Regulations and Syllabus

for

Fellowship

In Upper Gastrointestinal Surgery and Endoscopy

FCS GI S&E (ECSA)

2021 edition

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1. INTRODUCTION

The College of Surgeons of East Central and Southern Africa (COSECSA) awards Membership (MCS) and Fellowship (FCS) qualifications. Approved trainee surgeons shall be trained in the hospitals of the region with guidance and support provided by the College.

The Fellowship examination in upper gastrointestinal surgery and endoscopy leads to the qualification of Fellow of the College of Surgeons of East Central and Southern Africa, FCS GES (ECSA). This fellowship is recognition that the candidate has reached the level of knowledge, understanding and practice of surgery sufficient to practice independently at a consultant or specialist level. It should be recognised however that surgery is not a static art and fellows should continue to increase knowledge and skills by means of research, conferences meetings and reading.

2. REGISTRATION AS A TRAINEE

All candidates for the FCS in upper gastrointestinal surgery and endoscopy examination are required to register as trainees with the College. Applications to register as a trainee must be made on COSECSA application forms which are available from the College country representative (CCR)/COSECSA Website. These should be completed and returned to the CCR accompanied by certified copies of certificates showing MCS or equivalent examination.

A registration fee should be given to the CCR or his representative. On receipt of the registration fee, the CCR will give the candidate:

1. a copy of the examination regulations and syllabus
2. a log book
3. a list of recognized hospitals and approved courses
4. Assessment forms to be filled in at the end of every training post by the trainee and the supervising consultant.
5. a recommended reading list for the relevant examination
6. an application form to sit the examination
7. a registration number which remains unique to the candidate

3. TRAINING REQUIREMENTS

Academic

Candidates for the fellowship in Gastroenterology surgery and endoscopy should normally be holding a Fellowship or Master of Medicine in general surgery that is acceptable to the Examination and Training Committee of the College of Surgeons of East, Central and Southern Africa (COSECSA).

Training Posts

Candidates holding FCS or MMed postgraduate qualification in general surgery or equivalent will spend a minimum of four semesters training in upper gastroenterology surgery and endoscopy. The time will be
spent in hospitals accredited by Cosecsa to train upper gastrointestinal surgery and endoscopy provided that these units deal with both emergency and elective upper GI surgery and have upper endoscopy services. Whenever possible, one to three months of the two years may be spent outside the region in a post that has been prospectively agreed on. This post may be in an elective unit.

Candidates are reminded that it is in their interests to experience a wide spectrum of surgical disciplines. Forms to fill in for each training post are provided for each candidate.

4. LOGBOOK

During the training period candidates must keep an electronic logbook prospectively recording all their training experience. The e-logbook should be available for inspection at any time by the COSECSA programme director and Country Representative (CCR). Consolidation sheets should be filled in at the end of every post or annually for posts longer than one year, and a final consolidating sheet for the whole training period. The e-logbook should also contain details of all courses attended and the trainee and post assessment forms for the whole training period. More detail on completing logbooks is provided in the logbook itself.

Before submission to the examination the programme director and CCR should check the e-logbook for completion, fill in and sign a checklist which remains at the front of the e-logbook.

At the August council meeting, the CCR will hand over to the Examinations and Credentials Committee Panel head, a copy of the check list together with copies of the Training post assessment form, Trainee assessment form and the final consolidation sheet (up to August) of all the candidates taking the examination that year.

Before the time of clinical and oral examination the e-logbook should be handed to the examination administration secretary. Candidates will not be allowed to sit for the examination if this is not done.

5. APPLICATION TO SIT EXAMINATIONS

Candidates who are registered as trainees may sit the examination at the end of the FCS training provided that they have completed 2 years (4 semesters) of training by that time. Application for the examination must be made by March 1st of the year of the examination. Candidates should submit a completed examination application form to the CCR with the college set examination fee. On receipt of the form and the fee, candidates will be informed by the CCR of the precise times dates and places for the exams.

By applying for the examination, a candidate agrees to be bound by the rules and regulations of the College. If a candidate withdraws from an exam more than 12 weeks before the exam is due, then the fee can be transferred to the next exam date. Fees will not normally be returned if the candidate withdraws permanently, unless due to special circumstances as determined by the college.

Candidates must pass the examination within two years of their first attempt. After this they will not be allowed to resit. A total of four attempts only will be allowed.
6. **EXAMINATION FORMAT AND CONDUCT**

The standards of the examination will be set by the examination committee, drawn from members of the council of the college, which will recommend those standards required by both examiners and candidates. A panel of examiners will be chosen by the examination committee from among Fellows of the College for each examination. A register of examiners will be kept by the chairman of the examination committee. An examination board will be constituted for each type of examinations, comprising the chairman of the examination committee, two members from each examination panel and at least one external examiner. The role of the external examiners is to:

a) Moderate the written question papers

b) Assist with the examination of candidates

c) Assist with any pass/fail viva

d) Provide external independent assessment of the examination

e) Report on the conduct of the examination to the examination committee

The examination shall comprise of a theory, clinical and oral parts

The written FCSGI (ECSA) exam will comprise two 3 hours and will consist of 100 MCQ and EMQ questions. A minimum score of 60% will be required to pass.

