# NATIONAL POSTGRADUATE MEDICAL COLLEGE OF NIGERIA



# CURRICULUM FOR SUBSPECIALTY OF GLAUCOMA

# **FACULTY OF OPHTHALMOLOGY**

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# NATIONAL POSTGRADUATE MEDICAL COLLEGE OF NIGERIA

# FACULTY OF OPHTHALMOLOGY

# THE CURRICULUM

# **FOR**

# SENIOR RESIDENCY IN GLAUCOMA SUBSPECIALTY

2022

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# **CHAPTER 1**

#### **PREAMBLE**

# **Introduction and Philosophy**

Glaucoma is a robust subspecialty within the field of ophthalmology in Africa, as well as worldwide. The subspecialty focuses on the diagnosis and management of glaucoma and related diseases. Glaucoma as a subspecialty in the Faculty of Ophthalmology will provide needed manpower with relevant knowledge and skills to plan and organize resources for the management of related eye diseases in this field.

The glaucoma sub-specialty curriculum will follow a training pathway that will enable trainees to develop the competencies required to support the delivery of eye care to patients with more complex and complicated disorders. Trainees will be expected to acquire skills to train at junior residency level to prevent complications arising from poor management of the common disorders as well as manage such complicated cases.

This 36-month subspecialty Fellowship is intended to prepare candidates for a career as a glaucoma subspecialist with knowledge and skills in the prevention and management of eye disorders resulting from glaucoma and related diseases.

#### Vision

To provide trained manpower in glaucoma subspecialty that will meet the needs of the regional and global population.

#### Mission

To train glaucoma subspecialists with knowledge and skills in the prevention and management of eye diseases in this field in sufficient numbers in order to address the gap of manpower shortage in the delivery of an effective, efficient and qualitative eye health both locally and internationally.

#### **Aims and Objectives**

To develop manpower for the diagnosis and management of glaucoma related disorders at the specialist level.

To develop specialists skilled and knowledgeable in the practice of glaucoma with particular focus on research and training in eye health system and health services.

## **Expected Learning outcomes**

At the end of the subspecialist training in glaucoma, the trainee is expected to:

Build on the knowledge, skills, and competencies of the junior residency years and develop into an all-round competent ophthalmologist with generic core competencies in common eye disorders, including administrative, and medical education skills

Be skilled in taking history and performing physical examination geared towards making appropriate diagnoses of glaucoma diseases

Effectively and efficiently utilise diagnostic tools/services to make diagnoses, develop management plans, and manage other common ophthalmic conditions and refer to other subspecialists as necessary

Effectively function as a communicator, collaborator, partner, advocate and manager in the discharge of his/her duties and obligations

Exhibit confidence as a trainer and health care manager and confidently be able to establish and develop tertiary level health care and training programmes for glaucoma disorders

Effectively teach and train resident doctors, optometrists, medical students and other allied eye health workers, as well as have the capacity and ability to provide the required mentoring and leadership in an eye care team setting

Competently and responsibly initiate and conduct basic, clinical, epidemiological and translational research either independently or as a research team member. The trainee is expected to develop and pursue knowledge in and advancement of glaucoma disorders through scientific enquiry, clinical research, project design and completion, along with publications and presentations at learned society activities

Consistently exhibit and demonstrate the highest levels of ethics and professionalism in their relationships with patients and their families, colleagues, allied eye health workers, other stakeholders in the health sector, and the society. The trainee will be expected to have imbibed the skills for maximizing personal growth and career/ life aspirations, and also, incorporating volunteerism/altruism into their life plans.

## Training in Glaucoma subspecialty

The training in glaucoma subspecialty shall take place in accredited training Centers of the College in Nigeria and any other place so designated.

## **Training Admission Requirements**

Completion of a minimum of 24 months rotations in general ophthalmology at the Part I level of the National Postgraduate Medical College of Nigeria (NPMCN) or its equivalent A pass at the Part I examinations of the NPMCN in ophthalmology or its equivalent

# Mode of entry into the training programme

A written application to the College through the Faculty of Ophthalmology of NPMCN for admission into the glaucoma subspecialty training programme by a candidate gainfully employed in an accredited Centers.

