

MEMBERSHIP CURRICULUM IN FAMILY PRACTICE

1. GENERAL INFORMATION

1.1 Introduction

Family Medicine is the name of the growing global concept of postgraduate training in General Medical Practice. It is a special medical discipline and the practice of it is Family Practice. Physicians trained in this discipline become Family Physicians.

It is a discipline which has integrated the essentials of several medical specialties into a new whole for the purpose of caring for the medical needs of several people at a given time. Its approach to patient care is holistic, seeing the individual in his own totality and in the context of his family and community.

The Family Physician is a frontline Doctor, trained to be a first contact provider of health care to all patients, irrespective of age, sex, diseases, state of health or illness. He* sees the individual, conducts investigations, makes a diagnosis, offers treatment and maintains comprehensive and continuous management. He also renders preventive, supportive and rehabilitative care, which help a patient to maintain or return to as high a level of physical and mental health and well-being as he can attain. At the appropriate time he refers to other specialists/consultants.

*In this document, 'he' refers to both genders.

A Family Physician is, therefore, trained to be highly knowledgeable in general medicine, with the appropriate attitude, skills and competence to enable him render quality care to his patient and keep a good doctor-patient relationship. He sees most of the diseases of most of the people most of the time.

The relevant contribution of the Family Physician in national health systems has been recognized by WHO, WONCA, university medical schools, colleges of general practitioners and health centres worldwide and information regarding this has been disseminated to ministries of health. The success of the Ghana Health Service and the National Health Insurance Scheme will depend largely on the training of sufficient numbers of Family Physicians to man our district hospitals and polyclinics.

1.2 Programme Rationale

- 1.2.1 It has been long observed in Ghana that the tertiary institutions are overloaded with patients whose health needs could be taken care of in secondary and primary institutions and this overload inconveniently chokes the tertiary system and creates unnecessary pressure on specialists resulting in compromise on performance and quality care.
- 1.2.2 Research has shown that the trained Family Physician is capable of handling 85 – 95% of all patients presenting for the first time at any out-patient clinic or hospital.
- 1.2.3 In the WHO/WONCA, working paper on making medical practice and education more relevant to people's needs, "The contribution of the Family Physician" published by

WHO and WONCA in 1995, evidence has been led to support the cost effectiveness of Family Physicians and their central role in National Health Care Programmes worldwide.

1.2.4 The establishment of adequate and competent middle belt of Family Physicians as gateway doctors between primary health care and specialist care should help decongest the tertiary system and create a more conducive environment for expert work, teaching, research and cordial referral system.

1.2.5 It will be cost effective for the Government and the nation as a whole, to train the Family Physician locally than to train him overseas. Majority of our district hospitals do not have doctors with advanced vocational postgraduate training and competence and this situation deprives a cast area of our nation the right to quality health care. The training tends to equip the Family Physician and the trainee to be relevant and in high demand by society in future.

1.3 **Philosophy**

The Philosophy is to train adequate competent Family Physicians within the shortest possible time, using a well structured programme to provide care for the population.

1.4 **Goal**

The goal is to train sufficient numbers of Family Physicians to offer quality primary care at all levels of the healthcare system in both private and public sectors.

1.5 **Objectives**

1.5.1 The primary objective is to provide a specialist vocational training for the doctor who wants to pursue a career in family practice as a front line doctor whether in a public or private hospital/clinic. Such a doctor should be:

- Clinically, highly skilled and competent over a wide range of medical care as defined in the curriculum.
- Able to integrate clinical knowledge from all the various disciplines to be able to make an initial decision on every case presented to him unlimited by age and gender; hence he has to be an expert in early diagnosis.
- Able to take an approach to health care which focuses on each patient as an individual and yet part of a family and community with social and cultural characteristics and hence the need for cost effective technology and therapeutics.
- Able to use evidence based approach in analyzing and managing health problems and be trained to undertake research in his own medical practice.
- Knowledgeable in Management Information Systems (MIS) including use of computers in medicine, as well as Hospital Administration.

- Skilled in health education, counselling, prevention, promotion and rehabilitation.
- Able to appreciate his role as the Gateway doctor. He thus receives and writes appropriate referral on behalf of his patients, interacting with the different consultants and following his/her patient's progress..

2 SYLLABUS AND CURRICULUM

2.1 Syllabus

The Family Physician may be seen as a bridge between primary health care on one hand and the major clinical specialties (medicine, surgery, obstetrics/gynaecology, paediatrics etc.) on the other hand. The syllabus therefore includes elements of all the major clinical specialties, to which the family doctor should not just have exposure, but in which he should be adequately competent to function as a front-line specialist.

The three (3) year training with revision lectures and rotational postings in approved hospitals, using the logbook system is programmed to give the required experience and competence.

2.2 Curriculum

- The curriculum provides the basis for a structured three years postgraduate programme in Family Practice.
- Emphasis of the training programme is on the acquisition of knowledge, attitudes, skills and competencies essential for Family Practice. After three years of training, the trainee will become a competent Specialist Family Physician who will be able to practise independently.
- The first two years concentrate on acquisition of knowledge, skills and attitude, with emphasis on diagnosis, treatment and exposure to special training centres. The training consists of introductory and revision courses, seminars, tutorials, workshops, bedside teaching, CME and rotational clinical postings at accredited regional and district hospitals. The third year focuses on acquisition of competence in integrated practice at accredited district hospitals and Family Practice centres.
- The curriculum logbook is signed by the supervisor at all points. It
 - Defines what disease entities should be handled by the trainee.
 - Defines the minimum level of skills needed to practice as a specialist Family Practitioner.
 - Sets length of time for training/postings and defines the core contents of each.
 - Incorporates exposure to the relevant technological advances and scientific investigations.
 - Defines the difference in disease patterns for the country.

- Defines a log book, which can record the skills and knowledge gained during the rotations.
- Defines general and specific procedures to be carried out at each stage of the training.
- Establishes necessary minimal period of exposure to rural and urban practice.

2.3 Programme Structure

2.3.1 Duration: Three years (36 months = 156 weeks)

2.3.2 Entry Requirement:

- Medical Degree; MB ChB or equivalent
- Two years internship rotation post – MB ChB.
- Full registration with the Medical and Dental Council of Ghana
- Pass at the Part 1 examination and a selection interview.
- The College will organize an on-going course in Applied Basic Sciences for all residents in the course of the year. Candidates will be guided by the Faculty to attend selected lectures to satisfy the programme requirements.