Written examinations may be held in any of the countries of the region. In exceptional circumstances the examination committee may approve an examination site outside the region. The written examinations are held simultaneously on the first Wednesday of September, at a recognized examination centre with impartial invigilation.

The examination papers will be set by members of the examination committee and independently moderated by an external examiner. They will be sent to COSECSA administration office in Arusha by 1st March and will be stored confidentially there. One copy per candidate will then be sent by courier or secure delivery to a named country representative at all sites that are holding examinations 2-3 days before they are held.

After the examination the CCR will make photocopies of the candidates’ completed exam scripts for safekeeping, and send the originals by courier or secure delivery to the relevant panel chairman. Marking of the examination paper will be coordinated by the panel chairman.

The oral part of the examination will comprise the following:

An oral examination (viva) which will take place approximately 3 months after the multiple choice exam, in a country and at a site designated by the college. There will be two 30 minute orals covering Gastroenterology surgical emergencies and critical care, principles of Gastroenterology surgery and endoscopy including operative surgery and applied anatomy, clinical surgery and pathology, based on the experience demonstrated in the candidate’s logbook.
The clinical examination will be in a form of OSCE. The clinical examination will take place at the same time and at the same site as the oral. This will comprise eight 20 minute cases. A closed marking scheme will apply for clinical and orals

Candidates have to pass the written, clinical and oral sections of the examination in order to pass overall. If a candidate scores a mean of 49% in one section and has over 50% in the other two sections then he or she will be given a pass/fail viva. The chairman of the examination panel will select two examiners, excluding those who had failed the candidate, together with an external examiner, to conduct this viva.

The chairman of the examination panel will endeavour to minimise the chance of a candidate being examined by an examiner from his or her own institution.

The panel of examiners will give the results to the examination board who will meet on the day of examination. The board will then approve the results on behalf of Council and publish them.

For each candidate who fails the examination, the panel will allocate a Fellow of the College (usually a member of the panel) who will communicate with the candidate and offer advice as may be indicated. Details of marks will not be given. If a candidate fails his clinical and oral examination then he may attempt the clinical and oral examination for a maximum of 2 more times without having to rewrite the written examination.

Appeals against results must be made in writing to the Council within 60 days of the completion of the examination. The President of the College will then appoint an impartial committee to investigate the appeal, and require a written report to be filed by the Chairmen of the examinations panel and board. The Appeals committee will then take all considerations and its own findings into account and recommend a decision which will remain final and binding.

7. OVERVIEW OF TRAINING PROGRAMME

Topics and practical procedures in italics are not practiced widely in this region so the candidates will not be expected to know about them in detail, or to have practical experience

7.1.0 Importance of the upper Gastroenterology Training programme

In general, Gastroenterology surgery and endoscopy is a sub-specialty of surgery dealing with the management of diseases related to the upper gastrointestinal tract organs namely oesophagus, stomach, small and lower gastrointestinal tract organs namely the large intestine, rectum and anus. Specialization may be in upper gastrointestinal surgery as is the case in this fellowship programme or lower gastrointestinal or colorectal surgery. It is a well-recognized specialty today. Diseases of the GI system are among the most common disorders in sub-Saharan Africa. COSECSA, recognizing the need and the importance of GI surgery, has recognized the importance of Surgical Gastroenterology. This upper gastrointestinal surgery and endoscopy COSECSA programme will fulfill the 3 objectives of good surgical training, namely, patient care, teaching and research. Upper Gastroenterology specialists will possess a range of attributes, including a wide-ranging knowledge base, the capacity to produce a
relevant differential diagnosis based on an accurate history and physical examination, an understanding of the indications and contraindications for diagnostic and therapeutic procedures, skill at performing these procedures, the ability to think critically, and an appreciation of the humanistic and ethical aspects of medicine. Such attributes can emanate only from a clinical training program that provides a firm foundation in pathophysiology as well as abundant exposure to patients under the supervision of experienced, thoughtful educators. This exposure must be long enough for trainees to understand the natural history of disease and the impact of treatment both on the disease and on the patient. Instructors in procedures must impart a thoughtful, cost-conscious approach to the use of technology as an extension of the sub-specialist's dexterity rather than as an end in itself. Facilities must be available for trainees to participate actively in research as a means of nurturing the inquisitive thought processes demanded of skilled consultants, to create new knowledge, and to improve patient care. All of these activities must be accompanied by compassion, humanism and a dedication to the patient as a person.

