

GENERAL SURGERY FOR FAMILY MEDICINE RESIDENTS

PROGRAM LIAISON:	Dr.Randy Szlabick
INSTITUTION(S):	Altru Hospital
LEVEL(S):	PGY-1-PGY-5

I. GENERAL INFORMATION

The General Surgery Department at Altru Clinic has six full-time staff surgeons specializing in the treatment of various surgical conditions. In keeping with the educational philosophy of the Surgical Department, we would like the residents to obtain a broad, in-depth experience while on the surgical rotation. While the resident will be assigned to various surgeons on specific days, we would like them to make as much use of their experience as possible, while preserving an adequate outpatient clinical exposure a minimum of one day per week. While there are some variations in particular patient mixes that each surgeon is seeing, exposure to a wider group of individuals will be that the resident will be involved in the pre-operative, intra-operative, and post-operative care of general surgical patients.

II. GOALS & OBJECTIVES

PGY-1 Resident

Knowledge

- Ability to perform a detailed and comprehensive history and physical exam
- Differential diagnosis of acute abdominal pain
- Ability to detect soft tissue infection
- Differential diagnosis of leg pain
- Differential diagnosis of swelling of the extremity
- Differential diagnosis of chest pain
- Differential diagnosis of respiratory distress
- Understanding of normal post-operative recovery
- Principles of wound healing
- Ability to detect electrolyte abnormalities, anemia and coagulopathy
- Understanding principles of enteral and parental nutrition
- Understanding of basic laparoscopic principles
- Understanding microbiology principles
- Cost effective and high quality pre-op evaluation

Skills

- ACLS Protocol
- ATLS Protocol
- Wound Care
- Simple suture technique
- Insertion of central venous access
- Tube thoracostomy
- FNA
- First assistant skills
- OR procedures:
 - ✓ Incision and drainage
 - ✓ Excision of skin and subcutaneous lesions
 - ✓ Incisional biopsy
 - ✓ Breast biopsy
 - ✓ Lymph node biopsy

- ✓ Hernia repair (open)
- ✓ Hemorrhoid procedures (include banding)
- ✓ Amputation
- ✓ Varicose vein surgery
- ✓ Tracheostomy

PGY-2-3 (Junior) Resident

Knowledge

- All PGY-1 knowledge
- Principles of oncology
 - ✓ Breast
 - ✓ Melanoma
 - ✓ Soft tissue sarcoma
 - ✓ GI (include: colon and rectum)
- Metabolic responses to trauma
- Advanced GI pathophysiology
- Principles of chemotherapy
- Principles of hemostasis and coagulopathy
- Physiology and consequences of portal hypertension
- Appreciation of the delivery of costs effective, quality, clinical care

Skills

- All PGY-1 skills
- Cholecystectomy and common duct exploration
- Mastectomy and axillary dissection
- Anatomic resection and gastrointestinal anastomosis
 - ✓ Gastric resection
 - ✓ Colon resection
 - ✓ Hemodialysis access include: permanent peritoneal
 - ✓ Dialysis a-v access
- Thyroid and parathyroid surgery
- Advanced laparoscopic surgery (see laparoscopy)
- Splenectomy
- Ability to read the medical literature critically
- Ability to construct an effective clinical pathway

PGY-4-5 (Chief Resident)

Knowledge

- All PGY-1-3 knowledge
- Understanding of the ethical issues common to general surgical disease and treatment
- Clinical applications of immune theory/molecular biology
- Health care delivery issues
- Use of TNM classification models for purposes of staging and prognosis
- Understand the indications for and contraindications for basic and advanced lap. Procedures

Skills

- All PGY-1-3 skills
- Independently design and execute an appropriate plan of care for surgical patients including preoperative workup (including assessment of co-morbid conditions) intraoperative technique and appropriate post-operative follow-up
- Leadership abilities: create an effective working environment
- Skills as first assistant

- Appropriate use of consultants
- Ability to critically assess the medical literature
- Ability to understand the importance and the limitations of clinical research
- Ability to present papers, abstracts, data from the podium