# **Components of the training:**

The program aims to train ophthalmologists in the diagnosis and management of common diseases of the eye in the areas of clinical evaluation, use of various investigative procedures, medical treatment, surgical intervention and research. The clinical training involves fellows working in rotation through four of the other six subspecialties (i.e., Cornea & Anterior segment, Neuro-ophthalmology, Paediatric ophthalmology and strabismus as well as Public and Community Eye Health ) in the first 12 months of their rotations. They will be encouraged to evaluate patients' problems in detail, using logic and clinical data to arrive at an accurate diagnosis. The trainee will be expected to provide triage services for the full spectrum of glaucoma related diseases presenting to the Unit.

# The major components of the glaucoma subspecialty shall be:

Clinical exposure will combine outpatient, inpatient and surgical experience. The trainee assumes increasing responsibility for patient care, under the supervision of trainers. They learn to evaluate patients and perform procedures independently, and effectively follow up the cases. In addition to the clinical training, the Fellow is required to participate actively in research, presentations, publications, and in training of other ophthalmology residents and medical students in the Institution.

Research exposure will require trainees to engage in basic, clinical, epidemiological or clinical research and/or clinical trials and descriptive retrospective studies and develop an in-depth

working knowledge of the current scientific literature of medical and surgical advances. They are expected to participate in relevant meetings/courses within and outside the National Medical College, as well as those hosted by Local, National or International Ophthalmology societies. Trainees are also expected to participate in any on-going research projects within their training Institution in a basic or clinical field related to their area of interest. Time is allotted appropriately for this experience, and its value is enhanced by careful supervision, availability of laboratory facilities, and access to technical assistance.

Teaching exposure ensures that teaching is an integral part of the fellowship experience. The trainee is expected to be an instructor to other resident ophthalmologists, optometrists, medical students, and other allied ophthalmic personnel in the training institution. The trainees are expected to present cases at Grand Rounds and participate as instructors or lecturer at educational activities in their training Institutions through practical and didactic presentations and improve their techniques of examinations and interpretation of ancillary tests.

Eye care policy and management exposure will be facilitated by involvement in the Public Eye Health activities of the training Institution, Ministries of Health and State eye care programmes. Trainees will be expected to be involved in the organisation, conduct and management of the Public Eye Health programs in the State of residence or the nearest State with an eye care program and that of the training Institution including but not limited to satellite eye care facilities, outreach programs, eye camps and community eye health educational campaigns and the Federal or State Ministries of Health.

# **Duration of training**

The training duration in Glaucoma subspecialty shall be for a minimum of 36 months for a regular resident or as may be decided by the Faculty or the College for other qualifications.

#### **Rotations**

Table 1

S/N	Course code	Courses	Duration (months)	Contact academic time (hrs/wk = Total hrs)	Contact Clinical/ Surgical time (hrs/wk = Total hrs)	Credit units
1	OPH 926	Cornea & Anterior segment senior posting	3	4(48)	35(420)	12.5
2	OPH 928	Neuro-ophthalmology senior posting	3	4(48)	35(420)	12.5
3	OPH 930	Paediatric ophthalmology and Strabismus senior posting	3	4(48)	35(420)	12.5
4	OPH 931	Public and Community eye health senior posting	3	4(48)	35(420)	12.5
5		Glaucoma Subspecialty	24	4(384)	35(3,360)	100

#### **Course Description**

This course aims to impart both basic and advanced skills in glaucoma management. It teaches the aetiologies, classifications, evaluations, and management with emphasis on complicated cases as well as surgery related complications. The principles and ethical decision-making process in management and good patient communication techniques are also taught.

**Expected Competences** 

To perform the complete preoperative ophthalmologic examination of glaucoma patients, including the consent for procedures. Comprehensive medical management of the glaucoma patient.

To be able to describe the epidemiology, clinical features, evaluation, diagnosis, differential diagnosis, and management of intraoperative and postoperative complications of glaucoma surgeries, including trabeculectomy and non-trab glaucoma surgeries and use of drainage devises. To understand and manage advanced glaucoma surgeries, including intraoperative and postoperative complications.

To develop and exercise clinical and ethical decision making in glaucoma patients, as well as develop good patient communication techniques.