2.3.3 Schedule for Clinical Rotations

The 36 months clinical rotational programme/lectures is presented below.

YEAR 1

	Rotation	Duration
1	Family Practice (including Introductory Course)	10 weeks
2	Adult Medicine (including dermatology)	8 weeks
3	Women's Health -1	6 weeks
4	Mental Health	8 weeks
5	Laboratory Medicine I	4 weeks
6	Community Health	4 weeks
7	General Surgery- 1	6 weeks
8	Leave	6 weeks
	TOTAL	52 weeks
	End of year assessment	

YEAR 2

	Rotation	Duration
1	Family Practice	8 weeks
2.	Child Health	8 weeks
3	Women's Health – 2	6 weeks
4	Anaesthesia	4 weeks
5	Accident & Emergencies	6 weeks
6	General Surgery – 2	6 weeks
7	Ear, Nose & Throat (ENT)	4 Weeks
8	Ophthalmology	4 Weeks
9	LEAVE	6 weeks
	TOTAL	52 weeks
	End of year assessment	

YEAR 3

	Rotation	Duration
1	Men's Health	4 weeks
2	Imaging	4 weeks
3	Oral Health	2 weeks
4	Dietetics	2 weeks
5	Laboratory Medicine – 2	4 weeks
6	Health Administration & Management	4 weeks
7	District Rotation for Family Practice	12 weeks
8	Oncology & Palliative Care	4 weeks
9	Private Practice Tutelage*	12 weeks*
10	Elective**	6 weeks
11	Revision	4 weeks
12	Leave	6 weeks
	TOTAL	52 weeks
	Part II exam with presentation of project	

*Rotation done concurrently with Imaging, Lab Med 2 and Health Admin & Management

**Electives shall be in Special Interest Areas (SIA) e.g. Faculty Development, Geriatrics, Palliative Care, Adolescent Medicine, Preventive Medicine, Sports/Exercise Medicine, Travel Medicine and International Health, Integrative Medicine, Primary Care Research.

2.2.4 Practical Training

The emphasis is on obtaining a thorough understanding of the role of the Family Physician in primary, secondary and tertiary care and in achieving practical competence in the diagnosis and management of a wide range of conditions presenting to the medical practitioner as a frontline physician. Competence should also be achieved in appropriate referral for tertiary care.

2.2.5 Log Books

The log book system will be used for clinical rotational postings. Residents will keep a log book for cases seen and all practicals performed.

2.2.6 Programmes for Rotations

The supervisors of the various departments shall ensure that all residents take part in the following programmes.

- Out-patient care
 - Clerking of cases, investigations and treatment
 - Presentation of cases to consultants
 - Responding to referral letters
- Emergency care
 - Residents on call must be available for the specified duration
 - Residents may be first on call depending on the requirements of the rotation
 - Clerking of cases
 - Instituting appropriate emergency care followed by investigations and definitive treatment
- In-patient Care
 - The resident should take care of:
 - The patient
 - Clinical documentation on admission
 - Communication with relatives and other clients
- Procedures - residents must take part in all procedures indicated in the log book
- Ward rounds and bedside teaching
- Continuity of care – this is essential to the training. During the period of training, residents must be supervised to follow up their patients in continuity clinics as well as home visits in order to provide holistic care.
- Weekly departmental meetings for:
 - Tutorials
 - Case presentations
 - Morbidity and mortality conferences

- Journals club
- Seminars and lectures
- Surgical Departments – Residents should be responsible for:
 - pre-operative clerking of cases
 - pre-operative laboratory investigation
 - pre-operative medication
 - assisting in most operations
 - operating on cases enumerated under surgical, obstetric and gynaecological skills
 - post-operative care
 - counselling of client and immediate relatives

2.2.7 Update and revision courses shall be organized yearly. Residents are required to attend these courses. Residents may also benefit from update courses organized by other specialties as recommended by the faculty.

2.2.8 Project work – Family Case Study

- One family, well selected and followed up for at least one year shall be written up and presented for grading 6 months before the Part II examination.

3 **CERTIFICATION**

3.1 **Board of Examiners**

A board of examiners consisting of the education committee of the faculty which includes the chief examiner, the chairman and the postgraduate training coordinators will be responsible for conducting the examinations for the residents.

3.2 **Assessment**

3.2.1 Report on the performance of each candidate will be forwarded to the College of Physicians yearly by the Chairman of the Faculty.

3.2.2 There will be an in-course assessment at the end of every year in addition to a specified number of formative assessments for each resident as will be decided by the education committee.

3.2.3 There will be an entrance examination i.e. Part I for new applicants and a Part II examination at the end of Year 3.

- Format of Part I Examination:
 - 100 Multiple Choice Questions (MCQs) with single best answer.
Duration – 1hour 30 minutes. Pass mark is 50%.

PART OF EXAMINATION	ASSESSMENT METHOD	WEIGHTING	CONDITION PASSING
PART I	Multiple choice questions (MCQs) -(100 questions one best answer format)		50%
PART II: THEORY	Theory Paper I: multiple choice questions (MCQs) (150 questions one best answer format)		50%
	Theory Paper II: Modified Essay Questions (MEQs) (50 questions)		50%
CLINICAL	One long case : 1 hour (30 minutes each for clerking and examination); Short cases (3 cases): for 15 minutes		50%
ORAL EXAMINATION	Log book, practical and general oral – 1 hour.		50%
PART III	Oral A: General orals		50%
	Oral B: Defence of Case book OR Defence of Dissertation		50%

- **Format of Part II Examinations**

- Theory Paper 1: 150 MCQs with single best answer – 2 hours 30 minutes. Pass mark 50%;
Theory Paper 2: 50 Modified Essay Questions (Problem Solving Questions) – 2 hours. Pass mark 50%;
- *Clinicals: One long case – 1 hour (30 minutes each for clerking and examination); and 3 short cases for 15 minutes. Pass mark 50%;
- Oral examination: comprising the log book, practical and general oral – 1 hour. Pass mark 50%.

*The faculty is working at replacing the clinical examination format with the Objective Structured Clinical Examination i.e. OSCE.

