

Emergency Surgical Officer: The Ethiopian Integrated Innovative Masters PA Analogue Profession

Author Profile

Fitsum Taye Negash BSC, MSC

Email: yaneti71@yahoo.com



A graduate from the Integrated Emergency Surgery program at the University of Gondar, Fitsum Taye Negash serves the people of his country of Ethiopia in a multitude of ways. While maintaining a position as the current Vice President of the Professional Association of Emergency Surgical Officers of Ethiopia, he has managed to juggle volunteer work with the Ethiopia for Global Youth Network, become a founding member of the World Humanitarian Community, maintain the Communication board position with the International Association of Physician Assistant Educators and be involved in improving safe surgical practices with the Ministry of Health for Ethiopia.

His establishment of Cholera Treatment Centers during the Cholera Epidemic in 2010 to assist in control of the disease as well as his continued work with subsequent Pandemic Preparedness Plans thereafter have made him a role model in the medical community. Fitsum continues to participate in revision of Ethiopian obstetric management protocols and safe surgical practices for hospitals and Health centers across the region; and has been recently awarded an “outstanding clinical practitioner” in the year 2020 by the Global Association of Clinical Officers and Physician Associates (GACOPA) for his creation of an operation service at the primary health care level which was previously limited to hospitals. Fitsum is also a technical working member of MPDSR (Maternal and Perinatal Death Surveillance and Response) for both the Ethiopian Public Health institute and Ministry of health , assisting on preparing the Training Manuals for Prevention of Female Genital Mutilation in Ethiopia. Fitsum is an accredited Master Trainer of Trainers (TOT) on Female Genital Mutilation (FGM) for Health workers in Ethiopia and works as a Medical Advisory Board Member to Mansaray Foundation in Sierra Leone.

General Information:

Emergency Surgical Officers training arose in Ethiopia in 2010 to address the problems which exist after construction of Hospitals, Human Resource gap that existed for both surgical and maternal health care as specialists are limited to capital cities. It was designed as a task sharing profession by the Ministry of Health (MOH) and the Ministry of Education (MOE) in the country at a time when maternal and neonatal mortality rates were exceedingly high and paralleled by a shortage of specialist doctors.

Entry Criteria:

Emergency Surgical Officers (ESO) have two levels of advanced training routes they can pursue: the initial MSC in Integrated Emergency Surgery and a subsequent PhD option upon completion. To be accepted to the MSC program, a previous BSC degree in Public Health (Health Officer) or in Nursing is required. Applicants must provide verification of completion of at least two years of clinical experience, provide two academic recommendation letters, one work recommendation letter, a sponsorship letter from a working organization, and complete an entrance examination with a passing score.

Those interested in the PhD program are eligible for candidacy only after completion of the MSC and two years of clinical service. These applicants also require three academic letters as previous, a sponsor letter from a government institution under the MOH and Concept note defense for PHD Examiners from different countries. Final examination screening result and defense pass approval confirmed and enrollment made from Doctrine committee of the institutions for project consideration in the areas of Emergency Surgery.

Education:

The MSC ESO program spans over 3.5 years. Didactic review of Anatomy & Physiology, Pathology, General Surgery and OBGYN are required including a cadaver lab. Throughout the program surgical skills training is continuous. During the second and third years, students will engage in major and minor emergency consultations and fine tune the skills necessary to master some procedures independently. By the third year, students will first assist in operations and will be expected to be more independent. Clinical rotations are ongoing throughout training with rotation of clinical sites every six month of the program in either the department of Surgery or OBGYN. A breakdown of the curriculum can be noted in Table 1.

Upon completion of the 3.5 years, students are required to pass an external exam that is proctored by different surgeons and gynecologists as well as complete a surgical research thesis. During this exam, students are questioned on history taking, physical examinations, clinical decision skills, surgical skills and indications for surgery. If a student fails this exam, they must repeat an additional six months of clinical rotations and undergo re-examination. Alternatively, those students who complete the full 72 credit hours along with the thesis, both clinical and internship years, and maintain a minimum of a grade B or higher throughout training will earn themselves the degree.

This 42 month program, provided only by four universities in the entire country, gives rise to 20-30 graduates a year capable of supplementing physicians both in surgery and in clinical care. There are currently 720 graduates from programs practicing in centers and hospitals throughout the country with about 380 students rotating through the various facilities in any given year.

Table 1. Emergency Surgical Officer curriculum breakdown.

