These Rotation specific objectives cover FOD, Core, TTP as demonstrated by the appropriate EPA's (see below). It is expected that the EPA's will be completed as they pertain to the rotation and that clinical knowledge be acquired in a graduated fashion. The competencies are also covered in the academic curriculum.

Rotation Description The endoscopy rotation is both simulation based and a longitudinal clinical experience. The rotations are one block in length and residents usually complete 2 blocks in their PGY1 and 2 years respectively. In this block the residents attends different endoscopy experiences as they are available on the different CTU's. A longitudinal experience is acquired as residents rotate on specific CTU's where they are able to attend endoscopy clinics.

1. **Medical Expert:**

Basic understanding of GI diseases and endoscopic GI anatomy
Basic understanding of flexible endoscope function
(1.4.10. Equipment function, common equipment-related problems, and their solutions)

a) Characteristics of endoscopes
   a. Fiberoptic components
   b. Video endoscopic components
   c. Image capture
   d. Channels
   e. Tip control

b) Equipment setup
   a. Cart
   b. Umbilical cable
   c. Equipment setup steps
   d. Equipment testing

c) Troubleshooting

d) Equipment care
   a. Maintenance
   b. Cleaning

e) Indications and contraindications of upper and lower flexible endoscopy
(1.4.10.2 Potential risks and complications of endoscopic procedures for patient, operator, and assistant, and the measures appropriate to minimize such hazards)

f) Periprocedural patient management
   a. Prepare patient for procedur

b. Informed consent
c. Bowel preparation
d. Management of anticoagulants and antiplatelet medications
e. Periprocedural antibiotics

g) Understand principles of moderate sedation
(1.4.10.3 sedation, as relevant to the endoscopy suite, 3.1.8.1 Appropriate monitoring of patients undergoing upper GI endoscopy or colonoscopy, 3.1.8.2 Use of medications to facilitate endoscopic procedures, including sedatives, narcotic analgesics, and antispasmodic medications)

h) Understand the appropriate and safe use of endoscopy
a. Indications
b. Contraindications
(1.4.10.2 Potential risks and complications of endoscopic procedures for patient, operator, and assistant, and the measures appropriate to minimize such hazards)

i) Recognition and management of normal and abnormal findings
(1.4.10.2 Potential risks and complications of endoscopic procedures for patient, operator, and assistant, and the measures appropriate to minimize such hazards)
j) Tissue sampling/ ablation/resection
(3.4.6 Diagnostic upper GI endoscopy and colonoscopy, which may include forceps biopsy, 3.4.7 hemostasis 3.4.9 Endoscopic polypectomy)
k) Enteral Access: a) Preparation, indications, PEG, replacement, complications
(3.4.20 Insertion of percutaneous endoscopic gastrostomy and open gastrostomy tubes)
l) Image differentiation of normal/abnormal pathology
m) Recognition and management of complications
(Management of complications of endoscopic procedures, including 3.4.12. perforation of the gastrointestinal *tract, hemorrhage, and infection)*
n) Colonic screening and surveillance for polyps and cancer
o) Knowledge of common diseases affecting the GI tract
p) Competent knowledge of alimentary tract diseases.
q) Competent knowledge of endoscopic therapies including dilation, foreign body removal, intraoperative endoscopy, and tumor localization

Technical Milestones

a) Simulation and clinical exposure with an emphasis on basic scope manipulation including one-handed wheel deflection, control of suction, irrigation, and insufflation, and passage of instruments through the working channel.
b) Demonstration of proper endoscope setup and function and troubleshooting of common problems

Psychomotor

a) Endoscopy Rotation
    a. A hands-on introduction to endoscopy - how a scope works and how to use it. Residents will observe flexible endoscopies and will be given the opportunity to perform at least part of a variety of procedures under close supervision. They will also set up the endoscope and remove after use.
    b. Endoscopic Simulator

Evaluation and Assessment

a) Completion of a minimum of 20 endoscopy EPAs per block
b) Endoscopy cases assessed using GAGES to achieve a minimum score of 18
c) Write formative multiple-choice exam at beginning of rotation and write and pass summative endoscopy multiple-choice exam at end of rotation
d) Successful completion of SAGES - Fundamentals of Endoscopic Surgery Online Course