8. GENERAL ASPECTS OF TRAINING

1. Educational Program

Gastrointestinal surgery training programs must provide an intellectual environment for acquiring the knowledge, skills, clinical judgment, attitudes, and values of professionalism that are essential to the practice of gastroenterology. “Professionalism in medicine requires the surgeon to serve the interests of the patient above his or her self-interest. Professionalism aspires to altruism, accountability, excellence, duty, service, honour, integrity, and respect for others. The elements of professionalism encompass a commitment to the highest standards of excellence in the practice of medicine and in the generation of knowledge, a commitment to sustain the interests and welfare of patients, and a commitment to be responsive to the health needs of society.”

The program also must stress the role of gastroenterologists as consultants and the need to establish the skills necessary to communicate effectively with referring doctors. The objectives of training can be achieved only when the program leadership, supporting staff, faculty, and administration are fully committed to the educational program and when appropriate resources and facilities are available. While it is recognized that trainees provide substantial service to their teaching hospital, service commitments should never compromise the achievement of educational goals and objectives. Every aspect of training should include the cultivation of an attitude of skepticism and inquiry and a dedication to continuing education that will remain with the trainees throughout their professional careers. A major contributor to the enhancement of a scholarly attitude is active participation in one or more research projects, ideally followed by presentation of the work at a national meeting and publication of a paper in a peer-reviewed
journal and to produce well-trained gastrointestinal surgeons capable of competently managing surgical gastrointestinal conditions and deliver high quality gastrointestinal services to patients.

8.2. Underlying Philosophy of the Programme

Upper Gastroenterology surgery is a sub-specialty dealing with the management of diseases related to the upper gastrointestinal tract involving the organs namely oesophagus, stomach, small intestines. It is a well-recognized specialty. Diseases of the upper GI system are among the most common disorders in Africa.

The national needs for gastrointestinal surgeons are enormous due to huge gastrointestinal disease burden. Every person with a significant gastrointestinal condition deserves to receive proper surgical gastrointestinal care. The philosophy of this Fellowship programme is to produce gastrointestinal surgeons and GI endoscopists to the constituent countries population by providing well-trained practitioners in the specialty of upper Gastroenterology surgery and endoscopy. This will be achieved by training suitable surgeons into knowledgeable, caring and compassionate upper surgical gastrointestinal surgeons and endoscopists who are proficient to provide educational information, diagnostic, therapeutic, counseling and preventive services to the individual and to the community. The Programme will prepare students to be life-long learners after graduation with affinity for keeping abreast of developments in the field so as to provide the best care available for each patient they encounter and the best services to the community. The graduates from the Programme will, in addition, provide leadership for the health care team they work in, and will be educators for students, junior colleagues, peers, other health care professionals, patients and members of the community.

9.0. PROGRAMME GOAL

The goal of this training programme is to produce a surgeon who can provide tertiary care for patients with complicated problems related to the gastrointestinal tract. At the end of the training, the trainee should be:

1. A competent and caring compassionate surgeon who follows high standards of ethical practice.
2. A thinking surgeon who applies his knowledge based on best current evidence, to the problems gastrointestinal surgery.
3. A competent surgeon who performs complicated major gastrointestinal surgery.
4. A good teacher who shares his skills and knowledge with his colleagues.
5. One who constantly updates his knowledge and skill.
9.1. Programme Objectives

In order to achieve the above goals, the following objectives are laid down. The objectives may be considered under 3 domains namely Knowledge (cognitive), Skills (psychomotor) and Ethical principles, Communication and Rational thought (affective). At the end of the training programme the trainee should be able to:

9.1.1. Knowledge

1. Understand etiology, pathophysiology and diagnose gastrointestinal surgical problems on the basis of history and clinical examination.
2. Interpret laboratory investigations, endoscopic and radiological findings in a logical manner and arrive at a reasonable diagnosis.
3. Advise the patient appropriate treatment on the basis of (a) and (b) above.
4. Be proficient in the proper selection of patients for surgery, the timing of surgery and preoperative work up and post-operative care.
5. Manage emergency situations related to the gastrointestinal system, such as gastrointestinal bleeding, acute abdomen, abdominal trauma, etc.
7. Continuously update knowledge and skills, and keep abreast of the latest advances.
8. Teach undergraduate and postgraduate students.
9. Carry out medical research i.e. plans clinical trials and laboratory research.

9.1.2. Skills:

1. Perform endoscopic procedures.
2. Perform elective complex gastrointestinal surgery such as porta-systemic shunts, have exposure to laparoscopic and minimally invasive surgery.
3. Proficient and preoperative work up and post-operative care of the surgical patient, including invasive monitoring.

