GENERAL SURGERY  
PGY-1  
(Two 1-Month Rotations)

Description of Rotation or Educational Experience

This General Surgery rotation intends to provide Family Medicine residents with essential experience in caring patients of both genders and all ages with common surgical problems. Family physicians are often required to evaluate and manage conditions that ultimately require operative intervention. Since many of these conditions can be safely treated in the family physician’s office, it is essential for the family physician to develop surgical skills such as preoperative and postoperative care, basic surgical principles, asepsis, handling of tissue, and wound care. It is also important for the family physician to identify those surgical conditions and emergencies best cared for by the surgical specialist, to appropriately and timely refer those patients, and to competently assist in the operating room.

This rotation is designed to enable residents to achieve competency in the diagnosis and management of a wide variety of common surgical problems typically cared by family physicians. The structure of the experience entails two one-month rotations on the General Surgery services at Mount Carmel St. Ann’s during the PGY-1 year, with a focus on surgical technique and preoperative, operative, and postoperative care in the hospital setting, and exposure to common ambulatory surgical procedures.

Upon completion of the two 1-month rotations, residents should be able to:

1. Demonstrate a clear understanding of basic principles of surgical diagnosis, preoperative assessment, intraoperative care, and postoperative care.
2. Develop a scholarly approach to each patient using evidence-based medicine principles.
3. Develop the necessary knowledge, skills and attitudes to recognize, manage, and appropriately refer when necessary those surgical conditions commonly encountered in family medicine.
4. Develop familiarity with the indications for, risks, benefits, and methods of performance of surgical procedures essential to family medicine.
5. Recognize the limits of one's abilities and know when to seek appropriate consultation from the surgical specialist.
6. Demonstrate skill in communicating with patients and families in the surgical setting.

Patient Care

Goal
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
**Competencies**
Residents are expected to:

1. Communicate effectively.
2. Demonstrate caring and respectful behaviors when interacting with patients and their families.
3. Gather essential and accurate information about patients.
4. Make informed decisions about diagnostic and therapeutic interventions.
5. Develop and carry out patient management plans.
6. Counsel and educate patients and their families.
7. Use information technology to support patient care decisions and patient education.
8. Perform all medical procedures considered essential to the specialty of Family Medicine.
9. Provide preventive health care consistent with the philosophy of health maintenance and disease prevention.
10. Work with health care professionals to provide patient-focused care.

**Objectives**
At the conclusion of the rotation, residents will be able to:

- Diagnose and manage common surgical disorders and surgical emergencies.
- Perform a thorough clinical assessment, including detailed history, appropriate physical examination, cost-effective laboratory and radiological evaluation, and broad differential diagnosis of key signs and symptoms as they relate to surgical problems.
- Demonstrate proficiency of wound management.
- Define these ethical and legal issues involved with surgery:
  - Informed consent
  - End-of-life issues
  - Quality of life
  - Organ donation
- Skillfully perform a preoperative assessment, and describe these major principles:
  - Surgical risk assessment, including identifying the risks of and precautions taken for certain co-morbidities such as cardiac (coronary artery disease, congestive heart failure, hypertension), pulmonary (COPD), and diabetes mellitus
  - Role of antibiotic prophylaxis for certain surgical procedures
  - Patient preparation for certain surgical procedures (e.g., NPO, bowel prep, etc.)
- Demonstrate the following principles of intraoperative care and surgical technique:
  - Basic principles of asepsis and sterile technique, including proper hand washing technique, gloving, and gowning.
  - Monitoring of patients during surgery.
  - Fluid management
  - Indications for and risks of administering blood products
Temperature control of patients undergoing surgery.
Use/handling of the most common instruments used in surgery.
Proficiency in serving as a first-assistant in surgery.
Proficiency at using local anesthesia.

Developmental familiarity with the indications for, risks, benefits, and methods of performance of surgical procedures essential to family medicine.

