients in the ambulatory setting, demonstrating knowledge of common office techniques and procedures.
 9. Recognize, develop and implement appropriate care plans for patient who develop complications after surgery

Cognitive Knowledge

The resident will be expected to demonstrate core knowledge of MIS Surgery, including that relevant to:

- benign foregut disease
- motility disorders
- GERD
- bariatric surgery
- surgical oncology, primarily related to colorectal cancer

Residents will develop proficiency in the workup, diagnosis and treatment of following aspects of *pre – and post-operative care*

- Metabolic disturbances and response to Surgery - Fluid and electrolyte disorders and Acid base disturbances
- Shock - Septic shock, hypovolemic shock, obstructive shock, cardiogenic shock
- Complications of Surgery - Wound infection, dehiscence, evisceration, venous thromboembolism, pneumonia, bladder retention, delirium, organ failure
- Surgical Nutrition – Malnutrition, obesity, specific nutritional deficiencies, TPN
- Blood Products - Transfusion reactions

Residents will develop proficiency in the workup, diagnosis, and treatment of following *Disease processes*; their depth of knowledge in these areas will be level dependent. For example a PGY1 resident will be able to make the diagnosis of appendicitis and execute a treatment plan, including surgery and discharge planning in an uncomplicated patient.

- Appendicitis
- Intestinal obstruction
- Biliary Tract Disease
- Abdominal wall hernias
- Diverticulitis
- Morbid obesity
- Colorectal cancer
- Gastric cancer
- Benign foregut disease

Technical Skills

During the rotation, the resident will assist with, operate under supervision or independently, depending on case complexity, level of training and patient comorbidity. In the operating room, the trainee is expected to develop the following abilities: to anticipate surgical maneuvers, to handle tissues gently, to make reasonable suggestions and ask intelligent questions, and to contribute to a positive operating room atmosphere.

PGY1-3 Residents should be able to complete the following operations with minimal assistance and some guidance.

- Arterial puncture
- Venipuncture
- Foley catheter insertion
- Esophago-gastro-duodenoscopy
- Rigid sigmoidoscopy
- Flexible sigmoidoscopy
- Open and closing the fascia in a stable patient (PGY1-2)
- Incision & drainage subcutaneous abscess
- Entero-enterostomy
- Resection and anastomosis of small bowel
- Mobilization of the right colon
- Lysis of adhesions in an uncomplicated and stable patient
- Repair inguinal/femoral/umbilical hernia
- Closure loop enterostomy in an uncomplicated patient
- Gastro-enterostomy
- Laparoscopic cholecystectomy for uncomplicated biliary colic (elective) (PGY2-3)

PGY3-5 Residents should be able to complete the following with minimal assistance and some guidance

- Colonoscopy
- Laparoscopic and Open Resection and anastomosis of colon
- Laparoscopic and Open Low anterior resection (PGY4-5)
- Proctectomy (PGY5)
- Lysis of adhesions
- Drainage appendiceal abscess
- Laparotomy for source control in a bleeding patient
- Laparotomy for source control in a septic patient
- Laparotomy for intestinal obstruction
- Repair massive ventral hernia
- Laparoscopic nissen fundoplication (PGY4-5)
- Heller myotomy (PGY4-5)
- Laparoscopic or open gastrectomy for cancer (PGY4-5)
- Laparoscopic cholecystectomy for acute cholecystitis (PGY4-5)
- CBD exploration (PGY4-5)
- Laparoscopic splenectomy
- Laparoscopic adrenalectomy
- Laparoscopic Roux-en-Y Gastric Bypass (PGY5)
- Laparoscopic Sleeve Gastrectomy

Summary

Our goal is to afford residents the best possible opportunity to develop the knowledge and the skills necessary to deliver surgical care to patients with benign foregut disease, bariatric surgery, surgical oncology (with an emphasis on colorectal cancer), and acute surgical emergencies. We strive to make this as relevant as possible and provide the necessary foundation for all aspects of general surgery practice. Overall, residents will gain exposure to advanced minimally invasive surgery and learn its appropriate indications, limitations, and role. Our focus is evidence-based care within a collegial academic educational environment. We are committed to provide an outstanding rotation to help meet the specific and individualized learning objectives of our trainees.