9.1.3. Ethical Principles:

1. Follow-up high standards of ethical practice.
2. Respect patient’s right and privileges, his/her right to information and right to seek second opinion.
3. Be able to work as member of a team and also provide leadership where necessary.

9.2. Goals of Training

During the programme, trainees should gain an understanding of the following:
1. Anatomy, physiology, and pathophysiology of the oesophagus, stomach and small intestine

2. Gastric secretion and indications for gastric analysis (i.e., measuring gastric acid output).

3. The indications for serum gastrin measurement and secretin testing for the diagnosis of gastrinoma and consequences of hypergastrinemia in both hypersecretory and achlorhydric states; trainees should also gain an understanding of the mechanisms involved in the development of secondary hypergastrinemia due to low acid states.

4. The natural history, epidemiology, and complications of acid-peptic disorders, including recognition of premalignant conditions (e.g. for the treatment of gastroesophageal reflux disease, such as application of radiofrequency, energy injection therapy, and mechanical devices (see Training in Endoscopy)

5. Familiarity with capsule endoscopy and its applicability to the evaluation of upper gastrointestinal disease.

6. Trainees should learn to perform, read, and interpret oesophageal pH probe tests, including wireless technology, oesophageal impedance testing, and oesophageal motility studies (see Training in Motility and Functional Illnesses).

7. Trainees should gain experience in interpreting plain films of the abdomen, barium examinations of the upper gastrointestinal tract, ultrasonography, abdominal computed tomographic scans, magnetic resonance imaging, angiography, and somatostatin receptor scintigraphy (see Training in Radiology).

8. Understanding invasive and noninvasive techniques for diagnosing *H. pylori* infection.

9. Understanding the role of prostaglandins in mucosal protection, the importance of prostaglandin inhibitors (NSAIDs, aspirin) in causing ulcers, and the effects of selective cyclooxygenase-2 (COX-2) inhibitors on mucosal integrity in the upper gastrointestinal tract, on platelet function, and on the pathogenesis of thrombotic events. Other potential effects of COX inhibition, such as possible beneficial benefits in the treatment of dysplasia in Barrett’s oesophagus should be discussed.

9.3. Training Process

Trainees must acquire a thorough knowledge of appropriate history-taking, which should consist of family, genetic, psycho social, and environmental histories, including a detailed history of prescription and over-the-counter (non-prescription) drug use, particularly NSAIDs and aspirin, and the ability to perform a comprehensive and accurate physical examination in patients with acid-peptic disease. This should include an examination of the whole patient. Trainees should be able to arrive at an appropriate differential diagnosis, be able to outline a logical plan for specific and targeted investigations pertaining
to the patient’s complaints, and be able to design an appropriate scheme of management and follow-up. Trainees must develop expertise under direct supervision in performing and interpreting all of the procedures and diagnostic tests that are routinely used in the evaluation and treatment of patients with acid-peptic disorders (see Training in Endoscopy). This experience should include the indications, limitations, technical aspects, and complications of the following procedures as well as an understanding of the benefits and dangers of moderate sedation:

1. Upper intestinal endoscopy, both elective and emergent, including proficiency in the use of the endoscopic treatment modalities for haemorrhage (including injection therapy, cautery, banding, and clipping), biopsy, and polypectomy. It is suggested that trainees become familiar with the placement of radiotelemetry devices and have experience with endoscopy in patients with surgically altered anatomy (fundoplication, ulcer surgeries, gastric bypass)

2. Dilatation of benign and malignant oesophageal strictures

3. The performance and interpretation of oesophageal motility studies, 24-hour pH monitoring including wireless technology, and the interpretation of gastric secretory studies. It is suggested that trainees gain familiarity with impedance testing (see Training in Motility and Functional Illnesses).

4. Trainees should gain experience in the interpretation of radiological studies of the upper gastrointestinal tract, including contrast gastrointestinal examinations, ultrasonography, computed tomographic scans, magnetic resonance imaging, somatostatin receptor scintigraphy, and angiography

5. Indications and interpretation of studies for specific entities, such as hypersecretory states, *H. pylori*, and other infections of the upper gastrointestinal tract, particularly acquired immunodeficiency syndrome (AIDS)-related disorders

6. It is suggested that trainees gain a working knowledge of upper gastrointestinal tract pathology, such as mucosal biopsies for gastritis, Barrett’s oesophagus, and malignant conditions (see Training in Pathology).