Educational Strategy

Fundamentals of Endoscopy (FES) online interactive study guide

1. MODULE 1: TECHNOLOGY
    a. Characteristics of Endoscopes
    b. Equipment Setup
    c. Troubleshooting
    d. Equipment Care
2. MODULE 2: PATIENT PREPARATION
    a. Informed Consent
    b. Anesthesia Risk Assessment
    c. Bowel Preparation
    d. Prophylactic Antibiotic Therapy
    e. Management of Anticoagulatio

3. MODULE 3: SEDATION & ANALGESIA
    a. Monitoring
    b. Moderate Sedation
    c. Medications
    d. Recovery
    e. Alternative Sedation
    f. Small Caliber Endoscopy
4. MODULE 4: UPPER GASTROINTESTINAL ENDOSCOPY
    a. Indications
    b. Preparation
    c. Diagnostic EGD
    d. Complications
5. MODULE 5: LOWER GASTROINTESTINAL ENDOSCOPY
    a. Indications
    b. Preparation
6. MODULE 6: PERFORMING LOWER GI PROCEDURES
    a. Diagnostic Colonoscopy
    b. Rigid Endoscopy
    c. Lower GI Endoscopy
    d. Important Considerations
7. MODULE 7: LOWER GI ANATOMY, PATHOLOGY, AND COMPLICATIONS
    a. Pathology Recognition
    b. Complications
8. MODULE 8: DIDACTIC ERCP
    a. Indications
    b. Preparation
    c. Performance of ERCP
    d. Complications
    e. Pathology Recognition
9. MODULE 9: HEMOSTASIS
    a. Non-thermal Techniques
    b. Thermal Techniques
10. MODULE 10: TISSUE REMOVAL
    a. Resective Techniques
    b. Sampling Techniques
    c. Ablative Techniques
11. MODULE 11: ENTERAL ACCESS
    a. Preparation
    b. Indications

c. PEG
d. Procedures with PEJ
e. Replacement
f. Complications

12. MODULE 12: ENDOSCOPIC THERAPIES
    a. Dilation
    b. Foreign Body Removal
    c. Transgastric Laparoendoscopy
    d. Choledochoscopy
    e. Intraoperative Endoscopy
    f. Tumor Localization

Suggested Readings

Technology

1. Principles of Flexible Endoscopy for Surgeons
    a) Chapter 2 – Basic Components of the Endoscope
    b) Chapter 3 – Set up and Care of Endoscopes

2. Practical Gastrointestinal Endoscopy
    a. Chapter 1 – The endoscopy unit and staff

c) Chapter 2 – Endoscopy Equipment

d) Upper Gastrointestinal Endoscopy
    a. Principles of Flexible Endoscopy for Surgeons
        i. Chapter 16 – Techniques of upper endoscopy
    b. Practical Gastrointestinal Endoscopy
        i. Chapter 4 – Upper Endoscopy: diagnostic techniques

e) Lower Gastrointestinal Endoscopy
    a. Principles of Flexible Endoscopy for Surgeons
        i. Chapter 17 – Techniques and tips for lower endoscopy
    b. Practical Gastrointestinal Endoscopy
        i. Chapter 6 – Colonoscopy and flexible sigmoidoscopy
        ii. Patient Preparation, Sedation, and Analgesia

f) Principles of Flexible Endoscopy for Surgeons
    a. Chapter 4 – Pre-procedural considerations
    b. Chapter 5 – Intra-procedural considerations
    c. Chapter 6 – Post-procedural considerations

g) Practical Gastrointestinal Endoscopy
    a. Chapter 3 – Patient care, risks, and safety
h) Atlas of Digestive Endoscopic Resection
    a. Chapter 1.2 – Narrow Band Imaging

Tissue sampling, ablation, resection

1. Principles of Flexible Endoscopy for Surgeons
    a. Chapter 7 – Endoscopic tools/techniques for tissue sampling
    b. Chapter 9 – Endoscopic tools and techniques for tissue removal and ablation
2. Practical Gastrointestinal Endoscopy
    a. Chapter 7 – Therapeutic colonoscopy
    b. Chapter 5 – Therapeutic upper endoscopy