Develop the following psychomotor skills:
- Clinical breast exam
- Preoperative risk evaluation
- Intraoperative skills
  - Incision and dissection
  - Exposure and retraction
  - Hemostasis
  - Estimation of blood loss
  - Wound closure
    - Technique selection - ligature, staples, adhesive
    - Suture selection
    - Drains
    - Dressings
- Postoperative skills
  - Suture or staple removal and proper use of steri-strips
  - Dressing changes
  - Drain removal
- Venous and arterial access
  - Peripheral venous (IV) insertion
  - Central venous access/catheterization
  - Subclavian vein
  - Internal jugular
  - Femoral vein
- Arterial puncture for blood gas analysis, and accurate interpretation
- Peripheral arterial catheterization (line)
- First assist (if possible) or observe the following surgical procedures:
  - Appendectomy
  - Cholecystectomy
  - Breast biopsy and/or lumpectomy/mastectomy
  - Colectomy
  - Herniorrhaphy
  - Wound debridement
- Nasogastric or Dobhoff tube placement
- Nasogastric lavage
- Minor surgical techniques
  - Local and digital block anesthesia
  - Simple excision
- basic laceration repair and skin suturing
- incision and drainage of soft tissue abscess and cysts
- needle aspiration and needle biopsy
- foreign body removal
- minor burns
- cauterization and/or electrodesiccation
- punch biopsy
- wound debridement
- enucleation or excision of external thrombosed hemorrhoid
  - urethral catheterization
  - anoscopy
- Develop familiarity with the following psychomotor skills:
  - thoracentesis
  - paracentesis
  - thoracotomy
  - emergency cricothyroidotomy
  - chest tube insertion
- Appropriately order and accurately interpret the following tests.
  - diagnostic peritoneal lavage
  - diagnostic thoracentesis
  - common radiographs of the chest and abdomen (plain, CT, MRI)
- Demonstrate proficiency in postoperative care:
  - Provide routine postoperative care
    - Provide appropriate wound care.
    - Early patient mobilization.
    - Appropriately manage fluids and electrolytes in the postoperative patient.
    - Appropriately manage postoperative pain.
    - Perform various suctions and drains postoperatively.
    - Caring for patients with a colostomy or ileostomy (stoma care).
    - Nutrition in the postoperative patient.
    - Deep venous thrombosis (DVT) prophylaxis.
  - Recognize and appropriate manage common postoperative complications.
    - Fever - identify the major causes, using the 5 W’s mnemonic
      - Wind - atelectasis, pneumonia, pulmonary embolus
      - Water - dehydration, urinary tract infection
      - Wound - wound infection
      - Walk - deep venous thrombosis
      - Wonder drug - adverse drug reactions
    - Wound dehiscence, and healing by primary and secondary intention
    - Urinary problems - retention, oliguria
    - Hemorrhage or Shock
    - Pulmonary problems - pneumonia, atelectasis, respiratory
insufficiency, pulmonary embolus
- Fluid overload
- Transfusion reaction
- Thrombophlebitis (DVT)
- Ileus
- Infection

Medical Knowledge

Goal
Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care.

Competencies
- Clear understanding of the basic principles of surgical diagnosis, preoperative assessment, intra-operative care, and postoperative care.
- Sufficient knowledge of basic anatomy and physiology, and ability to discuss the impact of the aging process and pregnancy, as it relates to common surgical procedures.
- Ability to explain normal wound physiology and the healing process, including:
  - Proper wound care.
  - Identifying conditions that interfere with normal wound healing (e.g., malnutrition, hyperglycemia, immunosuppression, etc).
  - Outlining the approach to abnormal wound healing (e.g., keloid formation, etc.).
- Ability to discuss the role of anesthesia in surgery, including:
  - Various methods of anesthesia, the mechanism of action, dosage, interaction, toxicity, and adverse reactions of the more commonly used agents.
- Ability to discuss the role of ambulatory surgery and identify those conditions that can be safely done as an outpatient versus those requiring hospitalization, including:
  - List those patient characteristics that would preclude someone from undergoing outpatient surgery.
  - Discuss the guidelines of conscious sedation.