3.3 Eligibility for the final examination - The resident should have;

- Been with the faculty for the full number of months required for training.

- Completed about 80% of the log book duly signed by the supervisor.
- Signed the form '*completion of training*' on presenting his log book.
- Presented his project work.
- Satisfied in-course assessment requirements.

3.4 **Membership**

On successful completion of the three-year programme the candidate will become a Member of the Ghana College of Physicians in the faculty of Family Medicine, with the letters **MGCP (FamMed)** and will be registered by the Medical the Dental Council of Ghana as a Specialist Family Physician.

3.5 **Resits**

Candidates who are unsuccessful at the first attempt will be given three more chances to pass the membership examination.

3.7 **Accreditation of Programme**

3.7.1 Accredited Training Centres

The programme uses health facilities that have been accredited by the faculty as training centres as well as those that are approved as satellite training posts. Currently the centres accredited for training are:

- Korle Bu Polyclinic, Accra
- Ridge Regional Hospital, Accra
- Komfo Anokye Polyclinic, Kumasi
- KNUST Hospital, Kumasi

The satellite training posts include:

- St. Dominic's Catholic Hospital, Akwatia
- Battor Catholic Hospital, Battor
- Koforidua Regional Hospital
- Tema General Hospital

Sites envisaged for private practice tutelage include;

- Narh Bitra Hospital, Tema
- Mission Hospital, Accra
- Phillips Clinic, Accra
- Joana Clinic, Accra
- Barnor Hospital, Accra

Other sites earmarked for training within the next 5 years are;

- Dodowa District Hospital
- La General Hospital
- Tema General Hospital
- Tamale Teaching Hospital

3.7.2 Selection of Trainers

Trainers are drawn from fellows who are:

- Family Physicians in academic institutions, tertiary and secondary health institutions.
- Family Physicians in private practice
- Specialists in other disciplines

3.7.3 Training Methodology

- A full-time residency programme. A variety of methods suitable for adult learning are employed including;
 - Student-directed, problem-based as well as work-based learning.
 - Small group discussions, didactic lectures
 - Project work

4 **COURSE CONTENT**

4.1 **Principles of Family Medicine - I**

- What is Family Medicine?
 - Background, scope and domain
- Concept of Family Dynamics in Health and Disease
- The Family Physician's role in health care delivery
- The Family
 - Definitions, peculiar attributes of families & basic family tasks
- General systems theory
- Family systems theory
 - Traditional nuclear family life cycle
 - Dislocation and re-establishment
- Creating the Family Genogram

- Family circle sessions & therapy
 - Providing family-centered care
 - Health and community context
- Skills of the Family Physician
- Essential attributes of the Family Physician

4.2 Principles of Family Medicine II - Sociological and Psychological Aspects of Health and Illness

4.2.1 Health and illness

- Attitude to diseases in the community
- Behaviour presenting to the Family Physician
- Factors affecting the moral of the community

4.2.2 Care of the chronically ill

4.2.3 Spirituality in patient care

4.2.4 Communication skills

4.2.5 Doctor-Patient relationship

4.2.6 Management of grief and care of the dying

4.2.7 Sources of healing outside the health services (Alternate Medicine)

4.2.8 Urbanization and economic factors – their implication on health

4.2.9 Ethics and medico-legal matters

4.3 Adult Medicine

4.3.1 Overview of Clinical Methods

4.3.2 Respiratory System

- Acute viral and bacterial infections.
- Bronchitis, bronchiolitis, laryngitis, Sinusitis.
- Bronchiectasis, emphysema.
- Pneumonias, emphysema.
- Bronchial asthma and other allergic lung diseases.
- Tuberculosis – primary T.B., re-infection and extra pulmonary.
- Industrial lung diseases.

4.3.3 Cardiovascular System

- Congenital Heart Diseases e.g. VSD, ASD.
- Ischaemic Heart Diseases – MI (Screening for risk factors).
- Heart failure – Acute and Chronic left ventricular failure – pulmonary oedema.
- Hypertension – essential and secondary.
- Cardiac Tamponade.
- Thrombo-Embolism – DVT, P.E.

- Investigation – E.C.G. Cardiac Enzymes; exposure to angiography and echocardiography.

4.3.4 Nervous System

- Viral and bacterial infections e.g. meningitis, encephalitis.
- Strokes – hemorrhagic, occlusive, TIA.
- Peripheral Neuritis/Neuropathy
- Lower and upper Motor Neuron Lesions.
- Epilepsy, Parkinsonism, Myasthenia gravis
- Cranial and spinal dysfunction
- Coma

4.3.5 Gastrointestinal Disorder

- Peptic Ulcer diseases.
- GERD

4.3.6 Common Infections and Infestations

- Malaria, Enteric Fever
- Haemorrhage Fevers.
- Schistosomiasis, onchocerciasis, amoebiasis, helminthiasis.
- HIV/AIDS – Diagnosis, Counselling and management.
- Tetanus, rabies and poliomyelitis, Measles, chicken pox, herpes zoster simplex.

4.3.7 Blood Disorder

- Anaemias
- Haemoglobinopathies; sickle cell diseases, thalassaemia
- Leukemia, Lymphoma
- Bleeding Disorders

4.3.8 Diseases of the Liver, Spleen and Gall Bladder

- Hepatitis
- Liver failure
- Cholelithiasis/Cholecystitis
- Hepatosplenomegaly

4.3.9 Diseases of the Pancreas

- Pancreatitis
- Carcinoma of pancreas etc.

