Regulations and Syllabus relating to Fellowship Examination
In General Surgery
FCSgen(ECSA)

2009 edition
College of Surgeons of East Central and Southern Africa

Fellowship examination in General Surgery leading to the qualification of FCSgen(ECSA)

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1. Introduction

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

The Fellowship examination in general surgery leads to the qualification of Fellow of the College of Surgeons of East Central and Southern Africa, FCSgen (ECSA). This fellowship is a 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 FCSgen (ECSA) 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)/may be downloaded from the 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 of US$300 should be given to the CCR or his representative. On receipt of the registration fee, the CCR will give the candidate:

i) a copy of the examination regulations and syllabus
ii) a log book
iii) a list of recognised hospitals and approved courses
iv) assessment forms to be filled in at the end of every training post by the trainee and the supervising consultant.
v) a recommended reading list for the relevant examination
vi) an application form to sit the examination
vii) a registration number which remains unique to the candidate

3. Training requirements

Academic

Candidates for the fellowship examination in general surgery should normally have passed the membership examination of this college and possess the diploma MCS(ECSA). Exemption to this requirement may be given to those who have passed an equivalent examination such as MMed (Surgery) of one of the constituent countries of the ECSA community, or Fellowship of the Royal Colleges of Surgeons of England, Scotland, Ireland, Australia, or South Africa. The basic surgical training examinations of other colleges and institutions may also be acceptable but each one will have to be reviewed by the Examination and Training Committee of the College before exemption can be given.

Training Posts

Candidates will have to have spent 3 years in recognised supervised training posts in addition to completing the requirements for MCS. Of these three years one and a half years has to be spent in a general surgical unit dealing mainly with adult abdominal surgery. The remainder of the time can be spent in units specialising in other branches of surgery for example, thoracic, urology, trauma, paediatric surgery, plastic surgery, provided that these units deal with emergencies on a regular basis. Six months of the three years may be spent outside the region in a post that has been prospectively agreed with the Examination and Training Committee. 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.

Candidates will also be required to produce at least 6 CPD (CME) certificates of the Surgery in Africa online monthly review course.

Forms to fill in for each training post are provided for each candidate.

4. Logbook

During the training period candidates must keep a logbook prospectively recording all their training experience. The book should be available for inspection at any time by the COSECSA 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 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 CCR should check the logbook for completion, fill in and sign a checklist which remains at the front of the 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.

At the time of clinical and oral examination the 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 (see §2 above) may sit the examination at the end of their third year of FCS training provided that they have completed 36 months 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 examination fee of US$500. 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 to 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 four 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 chosen by the examination committee from amongst 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 diet 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 examiner(s) is to:
a) Moderate the written question papers
b) Assist with the examination of candidates
c) Assist with any pass/fail vivas
d) Provide external independent assessment of the examination
e) Report on the conduct of the examination to the examination committee

The exam comprises written, clinical and oral parts

The written FCSgen (ECSA) exam will comprise two papers:
• The first paper will consist of SINGLE BEST ANSWER MULTIPLE CHOICE QUESTIONS.
• The second paper will consist of EXTENDED MATCHING AND/OR SHORT ANSWER QUESTIONS

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 recognised 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 clinical and 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.

A clinical examination which will take place at the same time and at the same site as the oral. This will comprise six 20 minute cases.

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 country.

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 exam, 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 years 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. Syllabus

The fellowship examination in general surgery of the College is an examination aimed at assessing competence in general surgery at a consultant of specialist level. The syllabus below is an outline of what the candidate will be expected to know. It is not exhaustive, but provides a guideline to the topics candidates should understand and operative procedures with which they should be familiar. It should be noted that section 7.15 includes topics that are not always included in the term ‘general surgery’. This section is included because in this region of Africa many surgeons practice in areas where they might be the only surgeon available or might be covering at night for colleagues in other surgical disciplines. The level of competence expected in the topics of section 7.15 will not be at a specialist level, but the candidate should have a sufficient understanding and skills necessary to provide adequate emergency care.

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

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>PRACTICAL PROCEDURES</th>
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<tr>
<td>7.1 Non Trauma Emergency Surgery</td>
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### Assessment of the acute abdomen

- Biliary tract emergencies
- Acute pancreatitis
- Swallowed foreign bodies
- Gastrointestinal bleeding
- Appendicitis and right iliac fossa pain
- Abdominal pain in children
- Peritonitis
- Acute intestinal obstruction
- Intestinal pseudo-obstruction
- Strangulated hernia
- Intestinal ischaemia
- Toxic megacolon
- Acute ano-rectal sepsis
- Acute presentations of urological disease
- Acute presentations of gynaecological disease
- Scrotal emergencies in all age groups

