EDUCATIONAL GOALS AND OBJECTIVES FOR ROTATIONS ON: GENERAL SURGERY WITH EMPHASIS ON MINIMALLY INVASIVE SURGERY/ROBOTIC SURGERY, AND UPPER/LOWER GI ENDOSCOPY (GENERAL SURGERY-GREEN SURGERY SERVICE)

Goal

The overall goal of the Green Surgery Service is to continue the objectives of General Surgery with emphasis on Minimally Invasive Surgery including Robotic Surgery, and Upper/Lower GI Endoscopy. Objectives will be assessed in terms of clinical knowledge, interpersonal qualities, and operative skills though evaluations by faculty, peers, students and nursing staff.

Objectives for PGY-3 Residents: At the end of the PGY-3 residents will:

Patient Care

- Accurately diagnose most core conditions in the SCORE curriculum and some advanced conditions, as well as initiate appropriate management for most core and some advanced surgical conditions independently.
    - Acute vs chronic abdominal pain
    - Abdominal hematoma
    - Inguinal, Femoral, Ventral, Umbilical, Epigastric, Incisional hernias and mesh infection
    - Bile duct injury, bile duct neoplasm, cholangitis, choledocholithiasis, choledochal cysts
    - Acute vs chronic cholecystitis, acalculous vs calculous gallbladder disease, gallbladder cancer, gallbladder polyps, gallstone ileus
    - Obstructive jaundice, biliary pancreatitis
    - Peptic ulcer disease, stress gastritis
    - Upper and lower GI bleeding
    - Enterocutaneous fistula
    - Intussusception
    - Meckel's diverticulum, Small intestine diverticulum
    - Mesenteric ischemia
    - Paralytic ileus
    - Pneumatosis
    - Radiation enteritis
    - Small bowel obstruction
    - Appendiceal incidental neoplasm
    - Acute appendicitis
    - Colitis (c diff, ischemic, inflammatory bowel disease)
    - Colon polyps

- Colonic volvulus (cecal, sigmoid)
- Acute diverticulitis/acute diverticular bleeding
- Large bowel obstruction/pseudo-obstruction
- Anal disease: fissure, abscess, fistula, hemorrhoids, condylomas
- Benign and malignant breast disease
- Benign and malignant parathyroid disease
- Benign and malignant thyroid disease
- Soft tissue infections (including surgical site infection) and masses
- Pilonidal disease
- Hidradenitis
- Hydrocele
- Lymphadenopathy
- Sphincter of oddi dysfunction
- Gastroparesis
- Functional constipation, IBS
- Rectal prolapse
- Decubitus ulcer
- Acute abdomen
- MIS equipment and troubleshooting
- Physiologic changes associated with pneumoperitoneum
- Robotic surgery principles
- Effects of surgery on nutritional requirements and nutritional support
- Preoperative evaluation and perioperative care: surgical risk evaluation, steroid therapy management, anticoagulation management, pain management, cardiac risk, pulmonary risk, VTE prophylaxis
- Ethical issues in clinical surgery: confidentiality, decision-making, complications and poor outcomes/truth telling, professional obligations, conflict of interest, end-of-life

- Recognize and manage complex postoperative problems such as sepsis, systemic inflammatory response syndrome, and multiple organ system failure independently.
- Demonstrate proficiency in the handling of most instruments and exhibit efficiency of motion during procedures.
- Move through the steps of most operations without much coaching and make intraoperative decisions.
- Perform many of the core operations and begin to gain experience in the advanced operations.
    - Diagnostic laparoscopy
    - Intraabdominal abscess drainage
    - Inguinal, Femoral, Ventral, Umbilical, Epigastric, Incisional hernia repair
    - Open and laparoscopic cholecystectomy, intraoperative cholangiogram

    - Cholecystostomy
    - Repair of perforated ulcer disease, gastrostomy, pylorplasty
    - Adhesiolysis
    - Jejunostomy
    - Ileostomy and reversal
    - Small bowel resection
    - Open and laparoscopic appendectomy
    - Partial colectomy (open, laparoscopic, robotic)
    - Colostomy and reversal
    - anal fistulotomy/seton, drainage, biopsy, hemorrhoidectomy
    - esophagogastroduodenoscopy, colonoscopy/sigmoidoscopy/proctoscopy
    - mastectomy (partial, total), SLNB vs ALND, breast biopsy
    - parathyroidectomy
    - thyroidectomy (partial, total)
    - pilonidal cystectomy
    - excisional and incisional biopsy of skin and soft tissue lesions
    - incision and drainage of soft tissue infections
    - hydrocelectomy
    - lymph node biopsy
    - tracheostomy (open, percutaneous)
    - nerve block (peritoneal)
    - abdominal wall reconstruction/component separation
    - common bile duct exploration (open/laparoscopic), choledochoscopy, bile duct injury acute repair
    - stricturoplasty
    - subtotal colectomy with ileorectal anastomosis
    - total coloproctectomy
    - rectal prolapse repair
    - abdominoperineal resection
    - transanal resection
    - abdominal access
    - exploratory laparotomy
- Attend at least 2 clinics per week