4.3.10 Genito/Urinary System

- Infections
- Glomerulonephritis / Nephrotic syndrome
- Renal Calculi
- Renal failure, uremia

- Haematuria
- Water and electrolyte disorders
- Dialysis

4.3.11 Endocrine disease

- Diagnosis and management of diabetes mellitus
 - Diabetic Ketoacidosis
 - Hypoglycemia
- Obesity
- Lipid Disorders
- Diseases of the thyroid

4.3.12 Diseases of the Skin

- Allergic skin reactions
- Infections
 - Fungal, Bacterial, Viral, Parasitic
 - Pemphigus, impetigo
 - Boils/Carbuncles\
 - Scabies
 - Dermatomycosis
- Psoriasis, Eczemas
- Leprosy – early recognition
- Skin manifestations of systemic diseases

4.3.13 Rheumatology

- Rheumatoid arthritis
- Osteoarthritis
- Septic arthritis
- Gout/Pseudogout
- Acute low back pain
- Chronic low back pain
- Tendosynovitis
- Carpal Tunnel syndrome
- Nerve palsies
- Spondylosis

4.4 Geriatric Medicine

4.4.1 Introduction to Geriatric Medicine

- 4.4.2 Common disorders of old age
- 4.4.3 The nervous system
- Stroke
 - Haemorrhage - causes e.g. hypertension, clinical features and management.
 - Infarction - causes e.g. atherosclerosis, aetiology, clinical presentation, investigation and management.
- 4.4.4 Alzheimer Disease
- 4.4.5 Parkinsonism - mobility disorder, causes, investigation, clinical presentation and management
- 4.4.6 Peripheral Neuritis - aetiology, investigation, clinical presentation and management
- 4.4.7 Insomnia and Sleep disorder - causes and management
- 4.4.8 Prostate enlargement - benign, malignant, aetiology, clinical presentation e.g. retention of urine, incontinence, investigation, management, catheterization, cystotomy
- 4.4.9 Gastrointestinal System
- Constipation - causes and management
 - Haemorrhoids - clinical presentation and management
- 4.4.10 Malignancies
- Cancer of Prostate - early detection and management
- 4.4.11 Eye disorders - investigation and management
- Blurred vision
 - Cataract
 - Glaucoma
- 4.4.12 Ear disorders
- Deafness - partial or complete, investigation and management
- 4.4.13 Skin disorders - aetiology, clinical features and management
- Bedsores
 - Dermatitis
- 4.4.14 General
- Falls
 - Loneliness, boredom, suicide
- 4.4.15 Visit one help age centre, NGO

4.5 **Urology**

4.5.1 Applied anatomy of the genito-urinary system

- 4.5.2 Acute urinary obstruction (retention) - causes, clinical features, diagnosis and treatment, cystotomy
- 4.5.3 Urethral Stricture - aetiology clinical features and management
- 4.5.4 Prostatic enlargement
benign
malignant - aetiology, clinical presentation
- diagnosis and treatment
- carcinoma of the prostate, early diagnosis and management, prostatic acid phosphatase, PSA
- 4.5.5 Infertility varicocele - presentation investigation, analysis and management
- 4.5.6 Sexual dysfunction
- 4.5.7 Skills Required in Urology
- Dilation of the urethra in urethral stricture
 - Cystotomy for acute urinary retention
 - Passage of urethral catheter
- 4.6 **General Surgery**
- 4.6.1 Abdominal Emergencies
- 4.6.2 Acute Appendicitis - diagnosis and management; appendectomy
- 4.6.3 Intestinal Obstruction - aetiology, diagnosis and management, refer appropriate cases
- 4.6.4 Acute Cholecystitis - aetiology, clinical features, investigation, treatment
- 4.6.5 Perforated PU - clinical features, investigation, management, refer
- 4.6.6 Acute Pancreatitis - aetiology, clinical features, investigation, diagnosis and treatment
- 4.6.7 Strangulated Hernia - diagnosis, management or refer
- 4.6.8 Torsion of Spermatic cord - clinical presentation management
- 4.6.9 External Hernia - diagnosis, complications, management, repair
- Umbilical hernia
 - Inguino-scrotal hernia
 - Femoral hernia
- 4.6.10 Scrotal Swellings
- Hydrocoele - diagnosis, management – hydrocoelelectomy
 - Orchitis - clinical presentation management
 - Cancer of Testis - clinical presentation, management, refer

- 4.6.11 Swellings of the Breast
- benign
 - Malignant
 - Cancer of the breast - clinical presentation staging, investigation, biopsy management, refer
 - Paget's disease
- 4.6.12 Swellings of the Neck
- Goitre - clinical presentation investigation, management
 - Cancer of the Thyroid - presentation, investigation, refer
- 4.6.13 Obstructive Jaundice
- Biliary Stones - aetiology, clinical presentation, cholecystogram and management
 - Cancer of the Pancreas - aetiology presentation, investigation, management
- 4.6.14 Upper Gastro-Intestinal Bleeding
- Peptic Ulcer - aetiology, clinical presentation, investigations(Barium meal) and management, drugs, surgery, indications for surgery, endoscopy
 - Oesophageal Varices - clinical features, investigation and management
- 4.6.15 Lower Gastro-intestinal bleeding
- Haemorrhoids - clinical features, management, indications for surgery
 - Ulcerative Colitis - clinical presentation and management
 - Cancer of the Rectum - clinical features, investigations – Barium enema rectoscopy and management
- 4.6.16 Trophic and Chronic Ulcers - identification and management
- 4.6.17 Cutaneous and Subcutaneous Conditions
- Lipoma - identification and management – excision
 - Sebaceous Cyst
 - Avulsion Toe nail
 - Plantar Warts
 - Ganglion
 - Ainhum
 - Abscess - clinical presentation and management, incision and drainage

4.6.18 Fluid and Electrolyte Balance

4.6.19 Shock - diagnosis, investigations and management

4.6.20 Skills Required in Surgery

- Good history taking, physical examination
- Basic and advanced life support }
 - intubation, tracheostomy } Anaesthesia in Emergency Medicine
 - use of AMBU bag }
 - cutdown insertion of central lines }
- Blood grouping and crossmatching using standard kit to screen for hepatitis BC and HIV
- Shock - diagnosis, resuscitation and management,
- repair of reducible inguinal, femoral and umbilical hernia; Strangulated or obstructed hernia diagnosis and management
- Appendectomy
- Hydrocoelelectomy
- Cystotomy for acute urinary retention
- Dilation for urethral stricture
- Circumcision
- Excision of lipoma, ganglion, sebaceous cyst, ainhum
- Curettage and removal of planter warts
- Removal of FB in body tissues e.g. broken needles and bullet
- Removal of foreign bodies in nose – using bent probe
- Incision and drainage of superficial and deep abscesses
- Incision and drainage of deep iliac abscess
- Suturing and strapping repair of laceration
- Simple skin grafting for Tropical ulcers
- Management of abrasions, burns
 - using GV and mercurochrome in exposure management or
 - tulle dressings in closed management
- Reduction of dislocation of jaw, shoulder and hip joints
- Application of POP and Thomas splint for common fractures
- Diagnosis and initial management of head injury
- Management of the unconscious patient