9.4. Programme Competence Objectives

This Fellowship of Surgical Gastrointestinal surgery program will prepare specialist surgeons who can accomplish the following:

9.4.1. Knowledge

1. Demonstrate adequate knowledge for patient care with various Gastrointestinal Surgical conditions

2. Demonstrate understanding of leadership and teamwork principles in addressing various
surgical Gastrointestinal diseases

3. Demonstrate adequate knowledge in conducting research
4. Demonstrate knowledge of Supervision and feedback to subordinates.
5. Demonstrate knowledge in prevention of Gastrointestinal conditions.

9.4.2. Skills

1. Provide effective and appropriate care to patients with various conditions in Gastrointestinal depending upon resources
2. Perform relevant diagnostic procedures for the various Gastrointestinal conditions
3. Perform relevant therapeutic procedures for the various Gastrointestinal conditions
4. Design, conduct and disseminate research findings in the field of gastrointestinal ethically.
5. Prepare a presentation in selected topic of Gastrointestinal for MD and MMed Students.
6. Provide effective teaching during daily ward rounds to learners of various levels
7. Provide preventive services for upper Gastrointestinal diseases and their complications.

9.4.3. Attitudes and Values

1. Lead a team so as to address the various Surgical Gastrointestinal health issues.
2. Demonstrate effective collaboration with other disciplines including nurses, pharmacist, laboratory personnel and social workers and do various consultancies.
3. Seek assistance from superiors and colleagues
4. Work within the prescribed duty hour regulations.

9.5. Competency Domains and Core Competencies

The Fellowship in surgical gastrointestinal program competencies are derived from the eight competency domains. Graduates of this program will have achieved competencies as listed below:

9.5.1. Competency Domain: Relationships with Patients, Clients and Communities

1. Establish constructive relationships and communicate effectively with surgical patients, and their families/or communities in order to address their needs and preferences
2. Provide specialized gastrointestinal surgical services to individuals and groups that is appropriate to their different backgrounds
3. Demonstrate the ability to communicate specialized gastrointestinal surgical issues and polices effectively to the public.
9.5.2. Competence Domain: Relationships with Colleagues

1. Listen and take advice from fellow surgical specialist and other health professionals.
2. Motivate colleagues and subordinates.
3. Contribute effectively to teamwork.
4. Work effectively with other health professionals.
5. Demonstrate effective oral and written specialized Gastrointestinal communication skills with colleagues and other health professionals.

9.5.3. Competence Domain: Teaching Skills

1. Deliver effective upper Gastrointestinal Surgery promotion messages to educate patients and communities.
2. Prepare a presentation in a topic of upper Gastrointestinal surgery suitable for health professionals and medical students.

9.5.4. Competence Domain: Maintaining Good Practice

1. Demonstrate the ability to evaluate one’s own performance and practice in Gastrointestinal surgery.
2. Exhibit a capacity to regularly seek information necessary to improve practice in upper gastrointestinal surgery.
3. Demonstrate the ability to apply evidence-based decision making in the field of surgical Gastrointestinal services.
4. Recognize one’s abilities and limitations and know when to request assistance.
5. Demonstrate the capacity to participate in applied surgical Gastrointestinal activities.
6. Demonstrate the ability to use information technology to optimize learning.
7. Demonstrate leadership and managerial skills.

9.5.5. Competency Domain: Working within the System and Context of Health Care

1. Demonstrate knowledge on the current healthcare system functions (structures, policies, regulations, standards and guidelines).
2. Work effectively in various specialized health care delivery settings and systems (hospitals, government, ministries, and communities).
3. Demonstrate ability to coordinate and implement Gastrointestinal surgery service delivery and health interventions within the health care system.
4. Recognize and incorporate considerations of cost effectiveness into surgical health service.
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5. Recognize and incorporate considerations of Gastrointestinal surgery patients’ cost burden into health service delivery

6. Demonstrate the understanding and promote quality care in health systems through audits, accreditations, and/or evaluations

7. Demonstrate the ability to identify upper gastrointestinal system challenges, errors and implement potential solutions

9.5.6. Competency Domain: Professionalism

1. Maintain ethical standards (confidentiality, informed consent, avoid practice errors, avoid conflicts of interest)

2. Apply entrepreneurial skills for advancement of practice in the superspeciality of upper gastrointestinal surgery

3. Show sensitivity and responsiveness to diversity (culture, age, socioeconomic status, gender, religion, and disability)

4. Demonstrate awareness of the upper gastrointestinal surgery needs of aging patients with gastroenterological conditions.

5. Show respect, compassion, and integrity while interacting with patients with gastrointestinal surgery conditions.

6. Advocate and implement fair national distribution of health care resources

7. Describe and discuss the implications of basic ethical principles, including confidentiality, informed consent, truth telling, and justice, for the care of patients with gastrointestinal surgery conditions.

8. Demonstrate professionalism and high ethical standards in gastrointestinal surgery practice, specifically competence, honesty, integrity, compassion, respect for others, professional responsibility and social responsibility.