Enteral Access

1. Principles of Flexible Endoscopy for Surgeons
    a. Chapter 11 – Endoscopic techniques for enteral access

Endoscopic Complications

1. Principles of Flexible Endoscopy for Surgeons
    a. Chapter 8 – Tools and techniques for gastrointestinal hemorrhage
    b. Chapter 20 – Management of endoscopic complications

a) COMMUNICATOR

Establish professional therapeutic relationships with patients and their families

1.1. Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
1.2. Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
1.3. Recognize when the perspectives values, or biases of patients, patients' families, physicians, or other health care professionals may have an impact on the quality of care, and modify the approach to the patient accordingly
1.4. Respond to a patient's non-verbal behaviours to enhance communication
1.5. Manage disagreements and emotionally charged conversations
1.5.1. Discuss autopsy and organ donation when appropriate
1.6. Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances 1.6.1 Apply a proactive approach to managing patient expectations and needs through the course of their illness

Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families

2.1 Use patient-centred interviewing skills to effectively gather relevant biomedical and psychosocial information
2.2 Provide a clear structure for and manage the flow of an entire patient encounter
2.2.1 Gather information accurately and effectively under time constraints
2.3 Seek and synthesize relevant information from other sources, including the.patient's family, with the patient's consent

Share health care information and plans with patients and their families

3.1 Share information and explanations that are clear, accurate, and timely, while assessing for patient and family understanding 3.1.1 Convey treatment options, including operative, nonoperative, interventional radiology, and endoscopic measures

Engage patients and their families in developing plans that reflect the patient's health care needs and goals

4.1. Facilitate discussions with patients and their families in a way that is respectful, non-judgmental, and culturally safe
4.2 Assist patients and their families to identify, access, and make use of information.and communication technologies to support their care and manage their health
4.3. Use communication skills and strategies that help patients and their families make informed decisions regarding their health

Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy

5.1 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements
management
5.2 Communicate effectively using a written health record, electronic medical record,.or other digital technology
5.3. Share information with patients and others in a manner that enhances understanding and that respects patient privacy and confidentiality

COLLABORATOR

Work effectively with physicians and other colleagues in the health care professions

1.1 Establish and maintain positive relationships with physicians and other colleagues.in the health care professions to support relationship-centred collaborative care
1.2. Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
1.3 Engage in respectful shared decision-making with physicians and other colleagues.in the health care professions

Work with physicians and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts

2.1. Show respect toward collaborators
2.2. Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture

Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care

3.1. Determine when care should be transferred to another physician or health care professional
3.2. Demonstrate safe handover of care, using both oral and written communication, during a patient transition to a different health care professional, setting, or stage of care

Leader

Contribute to the improvement of health care delivery in teams, organizations, and systems

1.1 Apply the science of quality improvement to systems of patient care
1.1.1 Demonstrate awareness of guidelines for reporting surgical results
1.1 Contribute to a culture that promotes patient safety
1.3 Analyze patient safety incidents to enhance systems of care
1.3.1 Participate in reviews of patient complications and deaths
1.4 Use health informatics to improve the quality of patient care and optimize patient safety

Engage in the stewardship of health care resources

2.1 Allocate health care resources for optimal patient care
2.2 Apply evidence and management processes to achieve cost-appropriate care
2.2.1 Recognize the responsibility to forgo treatments that are futile

Demonstrate leadership in professional practice

3.1 Demonstrate leadership skills to enhance health care
3.2 Facilitate change in health care to enhance services and outcomes

Manage career planning, finances, and health human resources in a practice

4.1 Set priorities and manage time to integrate practice and personal
4.2 Manage personal professional practice(s) and career
4.3 Implement processes to ensure personal practice improvement
4.3.1 Maintain an electronic record of operative procedures performed, including treatment complications and surgical complications as a source of reflection on performance and stimulus for personal practice improvement

Health Advocate

Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment

1.1 Work with patients to address determinants of health that affect them and their access to needed health services or resources
1.2 Work with patients and their families to increase opportunities to adopt healthy behaviours
1.3 Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients

Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner

2.1 Work with a community or population to identify the determinants of health.affect them
2.2 Improve clinical practice by applying a process of continuous quality improvement 2.2.to disease prevention, health promotion, and health surveillance activities
2.3 Contribute to a process to improve health in the community or population they serve
2.3.2 Promote organ donation

Scholar

Engage in the continuous enhancement of their professional activities through ongoing learning

