Rotation Specific Objectives: CTU 1 Colorectal Surgery

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 see Skills section below). The competencies are also covered in the academic curriculum.

Rotation Description:

Kingston Colorectal Surgery (CTU # 1) has three faculty: Dr. Ameer Farooq (Colorectal Surgery), Dr Christine Li (Colorectal Surgery), Dr. Sunil Patel (Service Chief, Colorectal Surgery). CTU#1 provides Tertiary level care for the Southeast Region (pop ~ 700,000).

Oshawa Colorectal Surgery has four faculty: Dr. Dr. ian Chin, Dr Andrew Yuen, Dr Robery Wu and Dr Kouros Moozar. Oshawa Colorectal Surgery provides both community level and tertiary care level colorectal surgery*).*

Disease Pathology includes: colon cancer (~20%), rectal cancer (~40%), inflammatory bowel disease (~10%), diverticular disease (~10%) and benign anorectal disease (~20%). *Clinical experiences include*: clinic, endoscopy, Robotic OR Days, Non-Robotic OR Days. *Academic Activity Includes*: Weekly CTU1 Rounds (Case Review, Video Review), GI MCC (Mondays). Colorectal specific interesting cases and a lecture series every 2 years at Academic Half day.

Goals and Objectives
FOD, Core TTP:

a) *Knowledge*
- Well organised understanding of colorectal anatomy, pathology and pathophysiology (see as per specific RCPSC goals of training in General surgery)
- specific RCPSC goals of training in General surgery)

b) *Skills*
- Mastery of basic physician skills related to colon, rectum and anus
- Introduction to colorectal specific surgical procedures with *graduated* performance in the operating room appropriate for the stage of training
- Perform basic upper GI endoscopic evaluation

- **At the end of this rotation the Resident in Surgical Foundations/ TTD will be able to:**
- Manage the ward with the guidance of a senior resident/ fellow.
- Recognize most common post-operative complications related to colorectal surgery and deal with them appropriately.
- Arrange and facilitate efficient investigation of patients in the emergency department and on the surgical ward.
- Competently initiate opening and closing the abdominal incision in both open surgery and extraction sites following minimally invasive surgery
- Undertake simple skin and soft tissue biopsies
- Assist with complex and laparoscopic colorectal surgery (including insertion of ports, laparoscopic retraction)
- Assist with robotic colorectal surgery (including insertion of ports, docking of robotic arms, insertion/withdrawal of robotic instruments)
- Participate in endoscopy (colonoscopy and flexible sigmoidoscopy) and competently perform basic endoscopic skills

- **At the end of this rotation the Resident in Core will be able to:**
- Manage the ward, and perform in-patient and outpatient consultations, and provide outpatient follow up care
- Capable of performing basic endoscopic evaluation of the colon and rectum
- Participate in the care of common and complex colorectal surgery
- Appreciate the approach to difficult appendectomies both open and laparoscopically as experience with right colonic surgery is increased.
- Able to describe/ perform basic anorectal procedures (Hemorrhoidectomy, Fistulotomy, Sphincterotomy)
- Able to competently perform basic minimally invasive and open surgical techniques.
- Able to competently assist in complicated laparoscopic colorectal surgery and undertake as the primary surgeon different parts of the procedure (i.e. ligation of ileocolic pedicle, take down of white line of toldt).
- Able to competently provide bedside assist in Robotic Colorectal Surgery
- Able to perform basic Robotic Surgery Tasks at the Console, including but not limited to retraction, use of monopolar or bipolar device, robotic suturing

- At the end of this rotation the **Final Year Resident** will be able to complete all the functions of the senior and junior resident and:

- Competently undertake endoscopic procedures of the colon and rectum including diagnostic and therapeutic procedure (including simple polypectomy and biopsy)
- Undertake the full range of surgical care involving common elective colorectal surgery expected of a community general surgeon including (but not limited to):

    Non-complex laparoscopic colonic resection for cancer or diverticulitis (Oshawa)
    Creation/closure of ileostomy or colostomy
    Non-complex anorectal procedures for benign disease such as hemorrhoidectomy, simple fistulotomy, seton placement, Transanal excision of benign lesions, lateral internal sphinterotomy
- Competently assist and/or perform portions of colorectal surgery typically performed by fellowship trained colorectal surgeons including (but not limited to):