ACGME Core Competencies

1. **Patient Care that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health.** Surgical residents must:
 - a. Demonstrate manual dexterity appropriate for their training level.
 - b. Be able to develop and execute patient care plans appropriate for the residents' level.
2. **Medical Knowledge about established and evolving biomedical, clinical, and cognate (e.g., epidemiological and social-behavioral) sciences, as well as the application of knowledge to patient care.** Surgical residents are expected to critically evaluate and demonstrate knowledge of pertinent scientific information.
3. **Practice-based learning and improvement that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care.** Surgical residents are expected to:
 - a. Critique personal practice outcomes.
 - b. Demonstrate recognition of the importance of lifelong learning in surgical practice.
4. **Interpersonal and communication skills that results in the effective exchange of information and collaboration with patients, their families, and other health professionals.** Surgical residents are expected to:
 - a. Communicate effectively with other health care professional.
 - b. Counsel and educate patients and families.
 - c. Effectively document practice activities.
5. **Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.** Surgical residents are expected to:
 - a. Maintain high standards of ethical behavior.
 - b. Demonstrate a commitment to continuity of patient care.
 - c. Demonstrate sensitivity to age, gender and culture of patients and other health care professionals.
6. **Systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the large 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.** Surgical residents are expected to:
 - a. Practice high quality, cost effective patient care.
 - b. Demonstrate knowledge of risk-benefit analysis.
 - c. Demonstrate an understanding of the role of different specialists and other health care professionals in overall patient management.

III. EXPECTATIONS

PGY-1

- 1) Responsible for developing accurate history taking skills for those surgical problems encountered on this team.
- 2) Responsible for developing the ability to accurately identify important and pertinent clinical findings for those surgical problems encountered on this Team.
- 3) Accurately record the pertinent historical and clinical findings, in written form, for every patient admitted by the Team.

- 4) Accurately present a patient orally, to the rest of the Team, including the attending staff, on bedside rounds and in Team conference.
- 5) Demonstrate understanding of the basic pathophysiological processes involved in diseases commonly encountered on the Blue team.
- 6) Describe a preliminary plan for evaluation of the patient, based on historical and physical findings.
- 7) Interpret basic laboratory and some of the basic diagnostic exams performed (e.g., vascular anatomy on arteriogram, normal anatomy on CT scans, understanding of ultrasound findings of the abdomen, basic CT findings in patients with blunt abdominal trauma).
- 8) Present a proposed plan for therapy.
- 9) Perform non-operative invasive procedures, under senior resident or staff supervision (e.g., CVP, A-line, S-G catheters).
- 10) Assist in and perform simple operative procedures, under direct senior resident and/or staff surgeon supervision.
- 11) Demonstrate ability to teach medical and other health professions students.

PGY-2

- 1) Demonstrate all of the skills of the PGY-1 with a greater degree of accuracy.
- 2) Demonstrate more thorough understanding of diagnostic exams.
- 3) Recognize pathologic changes on diagnostic exams (e.g., patterns of arterial occlusion, abnormal abdominal CT and ultrasound findings).
- 4) Demonstrate an understanding of rational diagnostic evaluation schemes for those diseases commonly encountered on the Blue team.
- 5) Formulate and explain a proposed therapeutic plan.
- 6) Demonstrate sufficient skills in the performance of non-operative invasive procedures, as described in PGY-1 goal #9 to allow independent function in this area after approval by senior resident and staff surgeons.
- 7) Demonstrate ability to teach students and PGY-1's when appropriate.
- 8) Assist in and perform more complicated operative procedure, under senior resident and/or attending staff supervision.

PGY-3-4

- 1) All the skills of the junior resident.
- 2) Demonstrate ability to evaluate a patient rationally and sufficiently to establish an appropriate diagnostic impression.
- 3) Ability to institute a therapeutic plan, based on diagnostic impression, under Chief Resident and attending staff supervision.
- 4) Demonstrate sufficient organizational skills to manage more junior residents and ancillary personnel on the Blue team as an efficient, cooperative, and cohesive unit.
- 5) Conduct daily rounds on all patients, determining care priorities, in consultation with Chief Resident.
- 6) Demonstrate independent skills in all appropriate non-operative procedures.
- 7) Supervise junior residents while performing skills described above.
- 8) Demonstrate ability to teach students and more junior residents.
- 9) Present patients at conferences and rounds, demonstrating understanding of disease processes and a mastery of the patient's history, findings, diagnostic evaluation, and therapy.
- 10) Perform more complex operative procedures, under Chief Resident and/or attending staff supervision.
- 11) Assist more junior residents in performing appropriate operative procedures, under attending staff supervision.

