

NATIONAL POSTGRADUATE MEDICAL COLLEGE OF NIGERIA



OTOLOGY SUBSPECIALTY RESIDENCY TRAINING

PROGRAMME

FACULTY OF OTO-RHINO-LARYNGOLOGY (HNS)

APPROVED BY THE SENATE ON 3RD MARCH, 2022

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**NATIONAL POSTGRADUATE
MEDICAL COLLEGE
OF NIGERIA**

**FACULTY OF OTORHINOLARYGOLOGY-HEAD
& NECK SURGERY**

**OTOLOGY SPECIALTY
Residency Training
Programme**

**FACULTY OF OTORHINOLARYNGOLOGY
-HEAD & NECK SURGERY**

**NATIONAL POSTGRADUATE
MEDICAL COLLEGE OF NIGERIA**

MISSION STATEMENT

**TO TRAIN OTOLARYNGOLOGISTS-HEAD AND
NECK SURGEONS WHO WILL EXCEL IN CLINICAL
DUTIES, COMMUNITY HEALTH SERVICE,
EDUCATION AND RESEARCH.**

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PREFACE

DESCRIPTION OF RESIDENCY PROGRAMME IN ORLHNS

The programme is a 6-year course which commences in an accredited institution after passing the Primary Fellowship examination of the Faculty. The training is in two parts, the junior and the senior residency programmes.

The **Junior Residency** training is a 3-year programme, which consists of 18 months rotation in ORLHNS of which one month will be spent in Audiology Immersion, 3 months rotation in Accident and Emergency, 6 months rotation in General Surgery, 2 months rotation in either Plastic Reconstruction Surgery or Maxillofacial Surgery, 2 months rotation in Neurosurgery, 2 months rotation in Cardiothoracic Surgery, 2 months rotation in Ophthalmology and one month rotation in Anaesthesia. On completion of the posting, candidate can apply to sit for the Part 1 Fellowship Examination in ORLHNS, submit the log book and must have **acquired** the **minimum surgical skills** approved by **the Faculty Board** before the candidate will be eligible to sit for this exam.

The **senior residency** training is a 3-year programme to be spent in ORLHNS in an accredited institution. The training commences after passing the Part 1 Fellowship Exam. Residents in this cadre will continue to improve their clinical and surgical skills, teach juniors in areas of surgery and patient care and exercise management skills. The Senior Residency is divided into two segments: first year of Otorhinolaryngology-Head and Neck Surgery and a Final two years for super specialty training. In these last two years candidates can choose to continue with General Otorhinolaryngology-Head and Neck Surgery or branch out into one of the following: Otology, Rhinology and Allergy, Head and Neck Surgery, or Paediatric

Otorhinolaryngology. After completion of the 3 years senior residency training rotation and submission of the dissertation to the College, the candidate can apply to sit for the Part II Fellowship Examinations. Candidate must also submit the log book and must have acquired the minimum surgical skills approved by the Faculty Board before the candidate will be eligible to set for this exam.

Candidates may also choose to undertake the Postgraduate Doctor of Medicine in ORLHNS (Postgraduate MD). Those who choose this route will defend their Postgraduate MD thesis at least 30 months after Passing Part I examination, and before sitting for Part II Final Fellowship examination. Those who have successfully defended their postgraduate MD thesis will only sit the oral examination in their Part II Final Fellowship examination (The requirement of Part II Fellowship dissertation is deemed to have been fulfilled by the Postgraduate MD Thesis).

GUIDELINES FOR USE

1. Upon registration as an Associate Fellow in an ORLHNS Residency Programme, each Resident must obtain a Log Book at the current price. It is his/her responsibility to ensure that it is kept safe and intact throughout his/her period of training.
2. It is the Resident's responsibility to enter each case s/he manages and/or operates on in the appropriate column with date and the Supervising Consultant must sign each entry singly. **No block signing of procedures.**
3. Supervising Consultant in each surgical rotation must assess the operative skill of the resident according to the criteria listed in the log book for surgical procedures/clinical skills **performed** by the Resident.
4. When s/he has completed his/her posting and meets the **minimum criteria set by the Faculty Board on surgical skill acquisition in all the rotation and on level of training**, it is his/her responsibility to present himself/herself to his/her Consultant/Trainer.

5. The Consultant will then assess the Resident and complete the column in respect of his/her own judgment as to the level of knowledge and competence demonstrated by the Resident and sign his/her name in the column provided.
6. It is important that the assessment exercise takes place continuously throughout the posting. Both Resident and Consultant must avoid a situation where this Log Book is completed in a rush in the last days of posting.
7. If there are competency areas identified, taught and assessed in a particular training institution that are not contained in the print out, the programme coordinator should feel free to add on such areas in the blank pro-forma included.

.....
Secretary, Faculty Board of ORLHNS.

.....
Chairman, Faculty Board of ORLHNS.

AIM

The aim of the programme is to train aspiring surgeons in Otorhinolaryngology-Head & Neck Surgery so as to produce specialists who will be well equipped to practice as competent Ear Nose Throat, Head & Neck Surgeons.

LEARNING OBJECTIVE:

The objective of the programme is to train a highly qualified Specialist/ Consultant Otorhinolaryngologist-Head and Neck Surgeon competent to manage all ORLHNS disorders at various levels.

The Trainee by the end of the programme shall:

- Be able to, independently, manage ORLHNS problems to the highest level of competence.
- Be able to set up, organize and manage surgical services in the district/regional/tertiary hospitals.
- Provide consultancy services where ever is needed, and therefore will increase access to quality ORLHNS care,
- Teach residents, medical officers, medical students and other health care providers in ORLHNS.
- Engage in research activities

ADMISSION REQUIREMENT:

Candidates must have a qualification registrable by the Medical & Dental Council of Nigeria.

Candidates must have served the pre-registration year/years in their own country or in any other country accepted by the Medical & Dental Council of Nigeria and must have been fully registered. Candidates must have had at least one year of post-graduation experience, which should be of general clinical duties acceptable to the College.

COURSE DURATION:

A minimum of 6 years made up of:

- 3 years for the Junior Residency (Part I).
- 3 years for the Senior Residency (Part II) is considered adequate (comprising one year of General ORLHNS and 2 years of super-specialty training: Otology).

COURSE STRUCTURE:

The course is structured into:

1. Primary
2. Part I
3. Part II (with or without MD prior to Part II Final Fellowship Examination)

COURSE CONTENT:

COURSE CONTENT FOR PRIMARY IN ORLHNS

This is essentially a Pre-Residency training. It shall consist of the following Basic Sciences subjects.