1.1 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
1.2. Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
1.3. Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice

Teach students, residents, the public, and other health care professionals

2.1. Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners
2.2. Promote a safe learning environment
2.3. Ensure patient safety is maintained when learners are involved
2.4. Plan and deliver learning activities
2.5. Provide feedback to enhance learning and performance
2.6. Assess and evaluate learners, teachers, and programs in an educationally appropriate manner

3.Integrate best available evidence into practice

3.1. Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that can address them
3.2. Identify, select, and navigate pre-appraised resources
3.3. Critically evaluate the integrity, reliability, and applicability of health-related research and literature
3.4. Integrate evidence into decision-making in their practice

Professional

Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards

1.1 Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality

1.2 Demonstrate a commitment to excellence in all aspects of practice
1.3.Recognize and respond to ethical issues encountered in practice
1.4. Recognize and manage conflicts of interest
1.5 Exhibit professional behaviors in the use of technology enabled communication

Surgical Foundations EPAs – Transition to Discipline

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
D1: Performing the preoperative preparation of patients for basic surgical procedures	Case discussion and/or review of documentation by supervisor or senior surgical assistant	None	1
D3: Documenting clinical encounters	Direct observation or case discussion by supervisor or senior surgical assistant **with review of clinical documentation**	None	2
D5: Demonstrating the ability to function in the operating room	Direct observation by supervisor or senior surgical assistant	None	1

* Unless otherwise specified, supervisor = attending surgeon, fellow or senior resident
* Gold shaded rows are high likelihood and/or high priority

Surgical Foundations EPAs – Foundations of Discipline

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
F4: Providing risk assessment and management for preoperative patients in preparation for surgery	Direct or indirect observation by supervisor	At least 2 different assessors At least one emergency procedure At least one elective procedure At least one high risk or critically ill patient	4

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
F5: Providing patient education and informed consent in preparation for surgical care	Direct observation by supervisor	At least 2 different assessors At least one emergency procedure At least one elective procedure At least 2 in clinical (non-sim) settings	3
F6A & B: Participating in surgical procedures	Part A Direct observation by supervisor Part B (MSF) Direct observation by members of the health care team	Part A At least 2 by attending/faculty surgeon At least 2 different types of procedures At least 2 different assessors Part B 3 different observers 2 different roles (at least 1 by a Nurse)	4 3
F9: Supervising junior learners in the clinical setting	Direct observation by supervisor or junior learners (medical students)	At least 2 different senior residents or faculty	3

* Unless otherwise specified, supervisor = attending surgeon, fellow or senior resident
* Gold shaded rows are high likelihood and/or high priority

General Surgery EPAs – Foundations of Discipline

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
F 1. Assessing and providing initial management plan for patients presenting with a simple General Surgery problem	Direct and indirect observation by surgeon, surgical fellow, Core or TTP resident	At least 2 different observers At least 3 observations by faculty At least 1 direct observation	5
F 2. Recognizing and initiating management for patients with a surgical abdomen/acute abdomen	Direct observation and/or case review by general surgeon, critical care physician, surgical subspecialty trainee, or Core or TTP resident	At least 2 observations by faculty	3
F 3. Performing fundamental skills in General Surgery	Direct observation by surgeon, surgical fellow, or Core or TTP resident	At least 2 laparotomy, including 1 opening and 1 closing At least 2 laparoscopy No more than 1 simulation per task At least 3 observations by faculty	6
F 4. Performing the pre-procedural assessment and risk optimization for patients undergoing endoscopy (PART A: Consent)	Direct observation by faculty surgeon, subspecialty trainee (GS, GS subspecialty or GI), or Core or TTP GS resident	At least 1 observation by faculty	2
F 4. Performing the pre-procedural assessment and risk optimization for patients undergoing endoscopy (PART B: Patient preparation)	Direct or indirect observation by faculty, subspecialty trainee (GS, GS subspecialty or GI), or Core or TTP GS resident	At least 1 upper endoscopy At least 1 lower endoscopy At least 1 non-elective At least 2 different observers At least 2 observations by faculty	4

* Unless otherwise specified, supervisor = attending surgeon, fellow or senior (Core or TTP) resident
* Gold shaded rows are high likelihood and/or high priority

Last Reviewed Jan 2025