#### **Course title**

Mechanics of aqueous humor dynamics and the anatomy of the anterior chamber and angle.

The epidemiology of glaucoma.

Evaluation of Glaucoma.

Tonometry and principles of tonography.

Optic nerve and nerve fiber layer anatomy in glaucoma.

Perimetry, including kinetic and automated static perimetry.

Gonioscopy

Medical management of glaucoma.

Surgical management of glaucoma

Major clinical trials in glaucoma (e.g. Glaucoma Laser Trial, Normal Tension Glaucoma, Study, and Advanced Glaucoma Intervention Study.

Glaucoma imaging.

## **CHAPTER 2**

## **DOCTOR OF MEDICINE (MD) DEGREE IN OPHTHALMOLOGY (OPTIONAL)**

Admission into this MD degree programme is only for medical doctors with MBBS or MBChB degree and are already admitted into residency training programme in Ophthalmology and registered as an associate fellow of the National Postgraduate Medical College of Nigeria and is strictly by:

- Having passed Primary FMCOph Fellowship Examination or Exemption from Primary Examination of NPMCN
- ii. Having passed Part I FMCOph Fellowship Examination of NPMCN
- iii. The duration of the MD is minimum of 6 semesters post Part I in an accredited training Institution.
- iv. Defense for MD thesis will be conducted by examiners in the Faculty of Ophthalmology as appointed by the National Postgraduate Medical College of Nigeria (NPMCN)

## **Philosophy**

Candidates will focus on the creation of new and innovative knowledge. The MD degree is primarily for individuals with goals in ophthalmology **Research or Teaching**.

The NPMCN Senate oversees the MD degree programmes and its requirements, which entail coursework and independent research. Generally, the programme is for resident doctors undergoing residency training in the Faculty of Ophthalmology, NPMCN and other sister Colleges as approved by the Senate of NPMCN. It consists of course work during residency training in accredited residency training institutions during junior residency training period and first 2 years of senior residency training period in ophthalmology and independent research during the senior residency training period in ophthalmology.

The NPMCN MD degree programme ensures that Residents have a breadth and depth of knowledge in a particular discipline or area and candidate's ability to conduct research is assessed by the preparation of a written thesis.

# a. GLAUCOMA SUBSPECIALTY COURSES – 24 MONTHS

# LIST OF CORE COURSES IN GLAUCOMA AND THEIR CREDIT UNITS:

S/N	Course code	Courses	Duration (months)	Contact academic time (hrs/wk = Total hrs)	Contact Clinical/ Surgical time (hrs/wk = Total hrs)	Credit units
1	OPH 949	Mechanics of aqueous humor dynamics and the anatomy of the anterior chamber and angle.	2	4(32)	35(280)	8.3
2	OPH 950	The epidemiology of glaucoma.	2	4(32)	35(280)	8.3
3	OPH 951	Evaluation of Glaucoma	4	4(64)	35(560)	16.7
4	OPH 952	Tonometry and principles of tonography	2	4(32)	35(280)	8.3
5	OPH 953	Optic nerve and nerve fiber layer anatomy in glaucoma.	1	4(16)	35(140)	4.2
6	OPH 954	Perimetry, including kinetic and automated static perimetry.	2	4(32)	35(280)	8.3
7	OPH 955	Gonioscopy	1	4(16)	35(140)	4.2
8	OPH 956	Medical management of glaucoma.	3	4(48)	35(420)	12.5
9	OPH 957	Surgical management of glaucoma	4	4(64)	35(560)	16.7
10	OPH 958	Major clinical trials in glaucoma	1	4(16)	35(140)	4.2
11	OPH 959	Glaucoma imaging.	2	4(32)	35(280)	8.3
		TOTAL	24	4(384)	35(3360)	100