9.5.7. Competency Domain: Professional Knowledge

1. Apply knowledge of anatomy, physiology and pathophysiology of upper gastrointestinal system in preventing, diagnosing and managing various Gastrointestinal system conditions.

2. Apply the pharmacodynamics and pharmacokinetics knowledge to render effective and cost conscious therapeutic agents and interventions specific to patients with gastrointestinal system conditions.
3. Develop management plans for patients with gastrointestinal conditions.
4. Justify the decision to specific management plans of patients with various gastrointestinal system surgical conditions
5. Summarize the various advantages and disadvantages of various upper gastrointestinal system surgical interventions.
6. Use knowledge of clinical reasoning to solve problems in gastrointestinal system.
7. Judge when to use invasive versus non-invasive gastrointestinal system interventions in managing patients with upper gastrointestinal system conditions

9.5.8. Competency Domain: Practical/ Clinical Skills

1. Employ appropriate technique for conducting complete and relevant physical examination in a systematic manner for patients with upper gastrointestinal system conditions.
2. Perform invasive gastroenterological interventions in making a diagnosis and managing patients with gastrointestinal system conditions.
3. Evaluate patients with Gastrointestinal system conditions so as to formulate accurate hypotheses to serve as the basis for making diagnostic and treatment decisions
4. Demonstrate the ability to organize, record, research, present, critique, and manage information of patients with Gastrointestinal system
5. Employ a comprehensive, multidisciplinary approach to the care of patients with Gastrointestinal system conditions that integrates biomedical and psychosocial considerations
6. Demonstrate the ability to formulate and prioritize correct and appropriate plans for management of patients with Gastrointestinal system conditions
7. Demonstrate the ability to gather focused information, in an organized manner, appropriate to the clinical situation and patient ability to understand
8. Demonstrate confidence and comfort with the primary provider role and the provision of longitudinal care

9.6. Programme Learning Outcomes

The Surgical gastrointestinal system Fellowship program will contribute to the following upon graduation of the trainee:

1. Improved quality of life of individuals with Gastrointestinal system surgical diseases and community at large
2. Reduced Gastrointestinal system surgical disease burden in the community.
3. Reduced morbidity and mortality resulting from Gastrointestinal system surgical illnesses.

4. Influence general health policies Gastrointestinal system surgery.

5. Conduct research on Gastrointestinal system surgical conditions and disseminate the results in reputable scientific periodicals

10. TEACHING METHODS AND LEARNING METHODS

Will include:

1. Ward and outpatient management.
2. Learning correct surgical technique. Assisting and performing operations.
4. Combined surgical gastroenterology and medical gastroenterology teaching rounds.
5. Formal case presentations and discussions.
6. Topic discussion in which a topic relating to a problem in management is discussed.
7. Journal club (weekly)
8. Research Review. Thesis and research projects in unit are discussed.
9. Guest and in-house lectures.
10. Participation in conferences, workshops, CMEs (conducted by NBE, other institutions etc.), seminars.
11. Surgical Audit (morbidity and mortality meeting)

11. COMPETENCE DOMAIN: PROFESSIONAL KNOWLEDGE

11.1. Broad competence statement:

The trainee will demonstrate understanding of basic sciences and their application to GIT conditions. The trainee will demonstrate knowledge of the manifestations and diagnosis of GIT systems as well as knowledge for managing various conditions of these systems.
11.2. Competencies (learning objectives)

1. Demonstrate knowledge of applied basic sciences in the management of gastroenterological diseases.
2. Describe surgical Gastrointestinal diseases
3. Describe relevant diagnostic modalities in managing surgical Gastrointestinal diseases.

11.3. Methods of Instruction

Seminars, small groups discussions using real patients,

11.4. Methods of assessment

Written examinations consisting of Two 3 hours theory papers comprising of MCQs, EMQs and Structured short answer essay questions, Clinical examination as OSCE and viva.

12. COMPETENCY DOMAIN: CLINICAL/PRACTICAL SKILLS

12.1. Broad competence statement

The trainee will perform advanced clinical examination, interpret clinical manifestations and diagnoses surgical Gastrointestinal diseases as well as interpret the various laboratory test results and use them for the management of patients with Gastrointestinal surgical diseases. Learners will develop differential diagnosis and carry out management of patients with Gastrointestinal surgical diseases under minima supervision.