ORL 910 Anatomy (6 Credit Units)

2.1.1 Head and Neck

Osteology of the skull, jaws and cervical vertebrae

The Scalp

The Face

Topography of the Neck

The root of neck (Thoracic Inlet)

Anatomy of the vessels and nerves of the Head and Neck

The lymphatic drainage of the Head and Neck

The oral cavity and contents

Anatomy of the Pharynx, Larynx, Trachea and Oesophagus

Infratemporal and pterygopalatine fossae

Temporomandibular joint

The Orbit and its contents

The Nose and paranasal Sinuses

The Auditory apparatus
The major Salivary glands
Thyroid and Para thyroids

2.1.2 **Developmental Anatomy**

Development of the Pharynx, Larynx, Trachea, Oesophagus, Oral Cavity, Nose and Sinuses. Development of the Ear (External, Middle Ear Cleft, Inner ear), Face and major vessels of the Head and Neck in relation to congenital anomalies of the Ear, Nose and Throat.

2.1.3 **Neuro-Anatomy**

The brain- surface anatomy and major divisions, cranial nerves meninges, venous sinuses and cerebral vessels. Brain stem and its centres and connections. Anatomy of circulation of the cerebrospinal fluid. Essentials of development of brain in relation to ENT Autonomic nervous system.

2.1.4 **Thorax:**

Anatomy of:

- Thoracic wall and diaphragm
- The Thoracic cavity – heart and lungs
- The Tracheobronchial tree and oesophagus

2.1.5 **Abdomen**

Anatomy of the abdominal wall

Gross anatomy of abdominal viscera

2.1.6 **Radiologic Anatomy** Plain and contrast radiography of the head, neck, thorax and upper gastro-intestinal tract. Ultrasound scan Computerized tomography scanning and Magnetic Resonance imaging (MRI), PET Scan and Interventional radiology.

2.1.7 **Histology:**

Microscopic structure of normal tissues

Intercellular Anatomy

Basic principles of Histochemistry

Brief introduction to Electron Microscopy
Nasal and Paranasal Sinuses
External, Middle and Inner Ear
Oral cavity – Pharynx, Larynx, Oesophagus, Tracheobronchial tree, Salivary glands, Thyroids and Parathyroids.

ORL 911 APPLIED PHYSIOLOGY: (INCLUDING BIOCHEMISTRY, CHEMICAL PATHOLOGY AND PHARMACOLOGY) (6 Credit Units)

2.2.1 General Physiological Principles:

- Structure of Living Matter
 - Biological interaction
 - The living cell, functions and changes in its mechanism
 - Function of nucleoproteins in the integration of the cell as a unit of living matter
- Energy Changes in the living system:
 - Thermodynamics of the living organism and its potential energy status
 - Oxygen – utilisation of the living cell
 - Heat production and Heat loss. (Basal metabolism, specific dynamic action, regulation of body temperature)
 - Energy transformation
 - Homeostasis
- General Considerations in Water, Electrolytes and Acid-Base Balance:
 - Distribution of water and electrolytes in extra and intracellular spaces of the body.
 - Brief survey of biological transport of water and solutes
 - Water and electrolytes balance
 - Causes and effects of dehydration and oedema
 - Sodium and Potassium Metabolism
- Acid-Base Balance
 - PH Regulation:
 - pH of the body fluids and buffer systems of the body
 - Respiratory and metabolic acidosis and alkalosis as encountered in surgical practice.
- Enzymes and Co-Enzymes

- Effects of enzymes in intermediary metabolism
- General aspects of metabolism of carbohydrates, lipids and proteins and nucleoproteins
- General principles of nutrition in surgery including parenteral nutrition, vitamins, folic acid, vitamin deficiencies
- Mineral Metabolism
 - Iron. Calcium/Phosphate/ Magnesium, Vitamin D and Parathyroid Hormones
- Effects of Physical Agents:
 - Radiation
 - Hypothermia
 - Hyperthermia
 - Hyperbaric Oxygen
- Principles of Electronics

ORL 912 Systematic Physiology (4 Credit Units)

2.3.1 Haemodynamics

- Flow – Basic principles of Cardio-Vascular Physiology
- B.P. – Changes in Hypertension, Hypotension, Shock, Syncope
- Venous circulation and venous pressure
- Haemorrhage – Clotting mechanism

2.3.2 Auditory Apparatus:

- Functions of External, Middle and Inner Ear

2.3.3 Respiratory System

- Physiology of the Nose and Paranasal sinuses
- Physiology of the Larynx
- Pulmonary ventilation and control
- Protective mechanism of the lungs

2.3.4 Mouth, Pharynx and Oesophagus

- Mechanism of deglutition
- Oesophageal function

2.3.5 Special Senses

- Taste and smell

2.3.6 Applied Physiology or Muscles

- Electromyography

2.3.7 Endocrines

- Pituitary, Thyroids and Parathyroids
- Adrenals – Steroids, Corticosteroids and their actions
- Metabolic and Endocrine response to surgery

2.3.8 Nervous System

- Consciousness and higher integrated functions.
- Sensation, Motor System, Pyramidal and Extra pyramidal systems, maintenance of muscle tone.

2.3.9 Physiology of Pain

ORL 913 Pharmacology (4 Credit Units)

2.4.1 General Principles of Pharmacology

- Route of Administration, Absorption, Distribution and Excretion of Drugs
- Mechanisms of Drug Action
- Dose – Effect relationship, biological assay
- Factors Modifying Drug Effects:
 - Age, Body Weight, Route of Administration, Timing, Distribution, Excretion, Environmental and Genetic Factors, Drugs interaction
- Drugs Toxicity
- Development, Evaluation and Control of Drugs: Clinical Trial

2.4.2 Specific Classes of Drugs

- Anaesthetic agents, Antibiotics, Steroids, Chemotherapeutic agents
- Drugs action on the autonomic nervous system
- Choline and anti-choline drugs: Sympathetic and Adrenergic Drugs.
- Drugs acting on the cardiovascular system
- Antituberculous, Antihelminthic and Antiamoebic Drugs

- Cancer Chemotherapy
- Antiretroviral therapy

ORL 914 General Pathology (3 Credit Units)

This shall be largely concerned with general pathology, General principles underlying disease process:

Inflammation, Trauma, Degeneration, Repair, Hypertrophy, Hyperplasia, Blood coagulation, Thrombosis, Embolism, Infarction – Ischaemia, Neoplasia, Oedema, Principles underlying tissue replacement.