# **MANDATORY COURSES:**

# (a) College-based courses:

Course code	Course Courses	Duration(months)	Contact		Credit units
Course code	Course	Duration(months)	academic	-	Credit units
			time in		
D) (C 0.51	D 1	1 1	hours		
PMC 951	Research	1 week	30	-	2
	Methodology in				
	Medicine				
	Course				
PMC 952	Health	1 week	30	-	2
	Resources				
	management				
	Course				
PMC 953	Ethics in	1 week	30		2
	Clinical				
	Practice				
PMC 901	Advanced	1 week	30		2
	Trauma Life				
	Support				
	(ATLS)				
PMC 998	Seminars				6
PMC 999	Dissertation	Concurrently during			12
	writing,	senior residency			
	literature	_			
	gathering, data				
	analysis and				
	submission				
	TOTAL				8

# (b) Faculty-based courses:

bubeu courses.				
Clinical	2 weeks	60	-	4
ophthalmology				
Revision course				
Advanced	1 week +4	30	24 hours	3
Community	days hands-			
ophthalmology	on			
course				
	ophthalmology Revision course  Advanced Community ophthalmology	ophthalmology Revision course  Advanced Community ophthalmology On  1 week +4 days hands- on	ophthalmology Revision course  Advanced Community ophthalmology On  Advanced days hands- on	ophthalmology Revision course  Advanced Community ophthalmology On  Advanced days hands- ophthalmology On  24 hours

#### ADDITIONAL COURSES:

PMC 998 Seminars 6 credit units

PMC 999 Thesis/ Dissertation 12 credit units

Senior Residents in glaucoma subspecialty are to rotate through OPH 926, OPH 928, OPH 930 and OPH 931 (**giving 50 credit units**) in the first 12 months of training. The concluding 24 months will be devoted to core postings in the specialty (giving **100 credit units**) as well as 5 College compulsory courses(24 credit units) and 2 Faculty compulsory courses(5 credit units) to achieve **50+100+8+5+18=181 Credit units**.

#### CORE COURSES IN THE SUBSPECIALTY

#### **Course Content**

This course covers the following;

**OPH 949-** Mechanics of aqueous humor dynamics and the anatomy of the anterior chamber and angle – Embryology and Anatomy of anterior chamber angle, Physiology of Aqueous production and composition, Aqueous outflow, trabecular and uveoscleral outflow, other pathways of aqueous outflow, factors affecting aqueous production and outflow, measurement of aqueous production and outflow facility, episcleral venous pressure.

**OPH 950-** The epidemiology of glaucoma – Epidemiology of primary open angle glaucoma (Nigeria, Africa, World), epidemiology of Angle closure glaucoma, Epidemiology of childhood glaucomas, Magnitude of glaucoma blindness, Epidemiology of other glaucoma types.

**OPH 951-** Evaluation of Glaucoma – Detailed history and examination of the glaucoma patient, plus slit lamp bio-microscopy, Classification and staging of glaucomas, Glaucoma blindness prevention strategies, Risk assessment of glaucoma, Target pressure, direct and indirect gonioscopy, introduction to secondary glaucomas.

**OPH 952-** Tonometry and principles of tonography – Association between intra-ocular pressure (IOP) and glaucoma, measurements of IOP, Determinants and factors affecting IOP, Infection control in tonometry, Measurements of facility of outflow (Tonography).

**OPH 953**- Optic nerve and nerve fiber layer anatomy in glaucoma – Anatomy of the optic nerve and nerve fibre layer, Blood supply of the optic nerve, Optic disc and nerve fibre changes in glaucoma

**OPH 954-** Perimetry, including kinetic and automated static perimetry – Kinetic and Automated static perimetry in glaucoma including Humphrey perimeter, Glaucomatous visual field loss, Interpreting a visual field print-out, Factors affecting perimetry results, Analysis of visual field progression, Microperimetry, frequency-doubling technology (FDT), short-wavelength automated perimetry (SWAP)

**OPH 955-** Gonioscopy – Direct and indirect gonioscopy, Gonioscopic grading systems, Gonioscopic assessment and abnormal angle structures, UBM gonioscopy

**OPH 956-** Medical management of glaucoma – General principles of medical management of glaucoma, Target pressure, Anti-glaucoma agents + New topical medications (types, mechanism of action, uses, side effects), Fixed dose combinations, Medical treatment in children and pregnancy.