Objectives
By the end of the rotation the resident will have the knowledge to recognize, manage, and appropriately refer when necessary those surgical conditions commonly encountered in family medicine, specifically:
- Conditions that are surgical emergencies.
- Pathophysiology, presentation, initial evaluation, early stabilization, management and appropriate disposition of patients who have the following surgical conditions (including but not limited to):
- **acute trauma**
  - multisystem trauma
  - burn injuries - 1st, 2nd, and 3rd degree
  - gunshot wounds
  - stab wounds
  - lacerations
  - blunt trauma to the head, chest, abdomen and pelvis

- **abdominal conditions**
  - acute problems
    - acute lower GI bleed
    - acute pancreatitis
    - appendicitis
    - cholelithiasis, cholecystitis
    - intussusception
    - ischemic bowel disease
    - acute bowel obstruction
    - acute bowel perforation

  - other problems
    - esophageal problems
      - gastroesophageal reflux disease
      - esophageal varices
    - hernias
      - inguinal hernia
      - umbilical hernia
      - ventral hernia
      - incisional hernia
      - incarcerated hernia
    - inflammatory bowel disease
      - Crohn’s disease
      - ulcerative colitis
    - neoplasia
      - esophageal cancer
      - gastric cancer
      - pancreatic cancer
      - colorectal cancer
    - diverticulosis, diverticulitis
    - anal-rectal disease
      - hemorrhoids
      - anal fistula
      - anal fissure
      - perirectal abscess
      - adhesions

- **pulmonary problems**
  - solitary pulmonary nodule
  - lung cancer
  - pneumothorax
- **breast problems**
  - mastitis
  - breast abscess
  - breast lump
  - breast cancer
- **vascular problems**
  - coronary artery disease - stent vs. angioplasty vs. bypass
  - dissecting aortic aneurysm
  - abdominal aortic aneurysm
  - atherosclerotic peripheral vascular disease
    - carotid artery disease
    - intermittent claudication
  - varicose veins
  - venous insufficiency
- **skin problems**
  - abscess
  - lipoma
  - sebaceous cyst
  - pilonidal cyst
  - decubitus wound
  - other benign and malignant skin lesions

- Approach to the patient who presents with abdominal pain, and differentiate those conditions requiring immediate surgical intervention from those that can be managed expectantly from those that can be managed medically.
- Approach to the women who present with a breast lump/mass.
- Approach to the patients who present with acute gastrointestinal hemorrhage.
- Conditions in which organ transplant may be considered.

### Practice-Based Learning and Improvement

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

**Competencies**
Residents are expected to develop skills and habits to be able to:
- Identify and perform appropriate general surgery activities
- Incorporate formative evaluation feedback into daily practice.
- Locate, appraise and assimilate evidence from related general surgery literature and journal clubs related to patients’ health situation and daily practice.
- Use information technology to optimize learning.

**Objectives**
At the conclusion of this rotation the Family Medicine intern will be able to:
- Utilize evidence-based medicine to determine appropriate strategies for general
surgery.
- Understand the importance of patient education and demonstrate the ability to facilitate the learning of others.
- Analyze one's own practice for needed improvement

**Systems Based Practice**

**Goal**
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

**Competencies**
Residents are expected to:
- Work effectively in various health care delivery settings and systems relevant to surgical care
- Coordinate patient care within the health care system relevant to surgical care
- Incorporate considerations of cost awareness and risk-benefit analysis in patient care

**Objectives**
- Demonstrate the ability to work as part of a team with other physicians, nursing and ancillary staff to provide comprehensive care to the surgical patient.