    Open surgery for complex colorectal diseases, including but not limited to recurrent rectal cancer, pelvic exenteration, Hartmann's reversal, complex diverticular disease or inflammatory bowl disease
    Robotic or Laparoscopic Total Mesorectal Excision for rectal cancer (including LAR, APR) or inflammatory bowel disease (plus or minus J Pouch Creation)
    Open or minimally invasive resection for complex inflammatory bowel disease Laparoscopic resection of complex diverticular disease (Oshawa)
    Robotic resection of complex diverticular disease (Kingston)
    Perineal or Minimally Invasive Surgery for Rectal Prolapse Surgery (Kingston)
    Complex Transanal surgery for benign or malignant disease, including

a. Attitudes

i. Manage the ward with the guidance of a senior/chief resident (junior).
ii. Function as a coordinator and supervisor of junior house staff and students on the colorectal service involving preoperative, intraoperative and postoperative patient management delivered in step down unit, ICU and on the ward (senior)
iii. Communicates effectively with patients and families, colleagues & allied health professionals
iv. Professional behaviours (honesty, reliability, & confidentiality)
v. Communicates effectively with patients and families, colleagues & allied health professionals
vi. Professional behaviours (honesty, reliability, & confidentiality)

b. Academics

RC Competencies in detail:

a) MEDICAL EXPERT

At the conclusion of the transition to practice the resident should meet all of the following objectives in spite of variations in rotation durations and resident exposure to colorectal surgery.

1.4.1. **Surgical anatomy**, including arterial supply, venous and lymphatic drainage, and innervation of:
1.4.1.3. Small intestine, including relationships to other structures in the abdomen
1.4.1.4. Colon, including relationships to other structures in the abdomen, peritoneal attachments and anatomy of the retroperitoneum
1.4.1.5. Rectum and anus, including relationships to other structures in the pelvis and perineum, anal sphincter complex, pelvic floor musculature, and perirectal and perianal spaces

1.4.3. **Physiology** relevant to General Surgery, including:
Colon
1.4.3.4. Colon, including fluid absorption and colonic motility
1.4.3.5. Fecal continence and defecation

1.4.6. **Principles of oncology** as it relates to the espohagu, stomach, small bowel colon, rectum and anus 1.4.6.1. Tumour biology 1.4.6.1.1. The cell cycle and normal regulatory mechanisms 1.4.6.1.2. Effects of radiation on the cell cycle 1.4.6.1.3. Mechanisms of action of systemic therapies, including targeted therapies, on the cell cycle 1.4.6.1.4. Cellular differentiation in normal, premalignant, and malignant tissues 1.4.6.1.5. Growth and dissemination patterns of cancer 1.4.6.2. Tumour genetics 1.4.6.2.1. Oncogenes and tumour suppressor genes 1.4.6.2.2. Role of genetic testing in suspected hereditary cancers 1.4.6.2.3. Common familial cancer syndromes and their genetic mechanisms 1.4.6.3. Cancer epidemiology, including incidence, prevalence, and risk factor. 1.4.6.4. Prevention of malignancy 1.4.6.4.1. Methods that can be used to protect against or limit the risk of malignancy, including environmental factors, medications, and vaccines 1.4.6.4.2. Definition and important attributes of a screening test, and malignancies for which there are effective screening tests 1.4.6.4.3. Role of prophylactic surgery in patients at high risk 1.4.6.5. Diagnostic tools to establish diagnosis and evaluate patients with cancer 1.4.6.5.1. Role of and the potential impact of molecular diagnostics on treatment, prognosis, and outcome 1.4.6.6. Cancer staging and risk stratification 1.4.6.7. Treatment of patients with malignancies 1.4.6.7.1. Surgical options in the diagnosis and staging, cure, prolongation of survival, improvement in quality of life, and/or palliation of malignancy 1.4.6.7.2. Principles of neoadjuvant, adjuvant and palliative therapies for malignancies, including chemotherapy, radiotherapy, immunotherapy, and hormonal therapy 1.4.6.7.3. Role of treatments that provide effective palliation, enhance prevention and decrease recurrence, and improve quality of life 1.4.6.8. Principles of a follow-up program for patients who have been treated for malignancy 1.4.6.9. Guidelines for management of malignancy

1.4.10. **Principles of 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 1.4.10.3. Infection control and sedation, as relevant to the endoscopy suite

1.4.11. **Principles of nutrition** 1.4.11.1. Normal requirements for calories, carbohydrates, fat, protein, vitamins, trace elements, and minerals 1.4.11.2. Nutritional assessment techniques 1.4.11.3. Effects of trauma and illness on nutritional requirements 1.4.11.4. Indications for enteral and parenteral nutrition supplementation and their potential complications

Perform a patient-centred clinical assessment in the area of gastrointestinal problems and establish a specific management plan