**OPH 957-** Surgical management of glaucoma: To provide a minimum experience in the management of patients with refractory glaucoma and acknowledge variations in practice patterns, Subspecialty Resident should perform a variety of glaucoma procedures and not be

limited to just a single approach. It is recommended that they perform and become proficient in trabeculectomy with antimetabolites, tube shunts, and cyclodestructive procedures. It is recommended that fellows perform a sufficient number of glaucoma procedures to achieve competence (eg, 20 glaucoma procedures as primary surgeon and 20 glaucoma procedures as assistant surgeon). They should become proficient with laser trabeculoplasty, iridotomy, and iridoplasty procedures. They should also perform postsurgical follow up, including suture lysis and be able to manage complications, including malignant glaucoma, failing or leaking blebs, hypotony, and choroidal detachments and hemorrhages.

**OPH 958-** Major clinical trials in glaucoma; Key objectives, conclusion and clinical relevance – Ocular Hypertension Treatment Study, Collaborative Initial Glaucoma Treatment Study, Glaucoma Laser Trial, Normal Tension Glaucoma Study, Advanced Glaucoma Intervention Study, Tube vs. Trabeculectomy Study, AVB: Ahmed Versus Baerveldt Study, LiGHT: Laser in Glaucoma and ocular Hypertension study.

**OPH 959-** Glaucoma imaging — Optical coherence tomography, Anterior segment imaging in glaucoma, Anterior segment optical coherence tomography, Ultrasound biomicroscopy (UBM), Pachymetry, Confocal scanning laser ophthalmoscopy, Scanning laser polarimetry, ocular bloodflow measurements

#### **Teaching Method**

Lectures, seminars presentations, surgery practicals, ward rounds, clinic case study discussions, and assignments.

#### Resources

Computers and internet access, • Journals

Research materials and videos from World Glaucoma Association (WGA), International Council of Ophthalmology, (ICO), International Agency for Prevention of blindness (IAPB), American Academy of Ophthalmology (AAO) and WHO databases.

Data from health facilities/national data (FMOH & Fed. Min. of Industries Labour and Productivity)

Ophthalmologic Patients' simulators/ mannequins - Cataract, SICS, phacoemulsification, trabeculectomy, Suturing

#### Assessment methods

Formative: class exercises, assignments

Summative: Examination, projects.

## **Examination and formative Assessment format**

Mode of formative assessment:

Continuous assessment activities recorded and scored in the purposive specialty log books.

Eligibility for final examination

Training for the stipulated minimum duration

A logbook indicating that the needed training has taken place

Submission of a dissertation in relevant topic in basic, community or clinical glaucoma. The proposal must have been approved at least 12 months before the Fellowship examinations date. The supervisors must meet the requirement for accreditation of a training centre

#### CHAPTER 4

#### CERTIFYING EXAMINATION OF THE COLLEGE

### 4.1 Application for College Certifying Examinations

The Fellowship Examinations are held twice a year in March/April/May and September/October/November. A call for application is published in at least one of the National Daily newspapers and College website in December and June for the March/May and September/November examinations respectively.

Candidates are advised to watch out for and comply with the examination application requirements as outlined in these advertisements.

# 4.2 Assessment methods for MD Degree

These will include practical exercises, assignments and tests, Formative assessment, Summative assessment, Thesis presentation and thesis defence examination will be administered at the end of the course.

This thesis defence will take place at least 6 months before the Part II Final for FMCOph.

- **4.3 Teaching Methods:** This will include didactic lectures, seminars, case studies, assignments and practical sessions.
- **4.4 Resources:** Computers and internet access, Journal articles, Research materials from the ICO and American Academy of Ophthalmology.

## 4.5 Part II Fellowship Examination

The Part II Examinations is designed to complete the assessment of professional competence in ophthalmology before the award of the Fellowship in Ophthalmology (FMCOph). Candidates are eligible to write the examination at least by the 36<sup>th</sup> month of senior residency training.

**4.5.1 Dissertation Proposal Preparation and approval:** The dissertation proposal should have at least 2 supervisors one of whom must be a Fellow of the Faculty and agree to critically supervise the design, collection of data, analysis of data and general write up of the dissertation. Submit written attestations by the supervisors indicating their willingness to supervise the project for the dissertation

The criteria to qualify as a supervisor is as the prevailing approval by the Faculty and the College. The proposal should be considered in a departmental seminar and approved by the department before sending to the ethical review board.