PGY-5

- 1) Demonstrate all competencies of a PGY-4 resident.
- 2) Lead the Blue team in its appropriate functions.
- 3) Demonstrate progressively greater operative skills to allow independent operative function by the end of the Chief Resident year.
- 4) Demonstrate clear and thorough understanding of surgical principles, of diagnostic evaluation, and therapeutic management.
- 5) Demonstrate sufficient leadership skills to manage the Blue team in its daily functions.
- 6) When acting as Administrative Chief Resident, coordinate call schedules, quarterly CPC conference, and serve as a resource for conflict resolution among residents.

IV. EVALUATION

A computerized evaluation will be completed by the faculty at the end of each rotation. Additionally, you are required to submit your evaluation of the rotation and faculty to the residency director.

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Blue Team Members

Dr. Robin Hape
Dr. Don DeBeltz
Dr. Robert Guttormson

Red Team Members

Dr. Randy Szlabick
Dr. Brad Belluk
Dr. Scott Charette
Dr. Billie Jo Grieve

SCORE CURRICULUM COMPONENTS

CATEGORY 1: ABDOMEN – GENERAL

DISEASES/CONDITIONS

BROAD

- Acute abdominal pain
- Intra-abdominal abscess
- Rectus sheath hematoma
- Mesenteric cyst

FOCUSED

- Chronic abdominal pain
- Peritoneal neoplasms
 - Carcinomatosis
 - Pseudomyxoma peritonei
- Spontaneous bacterial peritonitis
- Desmoid tumors
- Chylous ascites
- Retroperitoneal fibrosis

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Exploratory laparotomy – open
- Exploratory laparotomy – laparoscopic

ESSENTIAL – UNCOMMON

- Open drainage abdominal abscess

COMPLEX

- Retroperitoneal lymph node dissection – open
- Retroperitoneal lymph node dissection – laparoscopic
- Operation for pseudomyxoma

CATEGORY 2: ABDOMEN – HERNIA

DISEASES/CONDITIONS

BROAD

- Inguinal hernia
- Femoral hernia
- Ventral hernia
- Miscellaneous hernias

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Repair inguinal/femoral hernia – open
- Repair inguinal/femoral hernia – laparoscopic
- Repair ventral hernia – open
- Repair ventral hernias – laparoscopic

ESSENTIAL – UNCOMMON

- Repair miscellaneous hernias

COMPLEX

- Component separation abdominal wall reconstruction

CATEGORY 3: ABDOMEN – BILIARY

DISEASES/CONDITIONS

BROAD

- Jaundice
- Cholangitis
- Gallstone disease
 - Acute cholecystitis
 - Chronic cholecystitis
 - Choledocholithiasis
 - Biliary pancreatitis
 - Gallstone ileus
- Acalculous cholecystitis and biliary dyskinesia
- Gallbladder neoplasms
 - Polyps
 - Cancer (incidental)
- Iatrogenic bile duct injury

FOCUSED

- Gallbladder cancer
- Cancer of the bile ducts
- Choledochal cyst
- Sclerosing cholangitis

- Ampullary stenosis/sphincter of Oddi dysfunction

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Cholecystectomy with/without cholangiogram – open
- Cholecystectomy with/without cholangiogram – laparoscopic

ESSENTIAL – UNCOMMON

- Cholecystostomy
- Common bile duct exploration - open
- Choledochoscopy
- Choledochoenteric anastomosis
- Operation for gallbladder cancer (when found incidentally)
- Repair acute common bile duct injury

COMPLEX

- Laparoscopic common bile duct exploration
- Operation for gallbladder cancer (planned)
- Operation for bile duct cancer
- Excision choledochal cyst
- Transduodenal sphincteroplasty

CATEGORY 4: ABDOMEN – LIVER

DISEASES/CONDITIONS

BROAD

- Liver mass - evaluation
- Hepatic abscess

FOCUSED

- Benign neoplasms
 - Hepatic adenoma
 - Focal nodular hyperplasia
 - Hemangioma
 - Miscellaneous
- Malignant neoplasms
 - Hepatocellular carcinoma
 - Cholangiocarcinoma
 - Metastatic
 - Miscellaneous
- Cirrhosis and portal hypertension
 - Ascites
 - Bleeding esophageal varices
 - Hepatic failure and encephalopathy
 - Hepatorenal syndrome
- Viral hepatitis (occupational risk)

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Needle/wedge biopsy – open
- Needle/wedge biopsy – laparoscopic