12.2. Competency Learning objectives

1. Perform comprehensive clinical surgical of patients with Gastrointestinal diseases
2. Perform relevant diagnostic and therapeutic procedures for the various surgical Gastrointestinal diseases
3. Interpret investigation results appropriately
   a. Lead a team so as to address the various surgical Gastrointestinal diseases
   b. Provide effective teaching in applied basic sciences, manifestations and diagnostic evaluation of patients with surgical Gastrointestinal diseases

12.3. Competence Domain: Relationship with Patients, Clients and Communities.
12.3.1. Broad competence statement:

The learner will engage and communicate with patients, clients and communities and to build relationship for the purposes of information gathering, guidance, education, and support; interact with patients with surgical Gastrointestinal diseases. Interact with families and clients under a broad range of clinical and practical circumstances.

12.3.2. Competencies (Learning objectives)

1. Establish constructive relationships with patients, clients and/or communities in order to address their needs.

2. Provide service to individuals and groups that is appropriate to the different background

3. Demonstrate the ability to communicate health issues and policies effectively to the public

12.4. Competency domain: Relationships with Colleagues

12.4.1. Broad competence statement: To trainee will engage with peers, teachers, and other healthcare professionals. The trainee will be able to engage and communicate with colleagues and to build relationships for the purposes of information gathering, guidance, mentoring, education, and support; interact and work with colleagues, and build teams working under a broad range of personal and practical/clinical circumstances.

12.4.2. Competencies (Learning objectives)

1. Interacts with colleagues, and other health professionals in a respectful manner including appropriate dress, verbal and non-verbal behavior

2. Demonstrate good professional conduct to colleagues.

12.5. Competence domain: Maintaining Good Practice

12.5.1. Broad Competency Statement

The trainee will be able to investigate and evaluate patient care practices, appraise and assimilate scientific evidence to improve surgical patient care practice using a systematic methodology, appraise and assimilate evidence from scientific studies related to GIT surgical condition, Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness, use information technology to manage information and access online health profession information in support of their own education and
the learning of others and participate and be able to organize continuing professional development programmes in GIT surgery.

12.5.2. Competencies (Learning objective)

1. Demonstrate the ability to evaluate one’s own performance and practice
2. Exhibit a capacity to regularly seek information necessary to improve professional practice (life-long learning)
3. Demonstrate the ability to apply evidence-based decision making
4. Recognize one’s abilities and limitations and know when to request assistance.
5. Demonstrate the ability to use information technology to optimize learning

13. COURSE CONTENT

13.1. Applied Basic Science in Gastrointestinal system

1. Applied physiology of Gastrointestinal system
2. Gastrointestinal system pathology

13.2. Manifestations of surgical gastroenterological diseases

1. Dysphagia
2. Odynophagia
3. Chest pain of oesophageal origin
4. Abdominal pain
5. Nausea and Vomiting
6. Constipation
7. Diarrhea
8. Anorexia
9. Weight loss
10. Upper GIT bleeding
11. Jaundice

13.3. Diagnostic evaluation of a patient with upper gastroenterological diseases

1. History and physical examination
2. Radiographic techniques
3. Nuclear medicine techniques and their application in Gastrointestinal system
4. Endoscopy, abdominal ultrasound and other diagnostic procedures
5. Principles of ERCP
13.4. Pre-operative evaluation

1. History and physical examination
2. Microbiologic diagnosis of upper GI tract infection
3. Radiographic techniques
4. Nuclear medicine techniques and their application in Gastrointestinal system
5. Endoscopy, abdominal ultrasound and other diagnostic procedures
6. Principles of ERCP
7. Pre-operative evaluation

13.5. Clinical skills

1. Ward work Participation in the management of admitted patients
2. Outpatient clinic attendance and participation in the management of outpatients
3. Participation in diagnostic and therapeutic procedures

13.6. Procedures

13.6.1. Non-Invasive Procedures

1. Doing and interpreting abdominal ultrasound
2. Participating in imaging procedures in Upper gastrointestinal system
3. Interpreting X-rays, CT/MRI scans and radionuclide scans
4. Participating in imaging procedures in upper gastrointestinal system

13.6.2. Invasive Procedures

1. Performing and interpreting Upper GI endoscopy
2. Performing upper endoscopic interventional procedures e.g. sclerotherapy and variceal rubber banding of oesophageal varices and stenting,
3. Paracentesis

14. SYLLABUS

14.1. Oesophagus

1. Anatomical detail, physiology of swallowing,
2. Oesophageal manometry, pH monitoring
3. endoscopic ultrasound and other diagnostic techniques,
4. brush cytology,
5. vital staining,
6. contrast imaging and CT scan,
7. congenital lesions (TOF), Zenker’s diverticulum, epiphrenic diverticulum,
8. esophageal trauma, rupture-spontaneous or introgenic,
9. corrosive burns- detection, evaluation and management,
10. esophageal motility disorders,
11. Gastro-esophageal reflux disease (GERD),
13. Barrett’s esophagus,
14. Oesophageal malignancy: adenocarcinoma and squamous carcinoma
15. Various esophageal operations-
   (a) Diverticulectomy,
   (b) Excision of leiomyoma,
   (c) Oesophagostomy, myotomy,
   (d) Fundoplication procedures
   (e) Oesophageal resection (Ivor Lewis, McKeown, Transhiaatal),
   (f) Oesophagogastrostomy,
   (g) Gastric pull-up,
   (h) Gastric and colonic bypass,
   (i) Complications of oesophagectomy,