Approval from the relevant institutional review board or ethical approval for the study should be obtained before registration of the dissertation proposal with the College.

Exams shall be done not earlier than 12 months after proposal for dissertation has been approved by the College

The format for the Proposal and the Dissertation book is as in the main Faculty Curriculum and as approved by the College.

# **4.5.3** Components of the Part II Fellowship Examinations

The Part II Fellowship Examinations shall consist of:

#### 4.5.4 Format of the examination

- a) A dissertation addressing a problem or topic relating to glaucoma to be submitted for an oral defense of the dissertation before an examination panel consisting of at least two eligible examiners
- b) An oral examination (VIVA VOCE) consisting of two sections:
- i) General Ophthalmology where the candidate is expected to meet a set of at least two examiners to answer THREE questions in general ophthalmology over a 30-minute period
- ii) Glaucoma: where the candidate is expected to meet a set of at least two sub-specialists to answer SIX questions in the subspecialty over a 60-minute period.

The ORALS (VIVA VOCE) will cover the following components:

Principles of Ophthalmology- 10

Medical, Tropical and Surgical Ophthalmology including pathology in candidates Subspecialty area (Glaucoma) -70

Community Ophthalmology -10

Management and other soft Skills- 10

## Oral (Viva Voce)

The purpose of Viva Voce is to cover as wide a field as possible with the candidate. Each candidate is subjected to fourty-five minutes oral examinations dealing with principles of surgery, pre-and post-operative management, surgical pathology, diagnostic modalities and operative surgery mostly directed at the subspecialty of interest.

**The Standard setting method for Orals** - Borderline group method should be used to obtain the pass score.

#### 4.5.5 Classification of Examination Results

To pass the examination, a candidate must:

- a) Have his/her dissertation accepted at P or P+ level. **OR Passed MD Thesis defense at least 6 months earlier.**
- b) Pass the Orals which is the Viva Voce
- c) Conditions for Provisional Pass, Referral in Orals, Referral in Dissertation and Fail
  - i. A candidate whose dissertation needs some significant corrections, i.e. *P* level pass, but who had passed Orals shall have a Provisional Pass.
  - ii. The corrections of the dissertation shall be made within three months and must be satisfactorily vetted by one of the examiners before it can be accepted. Once accepted, the provisional pass is converted to a full pass by the College.
- iii. A candidate who has his/her dissertation accepted as *P* or *P*+ level but fails in Orals shall be referred in the Orals only.
- iv. A candidate who scores a P-level pass in the Dissertation and fails the Orals shall be deemed referred in Orals with Provisional Pass in Dissertation.

- v. The candidate would be required to make the corrections in the book within 3 months after the exams and if satisfactory to the examiners, will be expected to repeat only the Orals.
- vi. However, if the dissertation remains unacceptable to the examiners, the candidate would be required to sit both the dissertation and the Orals.
- vii. A candidate, having passed the Orals but whose dissertation needs major restructuring, i.e. *P-1* level, shall be referred in the Dissertation only.
- viii. A candidate whose dissertation needs major restructuring, i.e. *P-1* level and also failed the Orals is deemed to have failed the entire exam.

Pass: means a pass or provisional pass in dissertation and a pass in Oral examinations

#### **4.5.6** Publication of the Results

The results of the Fellowship examinations in Ophthalmology are published by the College Registrar on approval by the Senate

# 4.5.7 Correspondence

The National Postgraduate Medical College of Nigeria or the Faculty of Ophthalmology does not normally enter into correspondence or discussion in respect of the details of a candidate's performance in the examination.

# 4.6 Designation of Fellowship in glaucoma subspecialty

The designation of a fellowship in Glaucoma of the College shall be: FMCOph (Glaucoma)

#### **4.7 Publication of** the Results

The results of the Fellowship examinations in Ophthalmology are published by the College Registrar on approval by the Senate

## 4.8 Correspondence

The National Postgraduate Medical College of Nigeria or the Faculty of Ophthalmology does not normally enter into correspondence or discussion in respect of the details of a candidate's performance in the examination.