ORL 915 Microbiology (3 Credit Units)

Routine diagnostic methods, identification of Bacteria, Viruses (HIV, HPV and EBV) and other organisms of surgical importance, Common parasitic and fungal diseases in the tropics.

Principles of sterilization and disinfection.

Principles of immunology, toxic antibodies, allergy: the immune diseases.

Methods of action of antibodies.

ORL 916 Chemical Pathology (3 Credit Units)

Basic principles of fluid and electrolyte balance

Blood chemistry

Liver metabolism: hepatic function tests, jaundice, detoxication

Kidney:

Principles of urinalysis

Tests for secretory function

Renal handling of Na⁺ and K⁺

ORL 917 Haematology (3 Credit Units)

Blood Groups

Haemoglobin Genotype

Blood Transfusion

Indications

Complications

Common Haematological diseases

Anaemia

Sickle cell disease

Leukaemia

Disorders of coagulation

PART I COURSE:

This is divided into 2 clusters of 12 months and 6 months duration respectively for the ORLHNS I & ORLHNS II and 18 months of surgical specialty training.

ORL 918 ORLHNS I:

12 months in Otorhinolaryngology-Head and Neck Surgery. Candidates should acquire basic skills in examination of patients as well as perform basic operations in ENT such as:

Removal of foreign bodies in the Ear Nose and Throat

Tonsillectomy

Adenoidectomy

Drainage of mastoid abscess

Nasal operations

Para-nasal sinus operation and other head and neck operations

Drainage of abscesses in the head and neck

SURGICAL SPECIALTY TRAINING

18 months of rotation in the following related specialties

ORL 919 2 months in Ophthalmology

ORL 920 2 months in Neurosurgery

ORL 921 2 months in Cardiothoracic surgery

ORL 922 6 months in General Surgery

ORL 923 3 months in Accident and Emergency medicine

ORL 924 2 months in Maxillofacial or Plastic and
reconstructive surgery

ORL 925 1 month in Anaesthesia

ORL 926**ORLHNS II:**

This should consist of ORLHNS Training of 6 months at a relatively more advanced nature.

Log book should be obtained at the inception of Part I ORLHNS to document operative surgery and other activities.

PART II: FELLOWSHIP IN ORLHNS with or without super-specialty certification**Duration: 3 Years Post Part I**

After passing the Part I examination, the candidate must spend three years acquiring higher surgical/clinical skills in ORLHNS in an accredited institution. Skills must be acquired in the following surgical/Clinical procedures.

- Laryngectomy and Voice rehabilitation
- Neck dissection
- Pharyngectomy
- Maxillectomy (partial and total)
- Surgery of the Salivary glands

All types Sinus Surgery including Functional Endoscopic Sinus Surgery (FESS).

- Plastic operations in ORLHNS
- Mastoid Surgery and Middle & Inner Ear Surgery
- Microlaryngeal surgery and Laser Surgery
- Panendoscopy and Bronchoscopy

ROUTINE FOR RESIDENTS

- Daily morning ward rounds by the Trainee and evening ward rounds by trainee on call
- Weekly teaching ward rounds with the Consultant
- Attendance at outpatient clinic with the Consultant available for advice and discussion
- Weekly tutorials with the Consultant
- At least twice a week operation session

- Monthly clinic-mortality and clinical audit meetings with the Consultant
- Monthly journal club meeting with the Consultant
- Monthly Clinico-Histopathology Seminars
- Monthly Clinico-Radiology Sessions
- Monthly seminars in specific topics with Consultants
- Weekly head and neck oncology joint clinics
- Trainees will conduct clinical research and publish a paper with the Consultant
- The College will organize regular skills workshop for Trainees

COURSE CREDIT UNITS FOR JUNIOR RESIDENCY TRAINING IN OTORHINOLARYNGOLOGY-HEAD AND NECK SURGERY

- One (1) hour of Lecture/Tutorial/Seminar every week for 15 weeks (Semester Equivalent) = 15hours = 1 credit unit.
- Three (3) hours of Clinical exposure/skills acquisition every week for 15 weeks (Semester Equivalent) = 45hours = 1 credit unit.
- Clinical exposure/Skills acquisition:
 - 8 hours regular work day for five working days = 40 hours a week
 - 40 units of call duty per month (40 X 8 hours) = 320 hours (or $320/4 = 80$ hours a week)
 - Total exposure per week = $40 + 80 = 120$ hours
- Residency Program is a continuum except for annual leave; hence 52 Weeks less 4 weeks annual leave = 48 working weeks = 3 semester equivalent.

POSTINGS	DURATION IN MONTHS	CONTACT LECTURES HRS/WK	CONTACT CLINICALS HRS/WK	CREDIT UNITS
ORL 918 ORLHNS I	12	5	120	16+128 =144
ORL 919 OPHTHALMOLOGY	2	5	120	3+21 =24
ORL 920 NEUROSURGERY	2	5	120	3+21 =24
ORL 921 CARDIOTHORACIC SURGERY	2	5	120	3+21 =24
ORL 922 GENERAL SURGERY	6	5	120	8+64 =72
ORL 923 ACCIDENT AND EMERGENCY	3	5	120	5+32 =37
ORL 924 MAXILLOFACIAL SURGERY OR PLASTIC AND RECONSTRUCTIVE SURGERY	2	5	120	3+21 =24
ORL 925 ANAESTHESIA	1	5	120	1+11 =12
ORL 926 ORLHNS II	6	5	120	8+64 =72
ORL 927 Basic Surgical Skill Course.				2
ORL 928 Temporal Bone Dissection Course				2
ORL 929 Endoscopic Sinus Surgery Course.				2
PMC 901 Advanced Trauma Life Support				2
TOTAL	36			441

A minimum of 441 credit units over a period of 36 months in the appropriate postings will make a candidate eligible to sit for the Part I Fellowship Examinations.

COURSE CREDIT UNITS FOR SENIOR RESIDENCY TRAINING IN OTORHINOLARYNGOLOGY-HEAD AND NECK SURGERY

- One (1) hour of Lecture/Tutorial/Seminar every week for 15 weeks (Semester Equivalent) = 15hours = 1 credit unit.
- Three (3) hours of Clinical exposure/skills acquisition every week for 15 weeks (Semester Equivalent) = 45hours = 1 credit unit.
- Clinical exposure/Skills acquisition:
 - 8 hours regular work day for five working days = 40 hours a week
 - 40 units of call duty per month (40 X 8 hours) = 320 hours (or $320/4 = 80$ hours a week)
 - Total exposure per week = $40 + 80 = 120$ hours
- Residency is a continuum except for annual leave; hence, 52 Weeks less 4 weeks annual leave = 48 working weeks = 3 semester equivalent.