**Professionalism**

**Goal**
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

**Competencies**
Residents are expected to demonstrate:
- Compassion, integrity, and respect for others
- Responsiveness to patient needs that supersedes self-interest
- Respect for patient privacy and autonomy
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

**Objectives**
By the end of the rotation, the resident will be able to:
- Demonstrate compassion and understanding to the diverse patient population while showing respect for the patient's privacy and autonomy at all times.
- Define these ethical and legal issues involved with surgery:
  - Informed consent
  - End-of-life issues
Interpersonal and Communication Skills

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

Competencies
Residents are expected to:
- Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds
- Communicate effectively with physicians, other health professionals, and health related agencies
- Work effectively as a member of leader of a health care team or other professional group
- Maintain comprehensive, timely, and legible medical records

Objectives
At the conclusion of the rotation, the residents will be able to:
- Discuss the importance of family physician and surgeon collaborating as partners in the evaluation of and decision making for the care of the surgical patient.
- Legibly and thoroughly document the findings, impression, and plan for each surgical patient, using the problem-oriented patient care system
- Identify the role of the surgeon and surgical subspecialists as consultants.
- Demonstrate ability to accurately and concisely present the findings to the surgical attendings.
- Demonstrate skill in communicating with patients and families in the surgical setting.
- Effectively and compassionately communicate with patients and their families, being sensitive to multicultural beliefs and habits.
- Demonstrate sensitivity to the patient’s and family’s concerns and anxieties regarding the potential need for surgical intervention.

Teaching Methods
Teaching methods will include clinical, real-time teaching, practice and supervision by Surgery attendings. The PGY-1 resident will be responsible for rounding on pre- and post-operative patients in the hospital as well as performing consultations in the ER and in the hospital under the supervision of the surgical attending. The resident will spend time in the operating room whenever possible. In addition, the resident will spend 1-2 half days per week seeing patients in the ambulatory setting with the surgical attending. Residents are responsible for the longitudinal care of continuity patients presenting with surgical issues in the FMC. Longitudinal learning experiences also include didactic
surgical lectures and surgical procedural workshops within our core curriculum lecture schedule.

**Administrative Information for the Surgery Rotations**

*Mount Carmel Family Medicine Residency Program*

Length: Two 4 week Rotations  
Status: Required  
PGY: 1

Responsibilities to the Department of Family Medicine during this rotation
- # of half-days each week in the FP clinic: 1

Responsibilities to Surgery during this rotation
- Rounds: daily, as determined by the attending
- Call required: as determined by Surgery schedule, to be not more often than once every third night, and one day out of seven away from clinical duties
- Presentations: as assigned by the surgery attendings

**Assessment Method (Residents)**

1. At the end of the rotation, the General Surgery attending surgeons on the service will provide an evaluation of the resident’s performance, using the evaluation form developed by the Family Medicine residency program. To successfully complete this rotation, the resident will demonstrate competence in all areas outlined in the curriculum. Cognitive competence must include not only familiarity with the factual aspects of General Surgery, but also the ability to integrate such factual knowledge into the daily practice of Family Medicine.

2. At the end of the rotation, the resident will perform a self-assessment, using the goals and objectives in the rotation description, to assess competency and to determine areas which still need further training and/or exposure.

3. The yearly Family Medicine in-training examination will also assess the cognitive aspects of General Surgery.

4. The resident will be required to complete two Hopkins Modules (one per month) related to General Surgery. The assigned modules are Cancer Screening (during month one) and Pre-Op Evaluation (during month two.)

**Assessment Method (Program Evaluation)**

1. The resident will evaluate the faculty and the General Surgery rotation upon its completion by using the evaluation form developed by the Family Medicine residency program.
2. Both residents and faculty will complete the annual standard program evaluation.

**Level of Supervision**

Supervision of residents is carried out by both direct and indirect observation by the attending surgeons on the General Surgery service.

**Educational Resources**

**READINGS**

- Hopkins Modules: *Cancer Screening, Pre-Op Evaluation*

Last revised: 2/17/2012 (TPG)

I, ________________________ hereby attest I have read the above goals and objectives of the General Surgery Rotation and have reviewed them with ________________________, who acts as my faculty advisor. I hereby attest that I understand these goals and objectives, how they relate to the 6 core competencies set forth by the ACGME, and agree to work diligently within their constructs.

_________________________________________        _____________________
resident signature                                      date

_________________________________________        _____________________
faculty advisor signature                              date