ESSENTIAL – UNCOMMON

- Drainage liver abscess

COMPLEX

- Segmentectomy/lobectomy - open

- Segmentectomy/lobectomy - laparoscopic
- Intraoperative ultrasound of liver
- Portal-systemic shunt

CATEGORY 5: ABDOMEN – PANCREAS

DISEASES/CONDITIONS

BROAD

- Acute pancreatitis
 - Pancreatic necrosis
 - Pancreatic abscess
 - Pseudocyst

FOCUSED

- Autoimmune pancreatitis
- Chronic pancreatitis, including hereditary pancreatitis
- Pancreatic insufficiency
- Exocrine neoplasms
 - Ductal adenocarcinoma
 - Acinar cell carcinoma
 - Cystic neoplasms
 - Intraductal papillary mucinous neo-plasms
- Other periampullary neoplasms
- Endocrine neoplasms
 - Gastrinoma and Z-E syndrome
 - Insulinoma
 - VIPoma
 - Glucagonoma
 - Somatostatinoma
 - Nonfunctional tumors
- Lymphoma of pancreas

OPERATIONS/PROCEDURES

COMPLEX

- Pancreaticoduodenectomy
- Total pancreatectomy
- Ampullary resection for tumor
- Distal pancreatectomy
- Longitudinal pancreaticojejunostomy
- Frey procedure
- Beger procedure
- Intra-operative pancreatic ultrasound
- Pancreatic debridement for necrosis - open
- Pancreatic debridement for necrosis – laparoscopic/endoscopic
- Drainage pancreatic pseudocyst

CATEGORY 6: ABDOMEN – SPLEEN

DISEASES/CONDITIONS

BROAD

- Postsplenectomy sepsis

FOCUSED

- Hemolytic anemias
- Idiopathic thrombocytopenic purpa

- Secondary hypersplenism and splenomegaly
- Neoplasms of spleen
- Splenic cysts

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Splenectomy for disease – open
- Splenectomy for disease – laparoscopic

ESSENTIAL – UNCOMMON

- Partial splenectomy/splenorrhaphy

CATEGORY 7: ALIMENTARY TRACT – ESOPHAGUS

DISEASES/CONDITIONS

BROAD

- Dysphagia
- Gastroesophageal reflux and Barrett’s esophagus
- Hiatal hernia
- Esophageal perforation
 - Spontaneous
 - Iatrogenic
- Mallory-Weiss syndrome

FOCUSED

- Achalasia
- Diverticula
 - Zenker’s
 - Epiphrenic
- Foreign bodies
- Schatzki’s ring
- Chemical burns (ingestion)
- Benign neoplasms
- Malignant neoplasms
 - Adenocarcinoma
 - Squamous cell carcinoma
- Other motility disorders
 - Diffuse esophageal spasm
 - Nutcracker esophagus
 - Presbyesophagus
 - Scleroderma connective tissue disorders

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Laparoscopic antireflux procedure

ESSENTIAL – UNCOMMON

- Open antireflux procedure
- Open repair of paraesophageal hernia
- Laparoscopic repair of paraesophageal hernia
- Repair/resection of perforated esophagus

COMPLEX

- Esophagectomy, total
- Esophagogastrectomy
- Cricopharyngeal myotomy with excision Zenker’s diverticulum

- Heller myotomy – open
- Heller myotomy – laparoscopic
- Collis gastroplasty

CATEGORY 8: ALIMENTARY TRACT – STOMACH

DISEASES/CONDITIONS

BROAD

- Upper GI bleeding
- Peptic ulcer disease
 - H. pylori infection
 - Duodenal ulcer
 - Gastric ulcer
 - Bleeding
 - Perforation
 - Obstruction
- Gastric neoplasms
 - Polyps
 - Carcinoma
 - Lymphoma
 - Carcinoid
 - Stress gastritis

FOCUSED

- Morbid obesity
- Bezoars and foreign bodies
- Gastroparesis
- Postgastrectomy syndromes

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Percutaneous endoscopic gastrostomy
- Open gastrostomy

ESSENTIAL – UNCOMMON

- Partial/total gastrectomy
- Repair duodenal perforation
- Truncal vagotomy and drainage

COMPLEX

- Operation for morbid obesity – open
- Operation for morbid obesity – laparoscopic
- Laparoscopic gastric resection
- Proximal gastric vagotomy
- Revisional procedures for postgastrectomy syndromes