#### CHAPTER 5

#### ACCREDITATION OF TRAINING INSTITUTIONS GUIDELINES

# 5.1 Training Institution eligibility criteria

Shall meet the requirements of the Faculty of Ophthalmology of NPMCN training requirements in Comprehensive ophthalmology

Facility and equipment: inclusive of in-hospital radiology, community medicine, basic biochemistry, haematology, microbiology and ophthalmic histology services with the requisite manpower

Accredited comprehensive ophthalmology services

Manpower: at least one glaucoma specialist with a minimum of 5 years post fellowship OR minimum 10 years running the glaucoma service.

Case load:

Minimum number of procedures

Clinic load of a minimum number of cases per week/month per trainee

#### 5.2 UNIFORM CRITERIA/GUIDE FOR ACCREDITATION

The Senate of National Postgraduate Medical College of Nigeria at its meeting of 3<sup>rd</sup> December 2015 approved Uniform Criteria /Guidelines for Accreditation of Training Institutions as follows:

#### **BASIS**

The College recognizes that the training of specialist requires

- 1. Qualified and experienced personnel
- 2. Appropriate infrastructure
- 3. A well-structured training programme that recognizes modern trends of training and assessments
- 4. Opportunities and evidence of acquisition of skills
- 5. Access to up-to-date information
- 6. Regular feedback and evaluation from trainers and trainees

# PHILOSOPHY: The process must be:-

Fair

Done when the institution is ready

> Transparent

What is being assessed and persons assessing is known to all

Objective

Minimal bias in the choice of the accreditors – usually not from the institution of affiliates

Instructive

Feedback given to heads of Institutions

Monitored

Reaccreditation done after a clearly defined period – 5 years (Full), 2 years (Partial)

#### **DEFINITIONS AND WEIGHTING**

MANDATORY REQUIREMENT

1. Qualified personnel

The College approved that the basic qualification for training is the Fellowship of College (by examination or election but not honorary). The individual must have had at least 5 years' experience working in a training institution and must be financially up-to-date. It is also expedient that departments in Institutions should have a good mix of the College training in the country so that trainees will have the maximum benefits of current rules and regulations governing their training. Weighting should be 15% of total accreditation score

# 2. Appropriate Infrastructure

This is a major pillar without which training cannot take place. What is appropriate will be defined by faculties. But facilities must be well constructed and maintained with the basic amenities

- a. light
- b. water
- c. waste disposal

Available and with adequate backup. These includes

- a. wards
- b. out patients clinic
- c. laboratories
- d. theaters
- e. radiological suites, etc

The weighting shall be a minimum of 10% of total accreditation scores. This can be sub-divided into core infrastructure (5%) and support infrastructure (5%)

# 3 **Equipment**

The College noted that equipment is an essential component in the acquisition of skills and competence. The minimum equipment needs will be determined by faculties and the procedure/log book will be necessary in assessing this component. The weighting shall be a minimum of 20% of total accreditation score.

# 4. **Structured training programme**:

The College has approved curricula and required competencies that trainees are expected to acquire. It is expected that institutions have a well-publicized (every trainee should have it in writing) structured programme which faithfully implemented and evaluated by a departmental residency committee. This programme must be seen by the accreditation team. Weighting should be 15% of total accreditation score.

# 5. Opportunities/ Evidence of skill acquisition

In recognition that our profession is an apprenticeship, all trainees must be provided with the opportunities of acquiring the necessary skills to be competent as a specialist. Records of such must be seen. This includes a procedure registrar, theater list and log book. Weighting should be 15% of total accreditation score.

#### **DESIRABLE REQUIREMENT**

#### 6. Access to new information

This is a crucial element in making our trainees lifelong learners. It is therefore expected that there should be institutional support for trainees to attended updates, revisions, conference and seminars. It is also expedient that trainees acquire the skills at making presentation at departmental meetings and other scientific of professional. The library and the internet are veritable sources of information and it is expected that training institutions have such facilities accessible to the trainees. Evidence of all these must be seen. Weighting should be 15% of total accreditation score

# 7. **Regular feedback and evaluation**:

Evaluation is an important aspect of training. It is recognize that assessment can be formative /continues or summative. The College traditionally have carried out summative examinations at the end of each part. However, training requires regular feedback from trainers to trainees and vice versa. Mentorship builds on the concept of regular evaluation, feedback, appropriate guidance and counseling of trainees. A good training programme must have these inbuilt and faithfully carried out. Weighting should be 10% of total accreditation score.