### 7.2 Trauma Surgery

Assessment of the multiple injured patient including children
- Closed abdominal injuries, especially splenic, hepatic and pancreatic injuries
- Closed chest injuries
- Stab and gunshot wounds
- Arterial injuries
- Injuries of the urinary tract
- Initial management of head injuries and interpretation of CT scans
- Initial management of severe burns

### 7.3 Surgical sepsis

- Superficial sepsis and abscesses
- Pyomyositis
- Abdominal sepsis
- Empyema and thoracic sepsis
- Intracranial sepsis
- Tuberculous disease of the chest and abdomen

### 7.4 Critical care

- Hypotension
- Haemorrhage
- Haemorrhagic and thrombotic disorders
- Blood transfusion and blood component therapy
- Septicaemia and the sepsis syndrome
- Antibiotic therapy and the management of opportunistic infection
- Gastro-intestinal fluid losses and fluid balance, including in children
- Nutritional failure and nutritional support
- Respiratory failure
- Renal failure and principles of dialysis
- Fluid overload and cardiac failure
- Myocardial ischaemia
- Cardiac arrhythmias
- Multiple organ failure
- Pain control
- Cardiac arrest, respiratory arrest and brain death
- Transplantation
- Legal & ethical aspect of transplantation

### Diagnosis of the acute abdomen

- Diagnostic laparoscopy
- Closure of perforated peptic ulcer, open and laparoscopic
- Endoscopy for upper GI bleeding
- Operations for GI bleeding including partial gastrectomy
- Emergency cholecystectomy
- Emergency hernia repair
- Laparotomy for small bowel obstruction
- Small bowel resection
- Ileostomy
- Laparotomy for large bowel obstruction
- Laparotomy for perforated colon
- Hartmann’s operation
- Colostomy
- Appendicectomy
- Drainage of ano-rectal sepsis
- Laparotomy for post operative complications
- Urethral catheterisation
- Suprapubic cystostomy
- Exploration of scrotum
- Reduction of paraphimosis
- Embolectomy
- Fasciotomy
- Organ retrieval for transplantation

### 7.2 Trauma Surgery

- Tracheostomy
- Emergency thoracotomy
- Splenectomy for trauma
- Laparotomy for abdominal injury

### 7.3 Surgical sepsis

- Drainage of superficial abscesses
- Laparotomy for sepsis
- Chest drainage for sepsis
- Thoracotomy for sepsis
- Burr holes and craniotomy for intracranial abscess

### 7.4 Critical care

- Tracheal Intubation
- Tracheostomy
- Surgical airway
- Cardio-pulmonary resuscitation
- Chest drain insertion
- Central venous line insertion
- Insertion of peritoneal dialysis catheter
- Primary vascular access for haemodialysis

A detailed knowledge of the methods and results of invasive monitoring will not be required.
### 7.5 Gastrointestinal surgery
- Neoplasms of the upper GI tract
- Gallstone disease
- Jaundice
- Gastro-oesophageal reflux and its complications
- Hiatus hernia
- Peptic ulceration and its complications
- Radiation enteritis
- Neoplasms of large bowel
- Inflammatory bowel disease (inc medical management)
- Diverticular disease
- Irritable bowel syndrome
- Haemorrhoids
- Anal fissure
- Rectal prolapse
- Fistula in ano
- Diverticular disease/fistula
- Colostomy complications
- Ileostomy complications

### 7.6 Surgery of the skin & integument
- Pathology, diagnosis and management of skin lesions, benign and malignant
- Basal and squamous cell carcinoma
- Malignant melanoma
- Other skin cancers

### 7.7 Endocrine surgery / neck surgery
- Diagnosis & management of neck lumps
- Physiology & pathology of:-
  - Thyroid
  - Parathyroid
  - Adrenal cortex
  - Adrenal medulla
  - Management of:
  - Thyrotoxicosis
  - Adrenal insufficiency
  - Hyper and hypo thyroidism
  - Carcinoid syndrome
- Anaesthetic and pharmacological problems
- Imaging techniques for endocrine organs

### 7.8 Breast surgery
- Carcinoma of the breast
- Benign breast disease
- Hormone therapy for benign and malignant breast disease
- Histo-/cytopathology
- Mammography
- Ultrasound
- Adjuvant chemotherapy:
  - Chemotherapy for advanced disease
- Radiotherapy
- Counselling
- Hospice care

### 7.9 Hernias
- External and internal abdominal herniae. Anatomy, presentation, complications
- Hernia in childhood

### 7.10 Urology
- Undescended testicle
- Development and natural history of the prepuce
- Pathology of the scrotum and its contents
- Male sterilization, including counselling and informed consent

