CTU #6 Benign Upper GI Surgery, Bariatric surgery and Endoscopy

Rotation Specific Objectives:

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 CTU # 1 is staffed by Dr. Boris Zevin, Dr David Robertson and Dr Peter Szas. The emphasis of the clinical experience on CTU # 6 is on Bariatric Surgery, Benign Upper GI Surgery, and endoscopy

Goals and Objectives

FOD, Core TTP:

a. ***Knowledge***

- Well organised understanding of anatomy, pathology and pathophysiology related to the upper GI tract, bariatric procedures and endoscopy (see as per specific RCPSC goals of training in General surgery)

b) ***Skills***

- Mastery of basic physician skills related to upper GI pathology
- Introduction to upper GI and bariatric specific surgical procedures with *graduated* performance in the operating room appropriate for the stage of training
- Perform basic endoscopic evaluation of the upper GI tract
- **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/chief resident.
- Recognize most common post-operative complications related to foregut 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
- Assist with complex and laparoscopic foregut surgery (including insertion of ports, laparoscopic retraction)
- Participate in upper endoscopy 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 foregut
- Participate in the care of common and complex foregut procedures
- Complete endoscopic suturing independently and in a facile manner

c) Attitudes

- Manage the ward with the guidance of a senior/chief resident (junior).
- Function as a coordinator and supervisor of junior house staff and students on CTU 6 involving preoperative, intraoperative and postoperative patient management delivered in step down unit, ICU and on the ward (senior)
- Communicates effectively with patients and families, colleagues & allied health professionals
- Professional behaviours (honesty, reliability, & confidentiality)

d) Academics

RC Competencies:

a) MEDICAL EXPERT

A. Bariatric Surgery

1. Understand the pathophysiology, epidemiology, natural history of morbid obesity
2. Understand contemporary options for management of morbid obesity
    a. Indications for medical management of morbid obesity
    b. Indications for surgical management of morbid obesity
3. Understand entire spectrum of obesity related medical comorbidities and which of these comorbidities are modifiable with surgical management of morbid obesity
4. Understand roles and importance of each member of the multidisciplinary team at Kington Bariatric Centre of Excellence
5. Understand normal physiology and anatomy of the upper GI tract (1.4.1.2, 1.1.1.1)
6. Understand and be able to discuss advantages and disadvantages of available surgical options for management of morbid obesity (3.4.25: gastric bypass, gastric band, sleeve gastrectomy, duodenal switch, intragastric balloon, novel endoluminal therapies)

7. Understand typical post-surgical anatomy following bariatric surgery
8. Understand surgical options for revision and conversion post primary bariatric surgery
9. Describe and be able to demonstrate operative approach for primary bariatric procedures (gastric bypass and sleeve gastrectomy)
10. Understand and demonstrate appropriate diagnosis and management of common post-operative bariatric surgery complications (3.4.21):
    a. Anastomotic leak (2.4.19)
    b. Anastomotic stricture
    c. Post-operative hemorrhage (intraluminal and intraabdominal)
    d. Early mechanical intestinal obstruction (Roux limb, biliopancreatic limb, common channel)
    e. Port-site hernia
    f. Internal hernia (2.4.70.1)
    g. Nutritional deficiencies / malnutrition (1.4.11)

B. Benign Upper GI Surgery

1. Understand the pathophysiology, epidemiology, natural history and surgical options for management of gastroesophageal reflux disease (2.4.2)
2. Understand the pathophysiology, epidemiology, natural history, classification and surgical options for management of hiatal / paraesophageal hernias (2.4.1)
3. Understand the pathophysiology, epidemiology, natural history, and classification for primary motility disorders of the upper GI tract (2.4.7)
    a. Achalasia
    b. Scleroderma
    c. Diffuse esophageal spasm
4. Demonstrate appropriate pre-operative assessment and work-up for patients with GERD (2.4.1)
5. Demonstrate appropriate pre-operative assessment and work-up for patients with hiatal / paraesophageal hernias (2.4.1)
6. Describe advantages and disadvantages, as well as types of complete and partial fundoplication for management of GERD (2.4.2)
7. Describe and be able to demonstrate operative approach for:
    a. Laparoscopic Nissen fundoplication (3.5.7)
    b. Laparoscopic Toupet fundoplication (3.5.7)
    c. Laparoscopic Dor fundoplication (3.5.7)
    d. Laparoscopic paraesophageal hernia repair with and without fundoplication(3.5.7)
    e. Acute gastric volvulus (3.4.28)

8. Understand and demonstrate appropriate diagnosis and management of common post-operative complications following benign upper GI surgery:
    a. Acute herniation of fundoplication into mediastinum
    b. Esophageal and/or gastric perforation (3.418, 3.4.22)
    c. Dysphagia
    d. Gastroparesis
    e. Gas bloat
9. Describe work-up, medical and surgical management options for patients with recurrent upper GI symptoms post previous hiatal hernia repair with/without fundoplication
10. Patient positioning to optimize patient safety and to facilitate access during MIS procedures
11. Safe access to the peritoneal cavity using open and closed techniques Port site selection, placement, and closure, Laparoscopic placement of sutures and Hemostasis (3.413-3.3.17)

C. Endoscopy of the Upper GI Tract

1. Understand indications and contraindications for diagnostic upper endoscopy (1.4.10, 3.18, 3.46-12, 3.5.1-3)
2. Understand indications and contraindications for therapeutic upper endoscopy
    a. PEG tube +/- jejunal extension insertion (3.4.11, 3.4.20)
    b. Endoscopic balloon dilation
    c. Endoscopic banding
    d. Radiofrequency ablation
    e. Endoscopic mucosal resection
    f. Endoscopic stent placement
    g. Endoscopic clip placement
3. Recognize common pathologies of upper GI tract (esophageal and gastric neoplasia, esophageal and gastric varices, esophagitis, Barrett's esophagus, gastric polyps, GAVE, celiac disease, hiatal hernia, peptic ulcer disease, Cameron's ulcers)
4. Perform diagnostic upper endoscopy (3.46-12)
5. Perform components of therapeutic upper endoscopy (3.46-12)

Technical Competencies – Medical Expert

A. At the end of this rotation the Senior / Chief Residents will be able to:

1. Competently undertake endoscopic procedures of the upper GI tract diagnostic and some therapeutic (3.46)

2. Competently perform a laparoscopic enteroenterostomy as part of a Roux-en-Y gastric bypass (3.4.25)
3. Competently perform a laparoscopic sleeve gastrectomy (3.4.25)
4. Competently reduce an internal hernia and repair mesenteric defects using a laparoscopic approach (
5. Assist with and/or perform a laparoscopic Nissen fundoplication (3.5.7)
6. Assist with a laparoscopic paraesophageal hernia repair (3.5.7)
7. Assist with creation of the gastric pouch and gastrojejunal anastomosis as part of gastric bypass procedure (3.4.25)

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	Part A	4

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
	Direct observation by supervisor Part B (MSF) Direct observation by members of the health care team	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)	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
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

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* 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 Priority on this rotation for community setting criterion	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
C5: Performing procedures on the stomach and duodenum	Direct observation by general surgeon or subspecialty trainee	At least 6 observations by faculty At least 2 of each surgical task At least 1 resection of stomach in a malignant case At least 2 different observers	12
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	12

EPA	Observation	Specific Criteria (Contextual Variables)	Number Req'd
		At least 2 of each surgical task	
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
C19: Performing esophagogastroduodenoscopy	Direct observation by general surgeon, subspecialty surgeon, gastroenterologist or subspecialty trainee	At least 2 therapeutic procedures 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

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

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