<u>Medical Knowledge</u>

- Have significant knowledge about many core diseases in the SCORE curriculum and a basic knowledge of the advanced disease in the SCORE curriculum, and make a diagnosis and initiate appropriate initial management.
    - Acute vs chronic abdominal pain
    - Abdominal hematoma

- Inguinal, Femoral, Ventral, Umbilical, Epigastric, Incisional hernias and mesh infection
- Bile duct injury, bile duct neoplasm, cholangitis, choledocholithiasis, choledochal cysts
- Acute vs chronic cholecystitis, acalculous vs calculous gallbladder disease, gallbladder cancer, gallbladder polyps, gallstone ileus
- Obstructive jaundice, biliary pancreatitis
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- Mesenteric ischemia
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- Small bowel obstruction
- Appendiceal incidental neoplasm
- Acute appendicitis
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- Colon polyps
- Colonic volvulus (cecal, sigmoid)
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- Functional constipation, IBS
- Rectal prolapse
- Decubitus ulcer
- Acute abdomen
- MIS equipment and troubleshooting

    - Physiologic changes associated with pneumoperitoneum
    - Robotic surgery principles
    - Effects of surgery on nutritional requirements and nutritional support
    - Preoperative evaluation and perioperative care: surgical risk evaluation, steroid therapy management, anticoagulation management, pain management, cardiac risk, pulmonary risk, VTE prophylaxis
    - Ethical issues in clinical surgery: confidentiality, decision-making, complications and poor outcomes/truth telling, professional obligations, conflict of interest, end-of-life
- Have a significant knowledge of the operative steps, perioperative care, and postoperative complications for most of the core operations in the SCORE curriculum with a basic knowledge of some of the advanced operations.
    - Diagnostic laparoscopy
    - Intraabdominal abscess drainage
    - Inguinal, Femoral, Ventral, Umbilical, Epigastric, Incisional hernia repair
    - Open and laparoscopic cholecystectomy, intraoperative cholangiogram
    - Cholecystostomy
    - Repair of perforated ulcer disease, gastrostomy, pylorplasty
    - Adhesiolysis
    - Jejunostomy
    - Ileostomy and reversal
    - Small bowel resection
    - Open and laparoscopic appendectomy
    - Partial colectomy (open, laparoscopic, robotic)
    - Colostomy and reversal
    - anal fistulotomy/seton, drainage, biopsy, hemorrhoidectomy
    - esophagogastroduodenoscopy, colonoscopy/sigmoidoscopy/proctoscopy
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    - lymph node biopsy
    - tracheostomy (open, percutaneous)
    - nerve block (peritoneal)
    - abdominal wall reconstruction/component separation
    - common bile duct exploration (open/laparoscopic), choledochoscopy, bile duct injury acute repair

- stricturoplasty
- subtotal colectomy with ileorectal anastomosis
- total coloproctectomy
- rectal prolapse repair
- abdominoperineal resection
- transanal resection
- abdominal access
- exploratory laparotomy

Practice-based Learning and Improvement

- Attend conferences including Morbidity and Mortality conference, Grand Rounds, and service specific rounds.
- Demonstrate an effective teaching style when asked to be responsible for a conference or formal presentation.
- Look for trends and patterns in the care of patients and reads and uses sources to understand such patterns.
- Select an appropriate evidence-based information tool to answer specific questions while providing care.
- Independently practice surgical skills in a simulation environment to enhance technical ability.
- Evaluate own surgical results and medical care outcomes in a systematic way and identify areas for improvement.
- Identify probable causes for complications and deaths at M&M and/or other QI conferences with appropriate strategies for improving care.
- Begin to recognize patterns in the care of patients and look for opportunities to systematically reduce errors and adverse events.
- Participate in and perform at the appropriate level of the robotic curriculum.

Professionalism

- Ensure patient care responsibilities are performed and continuity of care is maintained.
- Accept responsibility for errors in patient care and initiate corrective action.
- Consistently demonstrate integrity in all aspects of care and professional relationships.
- Set an example by promoting healthy habits and creating an emotionally healthy environment for those working with them.
- Model appropriate management of personal health issues, fatigue and stress.
- Assure that others under their supervision respond appropriately to responsibilities in a timely fashion.

Interpersonal and Communication Skills

- Be capable of delivering bad news to patients and families sensitively and effectively.

- Discuss care plans with members of the health care team and keep them up to date on patient statuses and care plan changes.
- Deliver timely, complete, well organized information to referring physicians and to providers of follow-up care at the time of patient care transitions.
- Anticipate logistical issues regarding the procedure and engages members of the operating team to solve problems.
- Perform clear informed consent discussion for complex procedures.

Systems-based Practice

- Be able to efficiently arrange disposition planning for patients and take responsibility for preparing all materials necessary for discharge or transfer of patients.
- Make suggestions for changes in the health care system that may improve patient care.
- Report problems with technology or processes that could produce medical errors.