Year/Semester	Credits	Didactic Focus	Clinical Experience	Requirement to Continue
1st year, semester 1	15	Anatomy & Physiology Pathology Basic Ultrasound & Xray Biostatistics & Research	none	Minimum GPA 3.0 or higher in all classes <i>Can proceed if cumulative GPA 3.0 or higher but any one class is lower</i>
1 st year, semester 2	15	OBGYN Emergency Medicine General Surgery <i>Repeat any courses with individual score less than 3.0 from previous semester</i>	<u>Clinical Practice I:</u> Emergency Medicine(1CRH), OBGYN, and general surgery(7 CRH Each)	Minimum GPA 3.0 or higher <i>All grades need to be above 3.0 at this time</i>
2 nd year, semester 1	13	Anesthesia(1CRH)	<u>Clinical Practice II:</u> OBGYN, General Surgery (6CRH Each)	Grade of PASS on Clinical examination on live patients at end of term
2 nd year, semester 2	6	Begin research thesis	<u>Clinical Practice III:</u> (Pass/Fail), OBGYN, General Surgery (3CRH Each)	Grade of PASS on Clinical examination on live patients at end of term
3 rd year, semester 1 & semester 2	20	Complete Research Thesis	<u>Clinical Practice IV:</u> OBGYN, General Surgery(10 CRH Each)	Grade of PASS on Thesis and Thesis defense
Additional Six months:		None	Internship	External Examiner's Clinical Exam

Financing Education:

The MOH provides both entrance and final examination screening/approval. They will also consider financial sponsorship of applicants. Sponsorship is a monthly salary paid on job at BSC and Master's level which is estimated 100 and 200 dollars respectively.

There is no financial payment expected from students or families. The Ethiopian government provides for basic needs and dormitories. The government will consider financial sponsorships for applicants attending public institutions; however, this does not include private university students who are obtaining a Master's or PHD.

Accrediting/Regulatory Bodies:

Accreditation is provided by the MOH and the Ministry of Science and Higher Education (MOSHE) <https://moshe.gov.et/>

Ring Road
Addis Abba, Ethiopia
+251-11-155-31-33
moshe@ethernet.edu.et

The Ethiopian Food, Medicine and Health Care Administration and Control Authority (EFMHACA) is the current regulatory body of Emergency Surgical Officers <https://fmhaca.gov.et>

Africa Avenue
Kirkos sub city
02/03 kebele, 02
+251-11-552-41-22
contactefda@efda.gov.et

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Professional Licensure:

Upon acceptance and prior to beginning the MSC program, students are required to sign a written contract with the MOH agreeing to provide 1-2 years of clinical services in remote location and/or 4-5 years of clinical services within larger towns or major cities. Only after they have completed their obligation will the MOH endorse for the university to provide the Master's degree certificate to the graduate. They will further direct the Ethiopian Food, Medicine and Health Care Administration and Control Authority (EFMHACA) that a professional license can be given to the graduate.

There is no certification examination or re-certification examination that is required of these practitioners. Each professional is solely responsible for completing 90 credit hours of continuous professional development (CPD) courses every three years to maintain licensure. Any Professional misconduct will be evaluated by Ethical Board committee who has potential decision to cancel the License if found major misconduct. There is no searchable licensing system in the country.

Scope of Practice:

ESOs are given the ability to admit/discharge patients from hospitals, provide perioperative care, engage in emergency preparedness planning/deliberation for pandemics/epidemics, provide screening and referral of complicated cases, obtain a history and general physical exam, and are given the right to prescribe medications. Table 2 provides further surgical interventions that these specialists can perform within the scope of licensure.

Table 2. Surgical procedures for which Integrated Emergency Surgical graduates can perform independently upon completion of study.

Category of Procedure	Description
Minor Surgery	Lipoma excision, circumcision, chest tube insertion, vacuum aspiration for abortions, wound debridement, fracture POP casting, splinting, rectal tube deflation for LBO, abscess drainage, Insertion and removal of Implanon and IUCD, cryotherapy for cervical cancer screening, polypectomy for genital polyps, US examinations for ANC and laboring mothers, fracture reduction
Major Surgery	Emergencies: Cesarean section, hysterectomy, bilateral tubal ligation, salpingectomy, salpingectomy, salpingo-oophorectomy/laparotomy for ectopic pregnancy, electric suction/curettage for GTD, appendectomy, laparotomy for bowel perforation, Grahams patch for perforated peptic ulcer diseases, splenectomy, colostomy, general management of thoracolumbar traumas, skeletal pin traction of fractures

Job Opportunities:

Jobs are available in primary hospitals and health centers as well as some secondary and tertiary units. Due to shortage, preference is provided to those seeking to be in more remote locations by choice. There are currently around 1,640 estimated jobs available. An additional 420 new operation theatre blocks have recently been constructed at health centers which require a minimum of two emergency surgical officers at each facility. ESOs are also considered for educational, instructional positions for Nursing specialties such as Operation Theatre specialty Nurses, Surgical and ICU Nursing within the health science colleges.

Affiliate Groups:

The Professional Association of Emergency Surgical Officers of Ethiopia (PAESOE) is the centralized organization of Emergency Surgical Officers within Ethiopia. Established in 2014 and certified under the law of the country, this organization works closely with government officials in all areas of health with increased involvement in both Maternal and Child Health as well as safe surgical practice. In collaboration with the MOH, they are working to open additional pathways for those licensed who wish to advance to alternative tracks of medicine such as MD or MD specialist. PAESOE works with local and international sister societies. Locally these include: Ethiopian Surgical Society, Society of Obstetricians and Gynecologists while internationally sister societies include: International Academy of Physician Assistant Educators (IAPAE), GACOPA and Physician Assistants for Global Health (PAGH).

References

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