POSTINGS	DURATION IN MONTHS	CONTACT LECTURES HRS/WK	CONTACT CLINICALS HRS/WK	CREDIT UNITS
ORL 930 OTOLOGY I	3	5	120	$5+32 = 37$
ORL 931 RHINOLOGY I	3	5	120	$5+32 = 37$
ORL 932 HEAD AND NECK SURGERY I	3	5	120	$5+32 = 37$
ORL 933 PAEDIATRIC ORLHNS I	3	5	120	$5+32 = 37$
ORL 935 OTOLOGY II	24	5	120	$32+256 = 288$
PMC 951 Research Methodology				2
PMC 952 Health Resources Management				2
PMC 953 Ethics in Clinical Practice				2
ORL 999 PART II DISSERTATION	24			12
TOTAL				454

A minimum of 454 credit units over a period of 36 months in the appropriate postings will make a candidate eligible to sit for the Part II FINAL Fellowship Examinations.

Where a candidate has difficulties fixing into appropriate accredited centres in Nigeria, postings in accredited centres acceptable to NPMCN outside the country will be countenanced for ORL 935.

GUIDELINES FOR VETTING OF APPLICATION FORM FOR PART I AND PART II IN THE FACULTY OF ORLHNS

Below are the guidelines for preliminary screening in Faculty of Otorhinolaryngology.

1. Candidate must be an associate fellow and in good standing.

2. Must be presented for examination on a platform of an accredited training institution.
3. Must submit along with the examination form his training Log Book.
4. Must submit at the end of January of every year. Annual report on the trainee duly signed by ORLHNS trainers in the department or the unit of ORLHNS.

In addition to the above

5. The submitted application form must be screened for
 - i. Verification of facts
 - ii. Mandatory postings,
 - iii. Date of postings.
 - iv. Verification of postings and signatures
 - v. Verification of fellow who signed the form.
6. Logbook verification
 - i. Verification of entries of procedures.
 - ii. Verification of cognitive programme and courses

For part I candidate.

Must show evidence that he/she has attended the mandatory courses before sitting for Part I.

- i. ORL 927 Basic Surgical Skill Course. 2 Credit Units
- ii. ORL 928 Temporal Bone Dissection Course. 2 Credit Units
- iii. ORL 929 Endoscopic Sinus Surgery Course. 2 Credit Units
- iv. PMC 901 Advanced Trauma Life Support (Surgical based Residents) 2 Credit Units

Where, for logistic reasons, a candidate is able to attend two of the three courses he/she would be allowed to sit the examinations on the proviso that he/she attends the third course before sitting Part II examinations.

For part II candidate

- i. PMC 951 Research Methodology 2 credit Units
- ii. PMC 952 Health Resources Management 2 credit Units
- iii. PMC 953 Ethics in Clinical Practice 2 credit units

TRAINING ASSESSMENT:

1. Primary (entrance examination)

The assessment will be in form of examinations and portfolio for:

1. Part I
2. Part II

PRIMARY: This examination is in multiple choice question formats with questions spread across all aspects in basic medical sciences with emphasis on aspects related to Otorhinolaryngology-Head and Neck Surgery.

Primary Fellowship Examination in Otorhinolaryngology-Head and Neck Surgery (Multiple Choice Questions).

TEST BLUE PRINT 2021

200 questions

SUBJECT	SUBJECT SUB-SPECIALTY						TOTAL
ANATOMY (with emphasis on Head and Neck) 60	Gross anatomy (ear, nose, pharynx, larynx, thyroid gland, neck) 30	Embryology 6	Histology 6	Osteology 6	Neurology 6	Organs/thorax/abdomen 6	60
PHYSIO/pharmacology 40	General 6	Respiratory 6	Special senses 14	Cardiovascular 6	Pharmacology 8		40
BIOCHEM 30	General 6	Carbohydrate 6	LIPIDS 6	Nucleic acid 6	Body fluids 6		30
PATHOLOGY 60	General 24	Morbid anatomy 8	Chem. Path 6	Haematology Blood transfusion 10	Immunology 6	Microbiology 6	60
OTHERS 10	Lab investigations 2	Clinical tests/measurements 4	ENT Clinical procedures 4				10 (GRAND TOTAL 200)

LEVEL OF DIFFICULTY OF TEST ITEMS

The determination of the level of difficulty of test items shall be based on the principles of the Bloom's Taxonomy of Educational objectives. The focus of the questions will be to test the ability of the candidate in application, analysis and synthesis (3, 4, 5 below) which should constitute at least 80-90 percent of the questions. Questions that test knowledge or recall will not be used at this level.

1. Knowledge Recall, or recognition of terms, ideas, procedure, theories, etc.
2. Comprehension Translate, interpret, extrapolate, but not see full implications or transfer to other situations, closer to literal translation
3. Application Apply abstractions, general principles, or methods to specific concrete situations.
4. Analysis Separation of a complex idea into its constituent parts and an understanding of organization and relationship between the parts. Includes realizing the distinction between hypothesis and fact as well as between relevant and extraneous variables.
5. Synthesis Creative, mental construction of ideas and concepts from multiple sources to form complex ideas into a new, integrated, and meaningful pattern subject to given constraints.
6. Evaluation: candidates make judgements about value of ideas, items and materials.

MODIFIED ANGOFF Standard setting method will be used for determining the Pass mark in each segment of the examination.

PART I:

- Formative assessment by log book
- Evaluation through annual report on each Resident by the training Department.
- Attendance at prescribed courses.

Examination: This will be in 3 parts:

1. Written

One paper of MCQ, one essay paper in principles of General Surgery and ORLHNS and a third paper in operative surgery and surgical pathology in ORLHNS.

LEVEL OF DIFFICULTY OF TEST ITEMS

The determination of the level of difficulty of test items shall be based on the principles of the Bloom's Taxonomy of Educational objectives. For the theoretical components of the examinations, including the MCQs and Essay questions, the focus of the questions will be on the ability of the candidate in application, analysis and synthesis (3, 4, 5 below) which should constitute at least 80-90 percent of the questions. Questions that test knowledge or recall will not be used at this level.