2.2 Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion 2.2.1. Gather a relevant clinical history 2.2.2. Identify and interpret the clinical significance of findings in a physical examination 2.2.4. Select appropriate methods to stage malignancies 2.2.5. Select and interpret medical imaging 2.2.5.1. Radiography 2.2.5.2. Ultrasonography 2.2.5.3. Computed tomography (CT) 2.2.5.4. Magnetic resonance imaging (MRI) 2.2.5.5. Nuclear imaging 2.2.5.6. Positron emission tomography (PET) 2.2.6. Interpret the clinical relevance of laboratory and pathology reports 2.2.7. Determine the indications for, and benefits and risks of surgical intervention for the clinical presentation 2.2.8. Assess peri-operative risk Establish goals of care in collaboration with patients and their families1 2.3. , which may include slowing disease progression, treating symptoms, achieving cure, improving function, and palliation 2.3.1. Identify opportunities for advance care planning discussions and explore the patient's values, wishes and preferences related to end-of life-care 2.3.1.1. Apply knowledge of settings for end-of-life care, including home, hospice, palliative care units, and hospital.

Establish a patient-centered management plan, including non-operative, preoperative, operative, and postoperative care for patients with the following conditions:

2.4.14. Inflammatory conditions, including Crohn's disease, neutropenic enteritis, and radiation enteritis

Colon

2.4.20. Appendicitis

2.4.21. Complications following colostomy

2.4.22. Diverticular disease and its complications

2.4.23. Hemorrhage

2.4.24. Infectious conditions, including conditions caused by Clostridium difficile and cytomegalovirus

2.4.25. Inflammatory conditions, including neutropenic colitis, radiation colitis, and inflammatory bowel diseases including Crohn's disease, ulcerative colitis, and microscopic colitis (indications for each operation, mamament of fulminant colitis)

2.4.26. Ischemia, including occlusive and non-occlusive disease

2.4.27. Motility disorders, including irritable bowel syndrome, colonic inertia, and acute and chronic pseudo-obstruction

2.4.28. Neoplasms, including benign and malignant (to include tumours of the appendix, colon, rectum, anus, omentum, desmoid tumors, retropritoneal fibrosis and retroperitoneal tumors)
2.4.28.1. Sporadic cancer, including mechanism and adenoma-to-carcinoma sequence 2.4.28.2. Familial cancer, including familial adenomatous polyposis (FAP), hereditary nonpolyposis colorectal cancer (HNPCC), and other polyposis syndromes
2.4.29. Obstruction
2.4.30. Perforation Rectum and anus
2.4.31. Rectal conditions
2.4.31.1. Fecal incontinence (Constipation-Work-up, Diagnostic tests, Medical and Surgical ManagementIncontinence-Work-up, Diagnostic tests, Medical and surgical management Manometry and special investigations Understand the principles of manometry and normal values anorectal applications Define EMG and the role in investigation of incontinence.Understand the application of defecography)

2.4.31.2. Neoplasms, including benign and malignant
2.4.31.3. Obstructed defecation
2.4.31.4. Proctitis, including due to ulcerative colitis, radiation, and sexually transmitted infection
2.4.31.5. Rectal prolapse, rectocele
2.4.31.6. Rectovaginal fistula
2.4.32. Anal and perianal conditions
2.4.32.1. Abscess
2.4.32.2. Anal fissure, including acute and chronic
2.4.32.3. Condyloma
2.4.32.4. Fistula
2.4.32.5. Hemorrhoids
2.4.32.6. Neoplasms of the anal canal and perianal skin
2.4.32.7. Pruritus ani

i) **Plan and perform procedures and therapies for the purpose of assessment and/or management**

3.1.2. Screening and surveillance for malignancies 3.1.3. Prophylactic use of anticoagulants 3.1.4. Prophylactic and therapeutic use of pharmacologic agents, including antibiotics and corticosteroids 3.1.7. Selection of open or MIS approach based on relevant patient and operating environment factor 3.1.8. Endoscopy 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
3.2. Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy 3.2.1. Recognize and address challenges arising in emergency situations and when patient capacity to provide consent is limited
3.3. Prioritize procedures or therapies, taking into account clinical urgency and available resources 3.3.1. Triage patients appropriately for emergent, urgent or elective care and interventions 3.3.2. Select patients appropriately for intraoperative pathology consultations
3.4. Perform procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances

ii) Diagnostic Procedures and technical skills specific to colorectal surgery

Apply the following principles to the procedures outlined below
Describe pitfalls and complications and perform all aspects of bowel anastomosis including use of the stapler and suturing of the bowel
Understand the technical approach to stapling for low anterior resection
Be aware of the specific complications of a low anterior dissection
Possible complications i.e. what structures can be injured
What maneuvers can be used to prevent, detect and manage such injuries.
Being aware of positioning that is used to facilitate exposure in the deep pelvis
Being aware of instruments that are used to facilitate exposure in the deep pelvis
Ability to define the full extent of rectal resection (TME) for cancer including
-The level for ligation of the vascular pedicle for rectal cancer
- Mesenteric and bowel margins.
Ability to define the extent of resection for a right colon lesion, a left colon and a sigmoid
colon cancer.
Understand when an abdominoperineal resection vs. coloanal anastomosis vs. low
anterior resection are performed for rectal cancer
Understand when and how a mucosectomy is performed
Perineal excision of the anus
To understand how to make the incision and what landmarks to use to define the
extent of proctectomy
To understand order of the dissection

To understand the management of the perineal wound
To understand the management of the pelvis after proctectomy
Creation of a stoma
Siting of the stoma
Size of the fascial opening
Which part of the bowel to use and how to mature the bowel
Stomal complications: How do you avoid retraction, deformity, ischemia and parastomal hernia development
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1. **Colon**

3.4.39. Resection with anastomosis of the intra-abdominal colon, including right, extended right, transverse, left, sigmoid, and total colectomies
3.4.40. Appendectomy
3.4.41. Diversion and defunctioning of the colon
3.4.42. Hartmann's resection and reversal
3.4.43. Repair of colonic fistulae, including colovesical, colovaginal, and coloenteric fistulae
3.4.44. Colonic lavage as part of another colonic surgical procedure

2. **Rectum and anus**

3.4.45. Diversion for benign or malignant ano-rectal disorders
3.4.46. Operative management of acute and chronic hemorrhoidal disease
3.4.47. Operative management of acute and chronic anal fissures
3.4.48. Operative management of uncomplicated perianal and perirectal abscesses 3.4.49. Operative management of uncomplicated anal fistulae
3.4.50. Proctectomy and anastomosis for lesions in the upper and middle thirds of the rectum
3.4.51. Abdominoperineal resection for benign or malignant diseases of the rectum or anus
3.4.52. Total mesorectal excision for rectal malignancy
3.4.53. Management of rectal prolapse by abdominal approaches
3.4.54. Removal of rectal foreign bodies
3.4.55. Transanal resection of benign lesion

iii. **Provide perioperative care and surgical management in collaboration with subspecialty surgeons**

Rectum and anus
3.5.11. Low rectal cancer restorative procedures, including lower third and coloanal anastomoses
3.5.12. Complex anal fistula repair
3.5.13. Rectal prolapse repairs requiring perineal approaches
3.5.14. Rectovaginal fistula repair

Establish plans for ongoing care and, when appropriate, timely consultation

Implement a patient-centred care plan that supports ongoing care, follow-up on. investigations, response to treatment, and further consultation
4.1.1. Identify indications for consultation with other health care professionals
4.1.1.1. Provide referral for advanced operative or endoscopic procedures
4.1.1.2Identify indications for and timing of consultation with medical.and/or radiation oncologists
4.1.2. Provide follow-up on results of investigations and response to treatment
4.1.3. Recognize and manage complications
Perioperative complications related to pneumoperitoneum, 4.1.3.1.including acidosis, hypotension, hypoxia, and pneumothorax
4.1.3.2 Perioperative complications of abdominal access, including injuries.to the abdominal viscera and blood vessels
4.1.4. Provide management of and/or referral for end-of-life care

Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

5.1Recognize and respond to harm from health care delivery, including patient safety.incidents
5.2 Adopt strategies that promote patient safety and address human and system.factors 5.2.1 Participate and/or lead in a pause or checklist immediately before surgical.incision
5.2.2 Apply strategies to enhance patient and provider safety and reduce the.risk of complications from surgical interventions

b) 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
D4: Demonstrating handover technique	Direct observation by supervisor or senior surgical assistant	At least 1 in a clinical (not sim) setting At least 2 different assessors	2
D5: Demonstrating the ability to function in the operating room	Direct observation by supervisor or senior surgical assistant	None	1
D6: Suturing incisions	Direct observation by supervisor or senior surgical assistant	At least 1 wound > 5cm long At least 1 in a clinical (not sim) setting At least 2 different assessors	2
D7: Managing tubes, drains, and central lines	Direct observation or case discussion by supervisor (surgeon, fellow or senior resident)	2 different types of tubes / drains At least 1 in a clinical (not sim) setting At least 2 different assessors	2