- Medical operations
 - Cut down for IV infusion
 - Aspiration of pleural or pericardial
 - Abdominal tap for blood pus
 - Liver biopsy with menghini needle
 - Lymph node biopsy
 - Lumber puncture

4.7 Neurosurgery

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| 4.7.1 | Hydrocephalus | aetiology, clinical presentation, diagnosis, treatment – prognosis |
| 4.7.2 | Tumours of the brain | clinical presentation, investigations myelogram, CT scan, treatment – prognosis |
| 4.7.3 | Backbone Syndrome | aetiology, clinical features, diagnosis and treatment |
| 4.7.4 | Thrombosis and Embolism | aetiology, presentation, diagnosis and treatment |
| 4.7.5 | Compression of Cord | aetiology, clinical features, diagnosis (myelogram, CT scan) and treatment |
| 4.7.6 | Procedures | x-ray, myelogram, CT scan |

4.8 Anaesthesia

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| 4.8.1 | Introduction to anaesthesia | pathophysiology of pain |
| 4.8.2 | Anaesthetic Agents | Produce unconsciousness, analgesia and muscle relaxation

Indication and contraindication
Advantages and disadvantages
Interaction between drugs and anaesthetic agents |
| 4.8.3 | Types of Anaesthesia | |
| | • General Anaesthesia: methods | |
| | Inhalation | Open mask air/whether with or without thiopentone/suxamethonium and endotracheal intubation, laryngeal mask |
| | Intravenous | thiopentone, valium, ketamine
indications, contra indication |
| | Anaesthesia for out patients' | indications e.g. D&C, circumcision
types and duration of procedure
post operative instructions to patient |
| | • Local Anaesthesia | mode of action
agents
complications
indications and contraindication
techniques |

- topical surface anaesthesia
- infiltration anaesthesia
- field block
- nerve block

- Regional Anaesthesia

indications

advantages and disadvantages

types

- brachial plexus block
- wrist block
- Intercostals nerve block
- field block for caesarean section
- analgesia of plantar area of foot
- analgesia of dorsum of foot

- Spinal Anaesthesia

indications and contraindications

post-operative complications

advantages and disadvantages

- Basic and Advanced life support

4.8.4 Skills Required in Anaesthesia

- Good history taking and physical examination
- Competence in local Anaesthetic methods e.g. infiltration, topical spray.
- Competence in giving short duration general Anaesthesia for out-patients
- Experience in administration of general anaesthesia
- Competence in passing endotracheal tube

4.9 Traumatology/Emergency Medicine

4.9.1 Traumatology

- Fracture of the following:
 - Clavicle
 - Shaft of the humerus
 - Radius and ulna
 - Colles
 - Tibia and Fibula
 - Femur
 - Pelvis
 - Spine
 - Skull
- Wound Care

4.9.2 Emergency Medicine

- Introduction to emergency medicine
- Acute myocardial infarction aetiology, clinical presentation, investigation and management, cardiopulmonary resuscitation
- Acute pulmonary oedema aetiology, clinical features, investigation and management
- Acute Respiratory Failure causes, clinical features, investigation and management
- Severe Bronchial Asthma aetiology, clinical presentation investigation and management, oxygen therapy, bronchodilator, anti-inflammatory agents (steroid)
- Diabetic Ketoacidosis aetiology, clinical features, investigation and management
- Acute Renal Failure aetiology, clinical presentation and management
- Acute Poisoning aetiology, clinical presentation investigation and management
- Eclampsia aetiology, clinical presentation investigations and management
- Severe head injury causes, clinical presentation, investigations and management, x-ray, CT Scan, imaging
- Severe chest injuries clinical presentation and management
- Severe abdominal and pelvic injury aetiology, clinical presentation, management
- Spinal injury aetiology, clinical presentation, investigations, and management
- Severe multiple trauma aetiology, clinical presentation, investigation, and management
- Mass casualty triage
- The unconscious patient causes, clinical presentation, investigations and management
- Status epilepticus clinical presentation and management
- Acute Gastro-intestinal bleeding diagnosis and management
- Acute pancreatitis diagnosis and management

- Hepatic failure diagnosis and management
- Anaphylaxis diagnosis and management

4.9.3 Skills Required in Emergency Medicine

- Good history taking
- Thorough physical examination
- Cardio-pulmonary Resuscitation
- How to monitor computers in ICU
- How to perform respiratory function tests
- How to monitor oxygenation
- Exposure to imaging techniques in ICU
- Blood transfusion and blood products
- Exposure to the dialysis machine
- How to interpret the report of ECG, biochemistry, haematology
- Pain relieve in ICU

4.10 **Community Health**

- Introduction to Community Health
- Child Health
- Under five clinics: the growth chart as a clinical educational tool
- Home based record providing continuity of care
- The role of the nurse and assistants in screening

4.10.1 Nutrition

- Breast feeding, supplementation, weaning, adult dietary requirement
- The place of fiber, sugar and refined foods in relation to dental health
- Malnutrition, kwashiorkor

4.10.2 Immunizations (and booster)

- Under five, school age booster
- International requirements
- List of vaccination - BCG, DPT, polio, measles, yellow fever, TB pentavalent vaccine, influenza, Hepatitis B

4.10.3 Community Obstetrics

- The role of the midwife at primary level
- At risk categories of antenatal patients
- Points of referral for secondary care
- Co-operation with traditional birth attendants

4.10.4 Family Planning

- Population growth, Demography
- Methods of contraception
 - natural/artificial
 - reversible - barriers, hormonal – oral, injectable, norplant
 - irreversible - surgical, tubal ligation, vasectomy

4.10.5 Biostatistics & Research Methodology

4.10.6 Visit to institutions associated with prevention and social medicine

- Leprosarium
- School for the blind
- School for the deaf and dumb
- Fevers Unit
- Plastic Surgery Department
- Traditional Medical Centre