1. Knowledge Recall, or recognition of terms, ideas, procedure, theories, etc.
2. Comprehension Translate, interpret, extrapolate, but not see full implications or transfer to other situations, closer to literal translation.
3. Application Apply abstractions, general principles, or methods to specific concrete situations.
4. Analysis Separation of a complex idea into its constituent parts and an understanding of organization and relationship between the parts. Includes realizing the distinction between hypothesis and fact as well as between relevant and extraneous variables.
5. Synthesis Creative, mental construction of ideas and concepts from multiple sources to form complex ideas into a new, integrated, and meaningful pattern subject to given constraints.
6. Evaluation: candidates make judgements about value of ideas, items and materials.

A Clinical Examination in General Surgery.

A Clinical Examination consisting of long cases in ORLHNS.

Objective Structured Clinical Examination in ORLHNS

An oral Examination in ORLHNS.

There should be external examiner (s) in General Surgery in addition to ORLHNS Examiners.

NPMCN ORLHNS Part 1 Fellowship Examinations in Otorhinolaryngology-Head and Neck Surgery.

Theory Papers

Paper 1: MCQ

TEST BLUEPRINT

Specialty	Total questions	Domain of the Test				Remarks
		General principles	Operative surgery	Surgical pathology	OSCE	
Cardiothoracic	6	4	2			
Ophthalmology	6	2	2		2	
Neurosurgery	6	2	2		2	
Accident/Emer	10	4		2	4	
Plastic/Maxilo	12	4	2	2	4	
General Surgery	20	6	6	4	4	
<i>Sub total</i>	<i>60</i>	<i>22</i>	<i>14</i>	<i>8</i>	<i>16</i>	
Audiology/Hearing Aid	10	6			4	
Otology	30	14	4	6	6	
Rhinology	30	14	4	6	6	
Laryngology	30	14	4	6	6	
Allergy	10	4		4	2	
Endoscopy	6		2	2	2	
Head/Neck Surgery	20	6	6	4	4	
Speech/Language	4	2		2		
<i>Sub Total</i>	<i>140</i>	<i>60</i>	<i>20</i>	<i>30</i>	<i>30</i>	
Grand Total	200	82	34	38	46	

The determination of the level of difficulty of test items shall be based on the principles of the Bloom's Taxonomy of Educational objectives. For the theoretical components of the examinations, including the MCQs and Essay questions, the focus of the questions will be on the ability of the candidate in application, analysis and synthesis (3, 4, 5 below) which should constitute at least 80-90 percent of the questions.

Questions that test knowledge or recall will not be used at this level.

Paper 2: General Principles

- a. General Surgery 2 questions
- b. Otorhinolaryngology-Head and Neck Surgery 3 questions
(one each in otology, rhinology, head and neck surgery, or Paediatric ORLHNS)

Paper 3: Operative Surgery and Surgical Pathology 5 questions
(distributed evenly over otology, rhinology, head and neck surgery, or Paediatric ORLHNS)

Clinicals and Orals

General Surgery: Long Case
Otorhinolaryngology-Head and Neck Surgery: Long Case
OSCE
Orals

(distributed evenly over otology, rhinology, head and neck surgery, or Paediatric ORLHNS)

A candidate is deemed to have PASSED if he passes in all areas/parts of the examination including a PASS in CLINICALS.

A Candidate is deemed to have FAILED if he FAILS the Clinicals; his passing the other areas/parts of the examination notwithstanding.

The College approved Standard setting method will be used for determining the Pass mark in each segment of the examination:

MCQ: MODIFIED ANGOFF Standard setting method will be used for determining the Pass mark in each segment of the examination.

ESSAY

Borderline regression method shall be used

CLINICAL

OSCE: Manned Station - Borderline group method shall be used.

Unmanned Station - Modified Angoff Method shall be used.

ORALS

Oral examination shall be structured to allow all candidates have the same questions. Standard setting method - Borderline group method shall be used.

PART II

Formative assessment will include

- The log book
- Mandatory Faculty and College courses in Research Methodology, Management Course, and Ethics.

Examinations

- a. Dissertation Defence
- b. Oral examination I (Radiology films and histopathology pots specimen)
- c. Oral examination II (instruments and operative surgery in ORLHNS)
 - A candidate is deemed to have passed if he passes ALL the 2 component parts (Defence of Dissertation and Viva Voce).
 - Where he/she successfully defends the dissertation but fails the Viva component, he is REFERRED in the component he failed.
 - Where he/she did not successfully defend the dissertation but passes the Viva component, he is REFERRED in the component he failed.
 - He/she is expected to resit that component at the next Fellowship examinations. The date of PASS is the date he/she passed the referred component of the examination.
 - Candidates who choose the MD route, and successfully

defended their thesis, will be deemed to have satisfied the dissertation component of the Part II Final Fellowship Examination. Hence, they will only sit the Orals component of the examination.

- The College approved Standard setting method will be used for determining the Pass mark in each segment of the examination: Oral examination shall be structured to allow all candidates have the same questions. Standard setting method - Borderline group method shall be used.

LEARNING METHODS: This will be through the following:

- Clinical apprenticeship
- Hands-on training in clinic, wards and theatre
- Formal lectures, tutorials, case presentations, seminars
- Self-directed learning, research and reading
- Senior residents to teach and supervise junior residents
- College and faculty courses and workshops (some of which are mandatory)
- Attendance at medical conferences

ORL 918 & ORL 926 JUNIOR OTORHINOLARYNGOLOGY- HEAD AND NECK SURGERY ROTATION (216 Credit Units)

OBJECTIVES

1. Learn and master Basic Ear /Nose/Throat/Head and Neck examination using otoscope, head mirror, head light, pharyngeal/laryngeal mirrors, nasal and ear specula and rigid/flexible endoscopes.
2. Learn and acquire basic knowledge of audiological/vestibular tests.
3. Learn about the imaging of the Ear, Nose, Throat, Head and Neck and attend joint radiology/ENT seminars.
4. Learn about histopathological specimen and attend joint histopathology/ENT seminars.
5. Teaching of Clinical interns.
6. Learn, assist and perform basic E.N.T operations.

SURGICAL SKILLS EXPECTED TO BE ACQUIRED DURING ROTATION.