* 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
F1: Providing initial management for critically ill patients	Direct observation or case discussion by supervisor or physician	At least 2 different presentations At least 2 different assessors No more than 1 in a simulation setting	3
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
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
F7A & B: Managing patients with an uncomplicated post-operative course (Part A)	Part A Direct observation or case discussion by supervisor Part B (MSF) Direct observation by members of the health care team	Part A At least 2 high complexity patients At least 2 different assessors Part B 3 different observers 2 different roles	4 6
F8: Managing post-operative patients with complications	Direct observation or case discussion by supervisor **with review of documentation**	At least 4 different complications At least 3 different assessors	8

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
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)	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)	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

General Surgery EPAs – Core of Discipline

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
C 1. Providing surgical consultation	Direct observation and/or case review by general surgeon, surgical subspecialist, subspecialty trainee, or TTP trainee	At least 2 different settings No more than 1 sim At least 5 complex At least 1 thyroid or parathyroid At least 3 different observers At least 5 observations by faculty	10
C2: Providing initial assessment and management of patients with multiple traumatic injuries	Direct observation and/or case review by a general surgeon, emergency physician, trauma team leader (TTL) or trauma fellow	At least 1 penetrating trauma, may be sim At least 1 unstable patient At least 3 direct observations At least 3 observations by faculty	5
C3: Leading the team providing care for an inpatient surgical service	Direct and indirect observation by supervisor	At least 1 in a community setting At least 1 in a General Surgery acute care service At least 3 in a service with more than 10 patients on average At least 3 different observers	5
C4: Providing follow-up care	Direct observation and/or case discussion or chart review by supervisor	At least 2 in outpatient setting At least 2 complex At least 1 transition to palliative At least 2 different observers A range of treatment decisions	5
C6: Performing procedures on the small bowel	Direct observation by general surgeon or subspecialty trainee	At least 6 observations by faculty At least 2 different observers At least 2 of each surgical task	12
C7: Performing procedures on the appendix and colon	Direct observation by general surgeon or subspecialty trainee	At least 9 observations by faculty At least 2 of each surgical task At least 1 left sided colon resection At least 1 emergent colon resection At least 2 different observers	18

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
C8: Performing procedures on the rectum and anus	Direct observation by general surgeon or subspecialty trainee	At least 9 observations by faculty At least 1 of each surgical task At least 2 different observers	18
C14: Performing procedures on the abdominal wall and hernia	Direct observation by general surgeon or subspecialty trainee	At least 1 emergent procedure At least 2 in each region (abdominal wall, groin) At least 1 temporary abdominal wall closure At least 2 of each surgical task At least 2 different observers At least 5 observations by faculty	10
C17: Performing the skills of minimally invasive surgery (MIS)	Direct observation by general surgeon or subspecialty trainee	At least 1 of each surgical task At least 2 different observers At least 2 observations by faculty	4
C20: Performing colonoscopies	Direct observation by general surgeon, subspecialty surgeon, gastroenterologist or subspecialty trainee	At least 6 colonoscopies to the level of the terminal ileum At least 5 polypectomies including 2 >1cm At least 2 different observers At least 5 observations by faculty	10
C 22 (SA 2): Delivering scholarly teaching to a variety of audiences, including peers, junior trainees, and/or other health professionals	Direct observation by surgeon	None	2

* Gold shaded rows are high likelihood and/or high priority

General Surgery EPAs – Transition to Practice

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
P1: Managing an outpatient clinic	Direct and indirect observation of clinic management by general surgeon	2 different assessors 2 clinics of at least ½ day each	2
P2: Managing the day's list of endoscopy procedures	Direct observation by general surgeon or gastroenterologist	2 different assessors	2
P3: Managing the day's list of operative procedures	Direct observation by general surgeon or subspecialty trainee, incorporating feedback from anesthesiologist and operating room charge nurse or OR nurses	2 Different assessors 1 Faculty observation Mix of inpatients and outpatients	2
P4: Performing therapeutic endoscopic interventions of the upper and lower gastrointestinal tract (OPTIONAL)	Direct observation by general surgeon, subspecialty surgeon, gastroenterologist or subspecialty trainee	2 Different assessors 8 Faculty observations 2 Hemostasis in active bleeding 2 Dilations 2 Foreign body removal 5 Polypectomy > 1 cm 1 Endoluminal stent insertion 1 Colonic decompression	15
P5 (SA #1): Performing the administrative, human resource and financial aspects of independent practice	Review of portfolio of activities by supervisor	None	1

Resources: Link provided by Dr Patel: Multiple resources.
Modified 2025 (addition Dr Li); Formal review Oct 2025