4.10.7 Epidemiology of chronic diseases and infectious diseases

4.10.8 Environmental health and sanitation

4.10.9 Skills required in Community Health

- Competence in organizing health educational programmes in e.g. reproductive health,
- Prevention of diseases
- Organize home visits for the vulnerable in the community e.g. the under five, the aged, the chronically ill people
- Experience in data collection and analysis
- Competence in antenatal care including detection of risk pregnancies
- Give community-based health education lectures on
 - Family life and marriage
 - Human sexuality
 - Nutrition and disease
 - Moral values of the community etc.
- Creation of awareness of the benefits of immunisation in the community
- Be able to investigate and control an epidemic in a community
- Experience in information technology
- Competence in prevention
- Competence in administration, management and leadership

4.11 **Industrial Medicine**

4.11.1 Causes of industrial/occupational hazards

- Physical
- Economic

- Psychological
- Biological

4.11.2 Prevention of industrial hazards is a joint effort by:

- The employer
- The employee
- The government

4.11.3 Compensation

- Laws must favour both employer and employee
- The current labour decree regulation
- Workman's compensation
- Insurance

4.11.4 Skills Required in Industrial Medicine

- Good history taking
- Good physical examination

4.12 Child Health

4.12.1 The Neonate

- The Newborn examination of the newborn, recognition of abnormalities, diseases of the newborn, premature babies, twin, small for age.
- Neonatal Asphyxia risk factors, resuscitation of the newborn, clinical presentation, indications for referral.
- Birth injuries risk factors, clinical presentation, management of intracranial haemorrhage, nerve palsies, fractures, cephalhaematoma, caput succedaneum, stenomastoid tumour, abdominal organ injuries indication for referral.
- Congenital Abnormalities congenital heart disease, VSD, ASD, TOF presentation, Genetic abnormalities
Down syndrome
intestinal atresia,
diaphragmatic hernia

- Low birth Weight
 - bone and joint deformity
 - diagnosis and indication for referral
- Neonatal Sepsis
 - risk factors,
 - management
 - indications for referral
- Neonatal Jaundice
 - risk factors, aetiology
 - clinical features,
 - management,
 - complications
- Neonatal Tetanus
 - risk factors, aetiology
 - clinical presentation,
 - management,
 - indications for exchange transfusion,
 - indications for referral
- Neonatal Haemorrhage
 - risk factors,
 - clinical features,
 - management
 - referral
- Heart Failure
 - risk factors,
 - clinical presentation,
 - management

4.12.2 Infections

- Malaria
 - aetiology, presentation and management,
 - uncomplicated malaria, severe malaria –cerebral malaria, severe anaemia, black water fever; indications for referral.
- Acute Respiratory Infection
 - aetiology of ARI, Bronchitis, recognition and management, laryngotracheobronchitis, differential diagnosis of pneumonia, unresolved pneumonia, pneumothorax, pleural effusion

- Tonsillitis, Otitis Media aetiology, sinusitis, clinical features, management, recognition and management of complications.
- Measles clinical features and management, recognition and management of complications, laryngotracheobronchitis, pneumonia, keratoconjunctivitis, severe malnutrition, subcutaneous emphysema, use of Vitamin A, immunization schedule.
- Mumps, Pertussis – Chicken pox immunization schedule, clinical features and management, recognition and management of complications.
- Meningitis Encephalitis aetiology, clinical features, management, diagnosis and management of complications subdural effusion.
- Gastroenteritis aetiology of diarrhoea, clinical features and management, oral rehydration therapy and drug therapy, diagnosis and management of severe dehydration, physiology of fluid and electrolytes.

4.12.3 Blood Disorders

- Anaemia aetiology, clinical features and management of anaemia, complication of severe anaemia, heart failure and their management
- Sickle Cell Crisis aetiology of sickle cell disease precipitating factors of crisis types of crises, sequestration crisis, haemolytic crisis, thrombo-embolic crisis (CVA), recognition and management of crisis, indications for referral, counselling

4.12.4 Common conditions of the Skin recognition and management of boil, impetigo, periphigus abscesses, carbuncle.

4.12.5 Malnutrition risk factors, types of malnutrition, clinical features, complications (including cancrum oris) recognition of hypoglycaemia hypokalemia and septicaemia.

4.12.6 Home Accidents burns, causes, types, prevention and management of complications eg. shock, sepsis, contractures smoke inhalation fluid therapy in burns

- 4.12.7 Poisoning epidemiology of poisoning, recognition of clinical features of common types of poison i.e. soda, acid, kerosene, aspirin, paracetamol, adulterated drugs, native concoctions, management, indications and contra indication for gastric washout, indications for referral.
- 4.12.8 Anaphylactic Shock causes, and recognition, management
- 4.12.9 Bronchial Asthma pathophysiology, predisposing factors, diagnosis and management of severe asthma indications for referral.
- 4.12.10 Pyrexia of Unknown Origin management approach
- 4.12.11 Paediatric Emergencies causes, symptoms, features, management of:
 - acute respiratory distress
 - acute poisoning
 - syncopal attack
- 4.12.12 Diseases of the eye Diagnosis and management, ophthalmia neonatorum, the red eye, blindness
- 4.12.13 Convulsions
- 4.12.14 Other disorders Failure to thrive, behavioral problems, obesity, early detection of deafness/ blindness, speech problems
4. 12. 15 Clinical Skills Required in Child health
- Venepuncture
 - Insertion of IV. Line
 - Cut – down
 - Nasogastric Tube Insertion
 - Apgar Score
 - Lumbar Puncture
 - Subdural Tap
 - Insertion of chest tube
 - Paracentesis thoracis and abdominis
 - Use of photo therapy light
 - Exchange blood transfusion
 - Intubation
 - Gastric washout
 - Oxygen therapy

4.13 Women's Health

The extent to which emergency obstetric and gynaecological cases can be managed by the family physician will depend on:

- The growing experience of the practitioner
- The facilities for caesarean section
- A good nursing/midwifery team providing continual care