	MINIMUM REQUIREMENTS	
Removal of foreign bodies in the external ear	A (10)	P (5)
Aural examination and dressing with microscope	A10	P10
Myringotomy under LA in Adults	A5	P5
Myringotomy under GA in children	A5	P5
Myringoplasty	A5	P5
Excision of preauricular sinus	A5	P5
Excision of post auricular cyst	A5	P5
Removal of foreign bodies in nose	A10	P10
Antral Lavage	A10	P10
Intranasal antrostomy	A10	P10
Diathermy to turbinates/SMR	A5	P5
Partial turbinectomy	A5	P5
Nasal polypectomy	A10	P10
Septal surgery	A5	P5
T & A in children	A10	P5
Tonsillectomy in adults	A10	P5
Tracheostomy in adults	O5/A5	P5
Tracheostomy in children	A10	P5
Removal of foreign body in larynx	A5	P5
Pharyngoscopy Rigid/Flexible	A10	P5
Direct Laryngoscopy Rigid/Flexible	A10	P5
Oesophagoscopy	A10	P5
Branchial cyst excision	O2/A2	P5
Removal of superficial lesion	A5	P5
<i>Drainage of peritonsillar abscess</i>	A5	P5
Drainage of Retropharyngeal abscess	A5	P5

WHERE

O	=	OBSERVE
A	=	ASSIST
P	=	PERFORM
A/P	=	EITHER ASSIST OR PERFORM

AUDIOLOGY ROTATION (EMBEDDED IN ORLHNS I)

OBJECTIVES/SKILLS EXPECTED

Resident should be able to:

1. Understand and appreciate the need for standardization and calibration in auditory testing.
2. Perform and interpret accurate air and bone conduction hearing thresholds.
3. Understand the theory of masking techniques and perform.
4. Understand the theory, perform and interpret impedance audiometry with special reference to measurement of middle ear pressure and identification of stapedial reflexes.
5. Perform and interpret speech audiometry.
6. Understand the theory, interpret and to be able to perform evoked response audiometry
7. Understand the theory, interpret and to be able to perform Otoacoustic emission audiometry.
8. Understand the difficulties and the needs of the hard of hearing.
9. Understand the full range of assistive devices for the hard of hearing, and their application.
10. Understand the indications for prescribing a hearing aid.
11. Understand the full range of electronic hearing aids and the advantages and disadvantages of each type.
12. Understand hearing aid batteries and be able to make ear mould.
13. Understand (have participated in) the hearing aid selection procedure.
14. Understand (have participated in) and appreciate the value of auditory counselling.
15. Understand the risk factors for neonatal hearing loss.
16. Understand neonatal screening programs.
17. Understand the steps to be taken when hearing loss is suspected in a young child.
18. Be aware of the full range of support programs available to the hard of hearing in Nigeria.
19. Understand the theory and construction of cochlear implants, together with patient selection and post implantation auditory assessment and counselling.

20. Be aware of and sensitive to the attitude of the Deaf Community as it relates to intervention by the medical profession. by visiting the Deaf school.
21. Understand the theory, perform and interpret vestibular assessment results.
22. Understand the theory of Speech and Language disorders and the various rehabilitation modalities.

SKILLS EXPECTED TO BE ACQUIRED DURING ROTATION

Pure Tone Audiometry	O5	P10
Speech Audiometry	O5	P10
Tympanometry	O5	P10
Otoacoustic Emission	O5	P10
ABR	O5	P10
Ear Mould Making	O5	P10
ENG	O5	P10

ORL 919 OPHTHALMOLOGY (24 Credit Units)

Objectives

1. To acquire ophthalmology skills in the management of ENT related diseases.
2. Acquiring knowledge/skills in the clinical management and diagnosis of various ophthalmology diseases.

Skills to be acquired

Minimum Requirements

1. Ophthalmoscopy	P10
2. Removal of FB	A5
3. Removal of Pterygium	A5
4. Evisceration	A5
5. Enucleation	A5
6. Cataract Extraction	A5
7. Repair of Laceration of the Eyelid	P5
8. Cannulation of the nasolacrimal duct	A5 P10

ORL 920 NEUROSURGERY (24 Credit Units)

OBJECTIVES

- 1 To acquire neurosurgical skills helpful in the management of ENT related diseases.
- 2 Acquiring knowledge/skills in the clinical management and diagnosis of various neurosurgical diseases.

Skills expected to be acquired

1.	Exploratory burr holes	A5	P
2.	Use of operating microscope in neurosurgical procedures	A5	P
3.	Lumbar Puncture	A	P5
4.	Craniotomy	A5	P
5.	Laminectomy	A5	P
6.	Shunts	A5	P
7.	Excision of Myelomeningoceles	A5	P

ORL 921 CARDIOTHORACIC SURGERY (24 Credit Units)

OBJECTIVES

1. Assessment of cardiovascular and respiratory systems.
2. Understand the interaction of cardio-pulmonary disease on medical and surgical treatment of otolaryngology head/neck patients.

Skills expected to be acquired

(1) Bronchoscopy / Oesophagoscopy	A5	P5
(2) Techniques of arterial/venous access	A10	
(3) Thoracentesis	A5	P5
(4) Tube Thoracostomy Physiologic monotony techniques O ₂ saturation, Cardiac output		P5
(5) Pleural Biopsy	A5	
(6) Lung Biopsy	A5	
(7) Mediastinoscopy	A5	
(8) Thoracotomy	A5	

ORL 922**GENERAL SURGERY (72 Credit Units)****OBJECTIVES**

1. Acquire Basic Surgical Skills
2. Acquire skills in Surgical procedures
3. Learn the rudiments of pre-operative and post-operative care
4. Learn to work as a team

Skills expected to be acquired		Minimum Requirements	
1	Incision making/ Skin suturing/ Knot tying	A5	P10
2	Selection of abdominal incisions	A5	P10
3	Laparotomy incision and closure of abdominal wall	A5	P10
4	Excision of Skin/ Subcutaneous Lesion	A5	P10
5	I & D Subcutaneous abscess	A5	P10
6	Suture of Laceration	A5	P10
7	Excision of benign/ malignant breast lesion	A5	P10
8	Biopsy of enlarged nodes cervical, axillary, inguinal submandibular	A5	P10
9	Endoscopy of Digestive System Proctoscopy/ Sigmoidoscopy Oesophagoscopy Gastroscopy Anoscopy	A5	P10
10	Gastric Surgery Pyloroplasty, Gastroenterostomy Closure of Perforated Ulcers	A5	P10
11	Intestinal Colostomy	A5	P10
	Resection and anastomosis of small bowel	A5	P10
	AP resection	A5	
	Lysis of Adhesions	A5	
	Appendectomy	A5	P5
	Excision of hemorrhoid	A5	P5
12	Liver		
	Incisional Liver Biopsy, Local Excision of Liver Lesion,	A5	
13	Biliary Tract		
	Cholecystostomy Cholecystectomy		
	Exploration of common bile duct	A5	

14	Pancreas Whipple procedure	A5	
15	Laparotomy for acute abdomen, Splenectomy	A5	P5
16	Abdominal sepsis, Drainage of intra abdomen sepsis	A5	P5
17	Hernia and abdominal wall Repair of inguinal, femoral and ventral hernia	A5	P10

ORL 923 ACCIDENT & EMERGENCY SURGERY (37 Credit Units)

OBJECTIVES

1. Acquire skill in patient reception/Principles of Triage
2. Stabilize and care for critically injured and ill patients
3. Acquire knowledge technical skills and decision making in the management of critically ill patients
4. Exposure to trauma and polytrauma.