14.2. Stomach and Duodenum
1. Anatomical details,
2. physiology of gastric secretions,
3. Gastroduodenal motility,
4. Diaphragmatic hernia (congenital and acquired),
5. Gastric volvulus,
6. Pyloric stenosis in adults,
7. Foreign bodies (bezoars),
8. Stomach trauma,
9. H. pylori in gastric diseases,

10. Peptic ulcers,

11. Zollinger-Ellison syndrome,

12. NUD,

13. Gastric tumours: Benign and malignant

14. Gastric surgery:-

(a) Vagotomy and pyloric drainage,

(b) Gastrojejunostomy,

(c) Bariatric gastric tube creation,

(d) R-en-Y oesophagojejunal anastomosis,

(e) Gastrectomy

(f) Postgastrectomy syndromes and complications.

14.3. Peritoneum, Omentum, Retropertitoneum

1. Recesses, reflections,
   a. Subdiaphragmatic spaces,
   b. peritonitis primary secondary and tertiary,

2. Tuberculosis,

3. Mesenteric cyst,

4. Pseudomyxomaperitonei, ascites (diagnosis, investigation and management),

5. Retroperitoneal tumors,

6. Inguinal hernia,

7. ventral hernias,

8. peritoneoscopy.

14.4. Small Intestine

1. Mesenteric vascular anatomy,

2. Intestinal physiology,

3. Ladd’s band in adults
4. Malrotation in adults
5. Volvulus,
6. Hernia,
7. Intestinal obstruction,
8. Ileocaecal TB,
9. Lymphoma,
10. Tumors of small intestine,
11. Meckel’s diverticulum,
12. Adult Intussusception,
13. Small bowel gangrene,
14. Intestinal resections,
15. Lengthening and transplantation,
16. Mesenteric ischaemia,
17. Short gut syndrome,
18. Small bowel fistulae,
19. Crohn’s and other inflammatory bowel diseases
20. Enteral feeding, home/parenteral nutrition.

14.5. General Topics

1. Tumour genetics- oncogenes,
2. Tumor markers,
3. Systemic Inflammatory. Response Syndrome (SIRS),
4. Multiple organ dysfunction syndrome (MODS),
5. Immunology in relation to transplantation and rejection,
6. Intensive care and respiratory support,
7. Surgical nutrition- parenteral and enteral,
8. Iatrogenic complications of surgery like
enterocutaneous fistulae,

9. Intrabdominal sepsis/collections,

10. Research methodology and Surgical audit.

14.6. Operative Procedures

Surgical procedures, candidates are expected to perform or assist:

14.6.1. Oesophagus

1. Heller’s Operation

2. Fundoplication

3. Transhiatal Esophagectomy THE + GPU

4. Transthoracic Esophagectomy TTE + GPU

5. Colonic pull up

6. Endoscopic and laparoscopic anti-reflux surgery

14.6.2. Stomach and Duodenum

1. TV + G.I./Pyloroplasty

2. Billroth I & II gastrectomy

3. Radical gastrectomy

4. Excision of GIST tuours

14.6.3. Small Intestine: Jejunum and Ileum

1. Feeding jejunostomy

2. Typhoid ileal perforation

3. Resection and anastomosis

4. Ileostomy closure

15. APPENDIX 1. RECOMMENDED READING MATERIALS

Latest edition of the following Books


3. O. James Garden, Andrew W. Bradbury and John Forsythe; Principles and Practice of Surgery, Publisher: Churchill Livingstone.


10. G. Keen and Farndon; Operative Surgery and Management: Butterworth and Heinmann.

11. American College of Surgeons-Surgery Principles and Management-Webmed


13. Michael M.Henry; Clinical Surgery: Elsevier – Saunder

Reference Materials (Journals):

1. BMC Physiology Open Access Journal Online ISSN: 1472-6793.

2. Journal of Endocrinology published by BioScientifica Print ISSN: 0022-0795, Online ISSN: 1479-6805.

3. American Journal of Physiology


5. British Journal of Surgery


7. Annals of Surgery


10. British Journal of Surgery

11. Annals of Surgery

12. American Journal of Gastroenterology
13. Journal of Endoscopy
14. Gastroenterology
15. GI Surgery Annual
16. Tropical Gastroenterology
17. Gut
18. Digestive Surgery
19. World Journal of Surgery
20. Recent Advances in Surgery