4.13.1 Obstetrics

- Applied Anatomy and physiology of the female reproductive system
- Menstruation and menstrual problems
- Antenatal Care
 - Normal pregnancy
 - History taking, examination, investigation and management of normal pregnancy – malaria and tetanus prophylaxis
 - Detection and management of all risk factors e.g.
 - Hypertension
 - Diabetes
 - SCD
 - Cardiac diseases
 - Renal diseases
 - Epilepsy
 - Complications of pregnancy. Detection and management of:
 - haemorrhages,
 - anaemia
 - ectopic
 - P.E.T.
 - Eclampsia
 - Premature rupture of membrane
 - Anaemia in pregnancy causes, history, clinical features, laboratory investigations, treatment
 - Sickle cell disease in Pregnancy prevention of crises, folic and anti malaria, prophylaxis, more frequent antenatal visits
 - Haemorrhages
 - Abortion: threatened, inevitable, incomplete, septic, post abortion care
 - Ectopic pregnancy early detection and management, referral
 - Antepatum haemorrhage (APH) causes, mild or severe, management
 - Placenta Praevia
 - Abruptio placentae
 - Post partum haemorrhage causes and management
 - Hypertensive disorders in pregnancy aetiology recognition, clinical features,

- investigation and management
- Diagnosis of labour
 - Normal labour
 - Stages of labour, latent phase, active phase, the powers, passages, passenger, use of partograph, episiotomy and repair of episiotomy
 - Assisted labour
 - vacuum extraction
 - forceps delivery
 - caesarean section
 - augmentation
 - Complications of labour
 - Detection and management of:
 - Prolonged labour
 - Obstructed labour
 - PPH
 - Ruptured uterus
 - Retained placenta
 - Eclampsia
- Lactation and lactational management

4.13.2 Gynaecology

- Abortion and ectopic – as above
- Infections - Reproductive tract infection
 - Pelvic inflammatory disease/STD, HIV/AIDS/Vaginitis
 - Causes
 - Symptoms – eps. Pelvic and generalized peritonitis
 - Clinical examination, speculum, bimanual vaginal examination
 - Investigation – Vaginal, cervical, urethral swabs for microscopic examination and – culture
 - Treatment
 - Complication of PID
 - Puerperal Sepsis
 - Presentation - fever
 - Causes – pelvic infection, mastitis, breast abscess, URT diseases, chest infections UTI, DVT
- Vaginal Discharge
 - causes and management
- Vulvo-vaginal swellings
 - Bartholin's cyst, anatomy of vulva, symptoms, signs and treatment
- Care during Menstruation
- Post-operative management

- Infertility investigation (male and female) and management
- Tumors of the reproductive organs. Early detection and management
 - Benign-Fibroids presentation, investigations, treatment, myomectomy
 - Ovarian Cyst: clinical features, investigation, complications e.g. haemorrhage, torsion, infection, rupture and management.
 - Malignant-choriocarcinoma: abnormal pregnancy detection and management
 - Cancer of the cervix Pap smear, cervical biopsy
 - Cancer of the uterus
- Gynaecological emergency ectopic abortion
- Menopause presentation and management
counselling for symptoms use of HRT
counselling for marital sexual problems
- Adolescent Reproductive health
- Family Planning
 - Reversible hormonal, injectable, oral, norplant, IUD
 - Irreversible tubal ligation, male sterilisation,
 - STD, HIV/AIDS
 - Counselling

4.13.3 Skills required in women's health

- Good history taking
- Clinical Examination
- Vaginal examination
- Speculum examination
- Taking vaginal, cervical (pap smear), urethral swabs
- Abdominal paracentesis
- Resuscitation
- Blood transfusion (Autotransfusion)
- Examination under anaesthesia
- Induction of Labour
- Use of partograph in management of Labour
- Management of third stage of labour
- Manual removal of placenta
- Examination of placenta
- Instrumental delivery; forceps, vacuum
- Caesarean section

- Repair of vulval, vaginal and cervical laceration
- Use of anti-hypertensives, sedatives, anticoagulants, oxytocics, antibiotics
- Marsupialisation of Bartholin's cyst
- Post-operative management
- Laproscopy for ectopic
- Repair of episiotomy and perineal tear
- Myomectomy
- Insertion of IUD, Norplant
- Identification of surgical instruments

4.14 Dermatology

- Skin manifestation of common systemic diseases
- All common bacterial skin infections
- All common fungal skin infection
- Eczemas / allergic conditions

4.15 Ear, Nose and Throat (ENT)

4.15.1 Ear

- Applied anatomy of the ear
- Trauma to the ear - laceration, torn ear lobe, abrasions
diagnosis and management
- Wax and FB diagnosis and treatment, removal
syrringing of ear
- Infections
 - Acute otitis externa clinical features and management, antibiotics
 - Acute and chronic otitis media – types, clinical features, treatment, complications
 - Labyrinthitis clinical presentation and treatment
- Facial Palsy causes, clinical features treatment
- Otagia causes and management
- Deafness / hearing assessment

4.15.2 Nose

- Anatomy
- Trauma to the nose types, treatment
- FB in nose clinical features, treatment – removal using
using bent probe
- Epistaxis causes and management
- Infections
 - rhinitis clinical features, treatment

- acute and chronic sinusitis clinical presentation, investigations, treatment, antral wash out, refer
- Halitosis causes and management
- Anosmia causes and management
- Tumors
- Cancer of Maxillary sinus clinical presentation – refer

4.15.3 Throat

- Applied anatomy of the pharynx
- FB in throat identify and remove e.g. fish bone
- Infections
 - Acute and chronic Pharyngitis causes, clinical features and treatment
 - Tonsillitis acute and chronic, clinical complications, management, indications for surgery
 - Laryngitis clinical features, complications and treatment
- Obstructed air-way identify and manage, tracheostomy, refer
- Dysphagia causes, clinical features and management
- Hoarseness of voice infection, malignancy, investigation and management
- Malignancies cancer of retropharyngeal space, clinical features, treatment, radio therapy

4.15.4 Skills Required in ENT

- Good history taking and physical examination
- Removal of foreign bodies from;
 - ear; removal or syringing
 - nose; using bent probe
 - throat e.g. fish bone
- Debridement and suturing of laceration of the ear and nose
- Experience in or observation of antral washout, tracheostomy

4.16 Ophthalmology

- Anatomy and Physiology of the eye
- Refractive Errors recognition of major refractive errors by visual acuity tests referral to optician
- Trauma to the Eye
 - Abrasions diagnosis and treatment
 - Laceration diagnosis and treatment
 - Contusion diagnosis and treatment
 - Penetrating injuries diagnosis, 1st Aid, refer