Skills expected to be acquired Minimum Requirement

1.	Maintenance of airway including orotracheal, nasotracheal Intubation, tracheostomy	A5	P10
2.	Techniques of Cardiac/Trauma life support	A5	P10
3.	Techniques of arterial/venous access and venous cut-downs	A5	P10
4.	Acquire skills on skin suturing techniques and cast application	A5	P10
5.	Initial management of severely injured patients, burns patients, corrosive ingestion	A5	P10
6.	Head injuries	A5	P10
7.	Initial management of Hand infections Wound debridement and suturing	A5	P10
8.	Preoperative management of intestinal obstruction, open and blunt abdominal injury intra-abdominal sepsis, head injury, neck injuries and chest injuries	A5	P10
9.	Initial management of simple limb fracture joint dislocations, care of compound		

fractures A/P	A5	P10
10. Emergency management of urinary retention, hematemesis, epistaxis red eye, FB in nose, ear and throat A/P	A5	P10

ORL 924 PLASTIC/RECONSTRUCTIVE SURGERY OR MAXILLOFACIAL (24 Credit Units)

OBJECTIVES

Comprehension of skin lesions benign and malignant
 Wound revision and closure acquire skills in optimal incision
 Various method of wound approximation
 Wound healing problems e.g. Immunocompromised

Skills expected to be acquired	Minimum Requirements	
1 Anticipation of surgical manouvres, gentle traction on tissues etc	A5	P5
2 Excision of skin tumours	A5	P5
2 Skin topical care and preparation of wound closure	A5	P5
3 Variety of wound closure design of incision Z plasty, Flaps	A5	P5
5 Split thickness skin graft	A5	P5
6 Plating of facial fractures jaw wiring	A5	P5
7 Debridement of wounds	A5	P5
8 Local treatment and dressing of burns, eschar removal Occlusive Treatment and dressing	A5	P10
9 Reconstruction of cleft lip	A5	P5
10 Reconstruction of cleft palate	A5	P5

ORL 925 ANAESTHESIA (12 Credit Units)

OBJECTIVES

1. To be able to assess, determine suitability and fitness of a patients booked for general anaesthesia.
2. Learn the process and management of general, regional and

local anaesthesia. Appreciate the shared airway.

- Learn General, regional and local Anaesthetic Agents: injectable and gaseous and their complications.

Anaesthetic Complications

Skills expected to be acquired

(1) Preoperative anaesthetic assessment	A5	P5
(2) Induction of Anaesthesia	A10	
(3) Endotracheal Intubation	A5	P5
(4) Monitoring of patients under General Anaesthesia	O5	A5
(5) Reversal of Anaesthesia	A5	
(6) Postoperative monitoring of a patient recovering from Anaesthesia	A5	

COMPETENCE BASED GRADING OF PERFORMANCE GRADES OF PERFORMANCE SCORES

PERFORMANCE GRADE	DESCRIPTION
A	Adequate knowledge; Performs skill without supervision; can reproduce skill on request; five to six points on Affective domain.
B	Adequate knowledge; performs skill with minimal supervision; reproduces skill with minimal guidance; four to five points on Affective domain.
C	Adequate knowledge; performs skill with supervision; barely reproduces skill; 3-4 points on Affective domain.
D	Inadequate knowledge; performs skill with supervision; Unable to reproduce skill; 2 - 3 points on Affective domain.
E	Gross inadequate knowledge; unable to perform task; unable to reproduce skill; 1-2 points on Affective domain.

AFFECTIVE DOMAINS FOR ASSESSING CANDIDATES DURING TRAINING:

1. Attendance to work
2. Punctuality
3. Prompt delivery of assignments
4. Group work and interaction
5. Obeying instructions
6. Respect for patient care

GENERAL TRAINING FOR JUNIOR RESIDENTS

OBJECTIVES

Education course

Basic surgical skill course is a compulsory course for all residents before Part I fellowship examination. It is advisable that resident attend the course shortly after starting residency training or before going on general surgical rotation.

Temporal bone dissection course, Audiology course and Endoscopic sinus surgery course are compulsory courses for all residents before sitting for Part 1 fellowship examination respectively.

Research

Residents must key-in into a research work in collaboration with his/her Consultant.

Conferences

Residents are to attend local and International Conferences especially as related to ORLHNS and Surgery.

The Faculty specifically identifies **ORLSON Conference**, and it is a **mandatory** that Residents should attend.

Residents must present at least **one scientific paper** at the conference before sitting for part I fellowship examination.

POSTGRADUATE DOCTOR OF MEDICINE IN ORLHNS

MD by Course work and Thesis

This optional pre-fellowship program is available for Associate Fellows of the National Postgraduate Medical College who are currently at the Senior Resident level. Applicants will be expected to complete the online application available on the College website and in addition submit a 500 word Concept note summarizing their Research proposal and a Compact signed by the prospective supervisor.

MD by Thesis only

This option is available to interested Fellows who passed their part I examination, completed their part II training but dissertation was not a prerequisite for their part II examination. Younger Fellows who do not meet the MD by publication criteria can also apply. Candidates are to complete the online form and submit a 500 word Concept note and a Compact signed with their prospective supervisor. Those who did not complete the NPMCN post part I training will be required to do remedial courses.

MD by Publication

This option is available to senior Fellows of the National Postgraduate Medical College who have been in good financial standing for at least 10 years. Prospective candidates would have contributed maximally to postgraduate medical education primarily in the area of Part 2 Resident Dissertation supervision for any of the listed Colleges or for University Ph.D programs, evidenced by 5 successfully defended dissertations. In addition, the candidates would be accomplished medical researchers who have authored a minimum of 5 original research articles available in Pubmed in a focused narrow area as lead or corresponding author. Fellows of the West African College of Physicians and the West African College of Surgeons with 15 years Post Fellowship who meet the above can also apply.