CATEGORY 9: ALIMENTARY TRACT – SMALL INTESTINE

DISEASES/CONDITIONS

BROAD

- Small bowel obstruction and ileus
- Meckel's diverticulum
- Crohn's disease (emergent management)
- Radiation enteritis
- Small bowel neoplasms

- Polyps
- Adenocarcinoma
- Lymphoma
- Carcinoid
- GISTs

- Intussusception
- Malrotation
- Pneumatosis
- Acute mesenteric ischemia (arterial/venous/ nonocclusive)

FOCUSED

- Short bowel syndrome
- Enteric infections and blind loop syndrome

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Small bowel resection – open
- Adhesiolysis – open
- Adhesiolysis – laparoscopic
- Ileostomy
- Ileostomy closure
- Feeding jejunostomy – open
- Feeding jejunostomy – laparoscopic

ESSENTIAL – UNCOMMON

- Superior mesenteric artery embolectomy/ thrombectomy

COMPLEX

- Stricturoplasty for Crohn’s disease

CATEGORY 10: ALIMENTARY TRACT – LARGE INTESTINE

DISEASES/CONDITIONS

BROAD

- Lower GI bleeding
- Large bowel obstruction
- Acute appendicitis
- Diverticular disease
 - Diverticulitis
 - Diverticular bleeding
 - Fistulae
- Volvulus
- Colonic neoplasms
 - Polyps
 - Colorectal cancer
 - Miscellaneous
- Neoplasms of appendix
- Inflammatory bowel disease (emergent management)
 - Crohn’s disease
 - Ulcerative colitis
 - Indeterminate colitis

- Ischemic colitis

- Antibiotic-induced colitis

FOCUSED

- Endometriosis

- Irritable bowel syndrome
- Functional constipation
- Infectious colitis

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Appendectomy – open
- Appendectomy – laparoscopic
- Partial colectomy – open
- Partial colectomy – laparoscopic
- Colostomy
- Colostomy closure

ESSENTIAL – UNCOMMON

- Subtotal colectomy with ileorectal anastomosis/ileostomy

COMPLEX

- Total proctocolectomy and ileoanal pull-through

CATEGORY 11: ALIMENTARY TRACT – ANORECTAL DISEASES/CONDITIONS

BROAD

- Hemorrhoids
- Anal fissure
- Anorectal abscess and fistulae
- Anal cancer
- Rectal cancer

FOCUSED

- Pelvic floor dysfunction
- Incontinence
- Anal dysplasia/sexually-transmitted disease
- Rectal prolapse

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Banding for internal hemorrhoids
- Hemorrhoidectomy
- Subcutaneous lateral internal sphincterotomy
- Drainage anorectal abscess
- Anal fistulotomy/seton placement

ESSENTIAL – UNCOMMON

- Excision of anal cancer

COMPLEX

- Stapled hemorrhoidectomy
- Repair complex anorectal fistulae
- Operation for incontinence/constipation
- Transabdominal operation for rectal prolapse – open
- Transabdominal operation for rectal prolapse – laparoscopic
- Perineal operation for rectal prolapse
- Operations for rectal cancer
 - Transanal resection
 - Abdominoperineal resection
 - Pelvic exenteration

CATEGORY 15: SKIN AND SOFT TISSUE

DISEASES/CONDITIONS

BROAD

- Nevi
- Melanoma
- Squamous cell carcinoma
- Basal cell carcinoma
- Evaluation of soft tissue masses
- Epidermal cyst
- Tumors of dermal adnexae
 - Apocrine tumor
 - Eccrine tumor
 - Sebaceous tumor
 - Merkel cell tumor
- Dermatofibrosarcoma
- Skin and soft tissue infections
 - Hidradenitis
 - Cellulitis
 - Necrotizing fasciitis
- Hand infections
 - Paronychia
 - Felon
 - Wound infections
 - Pilonidal cyst and sinus

FOCUSED

- Decubitus ulcer
- Soft tissue sarcomas
 - Extremity
 - Retroperitoneal
- Lymphedema

OPERATIONS/PROCEDURES

ESSENTIAL – COMMON

- Biopsy (excisional and incisional) skin/soft tissue lesions
- Incision, drainage, debridement for soft tissue infections
- Pilonidal cystectomy

ESSENTIAL – UNCOMMON

- Wide local excision melanoma
- Sentinel lymph node biopsy for melanoma

COMPLEX

- Iliioinguinal – femoral lymphadenectomy
- Major resection for soft tissue sarcoma