- Foreign body in the eye diagnosis and removal
- Inflammatory diseases of the eye bacteria, viral, parasitic and allergic diagnosis and management with antibiotics and antihistamines
- Cataract/Glaucoma diagnosis and referral
- Chalazion diagnosis and management, curettage
- Subconjunctival loa loa Entropion
- The red eye causes and treatment
- Pterygium diagnosis and refer

4.16.1 Skills Required in Ophthalmology

- Removal of FB in eye
- Suturing lacerations of the eye
- Saline eye wash
- Management of chalazion
- Testing for refractive error
- Use of the ophthalmoscope

4.17 Mental Health

- Introduction to mental health
- Non-Psychiatric Disorders
- Headache
- Seizures aetiology, clinical presentation investigation – FBC, X-ray of skull, urine R/E, EEG, CT Scan
- Dizziness/Syncopal Attacks aetiology, clinical presentation, investigation – FBC, x-ray of skull, urine R/E, EEG
- The unconscious patient investigation and management
- Organic disorders
 - Cerebral malaria
 - Renal failure
 - Uraemia
- Psychiatric Disorders

- The acutely disturbed patient
- Depression causes, clinical features, mild/severe, management
- Insomnia causes, clinical presentation, investigation and treatment (manic depressive illness)
- Bipolar disorder
- Alcoholism and drug abuse
- Anxiety Disorder mild and severe, diagnosis and management
- Schizophrenia aetiology, clinical presentation, investigation and management
- Management of the psychiatric patient
- Indications for hospital and home management
- Clinical Psychology
- Doctor/Patient communication
- Basic principles of psychotherapy
- Stress aetiology, clinical features, management
- Suicide aetiology, prevention

4.17.1 Skills Required in Mental health

- Very good history taking
- Mental state examination
- Physical examination
- Communication skills
- Exposure to x-ray and EEG procedures
- Rapid sedation

4.18 **Imaging/Radiotherapy/Chemotherapy**

- Interpretation of radiological films e.g. Chest, Spine, Pelvis, Skull, Abdomen
- Special x-ray films
 - Intravenous urogram
 - Barium meal
 - Barium enema
 - Hysterosalpingogram
 - CT scan
 - Myelogram

- Microbiology
 - Taking of samples of various specimen fluids, e.g. throat swab, wound swab
 - Vaginal swab
 - Experience at plating, different media for culture and interpretation of various colonies
 - Experience at staining techniques and examination of slides under microscope
 - How to use sensitivity discs and interpretation of results

- Pathology
 - Interpretation of urea, electrolytes and creatinine, results (RFT)
 - Interpretation of Liver function Tests, Random and fasting blood sugar, lipid
 - Medico-legal profile tests, uric acid, thyroid function tests
 - Experience at autopsy in mortuary
 - Identification and interpretation of organ pathology – gross and histological
 - Issuance of autopsy report
 - Medical/legal aspects of autopsy

4.21 **Health Administration / HMIS Management** - On the job. The course to be undertaken as part of the fellowship programme

Prepared by:
 Academic Committee – 2004
 Updated: March 2011

GHANA COLLEGE OF PHYSICIANS AND SURGEONS
Fellowship Programme in Family Medicine

- Objective:** To produce a Family Physician with a sub-specialty or a generalist Family Physician with the requisite knowledge, skills and attitude to provide leadership, service, teaching and research within the context of primary care.
- Pre-entry Qualification:**
1. Membership of Ghana College of Physicians (GCP), the West African College of Physicians (WACP) or equivalent.
 2. Post membership work experience in Ghana of at least 1 year spent in a district hospital or polyclinic with a comprehensive practice. *(It is recommended during this period, that the candidate initiates correspondence application and processes for the sub-specialty of interest).*
 3. Registration with the Ghana Medical & Dental Council as a Specialist Family Physician.
 4. A 2-page Statement of Interest.
- Exit Qualifications:** Fellow of the Ghana College of Physicians in the faculty of Family Medicine. The designation will be FGCP (FamMed)
- Duration of Training:** Minimum of 2 years.

STRUCTURE OF PROGRAMME

1. First Six (6) Months – the candidate will

- Work in a supervisory role in an accredited centre to consolidate general family medicine.
- Participate in in-patient, out-patient and community services as well as in teaching.
- Attend an advanced research methodology course and seminars/workshops on teaching, leadership and management skills.

2. Next Eighteen (18) Months

- The candidate will begin training in the chosen sub-specialty area in a teaching hospital either locally or abroad.
- A scholarly writing based on original research in the sub-specialty or a curriculum development project shall be produced by the candidate at the end of the training.
- Candidates pursuing fellowship in General Family Practice will also be required to either

write a dissertation in a core area of family medicine or write reports of 20 cases managed by candidate during the period of training. The case distribution shall be as follows:

- Adult medicine - 3 cases
 - Women's health - 3 cases
 - Child health - 3 cases
 - General surgery - 2 cases
 - Mental health - 2 cases
 - Trauma/orthopaedics - 2 cases
 - Men's health - 1 case
 - Ophthalmology - 1 case
 - ENT - 1 case
 - Oncology/palliative care - 1 case
 - Elective - 1 case
- For training available in Ghana, there may be a period of attachment in an institution outside Ghana for a duration not exceeding 6 months.

EXAMINATION AND CERTIFICATION

1. After a minimum of 2 years training, the trainee may present himself for examination.
2. a. Candidates pursuing a sub-specialty shall present a *dissertation* or a *curriculum development project* and a certificate of completion to the College to be eligible for a final examination.
b. Candidates pursuing General Family Practice shall present a *dissertation* or a *casebook* and a certificate of completion to the College to be eligible for a final examination.
3. These shall be submitted at least 3 months prior to the date of examination.
4. The examination will consist of a 2 – hour viva voce covering:
 - Core areas in Family Practice
 - Defense of original dissertation or casebook.
5. Where appropriate, the examining panel shall include a specialist in that sub-specialty.

SUB-SPECIALTY AREAS

1. Faculty Development / Medical Education
2. Geriatrics
3. Hospice & Palliative Care
4. Women's Health
5. Adolescent Medicine
6. Preventive Medicine

7. Sports & Exercise Medicine
8. Occupational Health
9. Emergency Medicine
10. Travel Medicine and International Health
11. Dermatology
12. Integrative medicine
13. Research

Candidates can choose any of the above sub-specialty programmes and apply to be done either abroad or in Ghana depending on availability.

May 2009

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