Total score is 100% or 100 points

TABLE 7: ACCREDITATION TABLE OF REQUIREMENTS AND GRADING

No	Requirement		Inadequate 0	Partially Adequate 7.5	Full Adequate 15
1.	Qualified and experienced personnel a. Prescribed number (full time/Part b. prescribed trainers: trainees ratio c. support personnel	time (15 Points)			
2.	Appropriate infrastructure  a. basic: water, light, sewage etc  b. core departments presents  c. support departments presents	(10 Points)			
3	Equipment a. core equipment b. support equipment	(20 Points)			
4	Well-structured training programme a. seen by all b. content (lectures, tutorial, bedside	sessions ) (15 Points)			
5	Opportunities/ Evidence of skill acqui a. Procedure Register b. Theater List c. Log Book	` /			
6	Access to new information(15 point) a. library	(15 Points)			
7	Regular feedback and evaluation	(10 Point)			
8	TOTAL				

< 0=49 (Scores less than 50%) - Accreditation Denied</li>
 ≥50-74 (Scores equals to 50% and Less than 75%) - Partial Accreditation for 2 years
 >75-100 (Scores equals or greater than 75% and above) - Full Accreditation for 5 years

# 2. Effectiveness/function/role of visiting Consultants

- i. A visiting Consultant should have a minimum of 5 years post Fellowship experience.
- ii. No training should take place in any institution without permanent consultants on ground.
- iii. There must be documented evidence of activities of a visiting Consultant that residents are being supervised by him/her.
- iv. For the purpose of accreditation the full time equivalent should be as follows: 2 visiting Consultants to 1 Full time Consultant.

## 3. Period of Accreditation

- i. Partial accreditation should last for 2 years. Within the period of the Partial accreditation, one monitoring visit should be made to the institution.
- ii. Full accreditation should last for 5 years. Within the period of the Full accreditation, two monitoring visits should be made to the institution.

#### 4. Effective Date of Accreditation

The effective date for existing accreditation should be with effect from the date of visitation, irrespective of the time the Senate approves the report.

The effective date for new accreditation should be from the date of Senate approval.

#### 5. Trainers/trainee ratio

The ratio of Residents to consultants should be minimum of 3:1 or Maximum 4:1. That is, One (1) Senior Registrar and Two (2) Registrars OR Two (2) Senior Registrars and Two (2) Registrars to one Consultant.

6. The number of Consultants is not the sole determinant for accreditation status, either as partial or full.

Every other criteria are taken into account to arrive at the verdict of either Partial or Full accreditation.

1. For any re-accreditation visit, the report of the previous accreditation visit should be made available to the current nominated panel member, to enable them to compare notes and ensure that progress is being made.

## **5.3 SUMMARY OF ACCREDITATION VISIT:**

Should accompany the accreditation report and in formats approved by the College and the Faculty and contained in the main Faculty Curriculum

## **APPENDIX**

# LITERATURE AND STUDIES FOR REVIEW INCLUDE GENERAL REFERENCES (BOOKS)

Early Manifest Glaucoma Trial (EMGT)

The Fluorouracil Filtering Surgery Study (FFSS)

The Collaborative Normal Tension Glaucoma Study (CNTGS)

The European Glaucoma Prevention Study (EGPS)

The Collaborative Initial Glaucoma Treatment Study (CIGTS)

The Ocular Hypertension Study (OHTS)

The Advanced Glaucoma Intervention Study (AGIS)

Tube vs Trabeculectomy Study (TVT)

Ahmed vs Baerveldt Study (AVB)

The Glaucoma Laser Trial (GLT)

Laser in Glaucoma and ocular HyperTension study (LIGHT)

Low-Tension Glaucoma Treatment Study(LoGTS)

Effectiveness in Angle-closure Glaucoma of Lens Extraction(EAGLE) study

Neuroprotection in Glaucoma

Genetics of glaucoma

Selected Review Articles.

Note that this list is not exhaustive.