### 7.11 Paediatric surgery
- Infantile pyloric stenosis
- Childrens tumours eg Wilms
- Congenital abnormalities of bladder and abdominal wall
- Anorectal anomalies
- Tracheoesophageal abnormalities

### 7.5 Gastrointestinal surgery
- Diagnostic upper GI endoscopy
- Laparoscopic cholecystectomy
- Conversion to open cholecystectomy
- Exploration of common bile duct
- Biliary bypass
- Gastroectomy
- Splenectomy
- Proctoscopy/rigid sigmoidoscopy
- Flexible sigmoidoscopy & colonoscopy, diagnostic and therapeutic
- Outpatient haemorrhoid treatment
- Haemorrhhoidectomy
- Procedures for fistula in ano
- Right hemicolecotomy
- Left hemicolecotomy
- Sub-total colectomy
- Resections for rectal cancer, restorative and excisional
- Ileorectal anastomosis
- Panproctocolectomy
- Closure of Hartmann’s procedure
- Rectal injuries

### 7.6 Surgery of the skin & integument
- Excision of skin lesions
- Excision of skin tumours
- Split and full thickness skin grafting
- Node biopsy
- Block dissection of axilla and groin
- Surgery for soft tissue tumours including sarcomas

### 7.7 Endocrine surgery / neck surgery
- Thyroid lobectomy
- Retrosternal goitre
- Thyroglossal cystectomy
- Submandibular salivary gland excision
- Parotidectomy
- Approach and exploration of adrenal glands

### 7.8 Breast surgery
- Treatment of breast abscess
- Fine needle aspiration cytology
- Trucut biopsy
- Excision of breast lump
- Mammectomy
- Wide excision of breast tumours
- Axillary dissection with other breast operations

### 7.9 Hernias
- Surgery for all abdominal herniae, using open and laparoscopic techniques
- Repair of childrens’ herniae

### 7.10 Urology
- Operations for hydrocoele, epididymal cyst and varicocele
- Adult circumcision
- Vasectomy

### 7.11 Paediatric surgery
- Ramstedt’s procedure
- Orchidopexy
- Circumcision in children
7.12 Vascular surgery
- Atherosclerosis
- Ischaemic limb
- Aneurysmal disease
- Venous thrombosis & embolism
- Hyper-hypo coagulable state
- Chronic venous insufficiency
- Arteriography
- Vascular CT scanning
- Magnetic Resonance Angiography
- Vascular ultrasound
- Varicose veins
- Mesenteric ischaemia
- Vascular suture/anastomosis
- Approach to/control of infra-renal aortic, iliac and femoral arteries
- Control of venous bleeding
- Balloon thrombo-embolectomy
- Amputations of the lower limb
- Fasciotomy
- Primary operation for varicose veins
- Abdominal aortic aneurysm veins
- Femoral-popliteal bypass
- Femoro-femoral bypass

7.13 Research and ethics
- Critical appraisal of the surgical literature
- Scientific method & statistics as applied to surgery
- Informed consent
- Ethical aspects of surgical practice
- Genetic aspects of surgical disease
- Diagnostic laparoscopy
- Closed and open techniques of port insertion
- Laparoscopic biopsy
- Laparoscopic appendicectomy
- Laparoscopic adhesiolysis
- Thoracoscopy
- Laparoscopic suturing and knotting
- Control of laparoscopic bleeding

7.14 Minimal Access surgery
- Physiology of pneumo-peritoneum
- Informed consent for laparoscopic procedures
- Pre and post operative management of laparoscopic cases
- Port complications
- Technology of video imaging, cameras, insufflator etc
- Laparoscopic instruments, clips, staplers and port types
- Management of equipment failure
- Recognition and management of laparoscopic complications
- Use and dangers of diathermy
- Anaesthetic problems in laparoscopic surgery
- Open and closed reduction of dislocations
- Manipulation and POP splintage of fractures
- Skin and skeletal traction
- Open fracture debridement and external fixation
- Nerve repair
- Flexor and extensor tendon repair
- Surgical approaches to the joints and arthrotomy
- Emergency management of spinal injury
- Emergency management of closed and open head injury
- Burr holes and craniotomy
- Insertion and management of chest drains
- Thoracotomy and post operative management
- Approaches to the female pelvis
- Episiotomy
- Caesarian section
- Surgery for ruptured ectopic pregnancy
- Use of local anaesthesia
- Digital block
- Axillary block
- Spinal anaesthesia
- Use of ketamine
- Simple general anaesthesia

7.15 Other surgical specialties
- Limb trauma
- Open and closed Fractures
- Dislocation of joints
- Nerve injuries
- Flexor and extensor tendon repairs
- Acute septic arthritis
- Spinal injury
- Head injury
- Open and closed Chest injuries
- Obstetric and gynaecological emergencies
- Anaesthesia