FACULTY OF OTORHINOLARYNGOLOGY HEAD AND NECK SURGERY MD PROGRAMME COURSE CODES COLLEGE BASED COURSES

PRE-PART 1 COURSE

PMC 901 Advanced Trauma Life Support (Surgical based Residents)
2 Credit Units

POST PART 1 COURSES

PMC 951 Research Methodology 2 Credit Units

PMC 952 Health Resources Management 2 Credit Units

PMC 953 Ethics in Clinical Practice 2 Credit Units

MD COURSES

PMC 994 Medical Education 2 Credit Units

PMC 995 Advanced Research Methodology 2 Credit Units

PMC 996 Advanced Health Resources Management 2 Credit Units

PMC 997 Assessments and Examination Methods 2 Credit Units

SYNOPSIS OF COLLEGE BASED M.D. COURSES

MEDICAL EDUCATION PMC 994

This course is designed for medical and dental resident doctors. The need for doctors, involved with teaching in the medical school and postgraduate medical training to have training in teaching is widely recognized. The skills in Medical Education course has been designed to meet this need. The course is aimed at resident doctors who are new to teaching and at Fellow with years of experience who would like an update on current best practice and a greater understanding of the basic principal. The course recognize that, with appropriate help, all teacher, even those with considerable experience, can improve their skills in teaching. The topics to be taught are, standard setting in educational assessment; assessment of clinical skills, threshold concepts in medical statistics and evidence based practice; numeracy issues in learning about research; mapping and revising the learning and teaching of research; e-learning and blended in medical education; problem based learning; programme development; educational; computer

communication network; community-institutional relations; reproducibility of result; patient simulation; databases, factual; clinical decision making; selection of medical students.

ADVANCED RESEARCH METHODOLOGY PMC 995 OBJECTIVE

To facilitate acquisition of basic knowledge and necessary skills for research in Medicine and Proposal/Dissertation writing.

COURSE CONTENT

Definition, Spectrum and Types of Health Research Design; defining Research problems; Setting Objectives; Statistics and Research; Methods writing Research Proposals; (Planning, Protocol Development and Report Writing); Good Clinical Practices and Clinical Trials; Role of Computer in Medical Research (PEI Info and SPSS) Literature review; Use of Physical and Virtual Library; Use of Internet; Search Engines; Systematic Reviews and Meta-analysis; Ethical considerations in medic research. Clinical Government; Writing-up; presentation and Defense of Dissertation Faculty Based Group Discussion on Research Proposal (Practical Group Session); Evidence Based Health Care; Statistical Methods (Summary, Inferences and Interpretation); Based Principals and Method of Writing Papers for Publications Practical Sessions on Processing of proposal and Presentation to the College.

ADVANCED HEALTH RESOURCES MANAGEMENT PMC 996 OBJECTIVE

To facilitate acquisition of knowledge and necessary skills required for management of health resource in institutions and for programme.

COURSE CONTENT

Principals and application of Management; Strategic Management; Health Care Planning; Health Policy formulation and evaluation; Health Resources mobilization; Health Resources allocation; Human Resources Management; Organization; Monitoring and

Evaluation of Health Services; Performance Management; Sustainable Development; Problem Solving and Decision Making Skills; Emotional Intelligence, Leadership; Management; Materials Resources Management; Quality assurance in health and equity in health; Public/Private Part of Change; Risk Management, Legal Aspect of Medical Practice; Financial Management; Material Resources Management; Quality assurance in health and equity in health; Public/Private Partnership; Case studies/Scenarios.

ASSUAGEMENT AND EXAMINATION METHODS PMC997

Multiple Choice Questions and Objective Tests; Oral Examination; Patient Management Problems; The long clinical case; objective structured long examination record' (OSLER), the short clinical case; objective structured clinical examination (OSCE); objective structured practical examination (OSPE); objective structured picture examination (OSPICE), workplace-based assessment; mini-CEX (mini-Clinical Evaluation Exercise); direct observed of procedural skill (DOPS) and Multi-source feedback (MSF); Simulated patients; Observed Clinical Situations; Ensuring safe and effective patient care through training; Establishing and maintaining an environment for learning; Teaching and facilitating learning; through assessment; Supporting and monitoring educational progress; Guiding personal and professional development; Continuing professional development as an educator; use of standardized patient (SP) encounters; Data gathering technique (history and physical examination); Interpersonal communication; Clinical management (diagnostic strategy and treatment Plan); Professional documentation (Post encounter note or PEN); Checklists; Patient Simulators.

FACULTY BASED COURSES:

Candidates may choose any of the following Faculty Based Courses. It is advised as a guide for candidates to choose a courses in the specialty where he/she intend to spend the last one year of Senior Residency. The title of candidate's thesis expected to also fall in line with candidate's choice.

ORL 941 Advanced Otolaryngology/Head and Neck Surgery 2 Credit Units

ORL 942 Advanced Otolology 2 Credit Units

ORL 943 Advanced Rhinology 2 Credit units

ORL 944 Advanced Laryngology/Head and Neck Surgery 2 Credit units

ORL 945 Advanced Pediatric Otorhinolarngology 2 Credit Units

Seminars and Thesis are compulsory for candidates pursuing MD with Course Work

ORL 998 Seminar 6 credit units

ORL 999 Thesis/Dissertation 12 credit units

COURSES SYNOPSES

ORL 941 Adanced Otolaryngology/Head and Neck Surgery 2 credit units

This is a course that take care of general otorhinolarygology. The course content incorporates knowledge on all basic Ear, Nose and Throat, Head and Neck diseases. The global Otorhinolaryngological disease epidemiology and management (Medical and Surgical) are covered. Histopathology, Radiology and audio logical tests/procedures are covered.

ORL 942 ADVANCED OTOLOGY 2 CREDIT

This is a subspecialty course with focus on the study the Ear, its related diseases, management and rehabilitation procedures. The study of temporal, bones, skull base, Otological and neurotological disease, relevant audio logical studies (Audiometry, Tympanometry, Otoacoustic Emission, Automated Brain Response Audiometry etc) and rehabilitation are covered. Surgeries of the External, Middle, Inner Ears, Base of the skull and facial nerves are components of the course. The recent advances in this field should also be though.

ORL 943 ADVANCED RHINOLOGY AND ALLERGY 2 CREDIT

It is a subspecialty course in Nose and paranasal sinuses and its diseases. The Histology including through knowledge of the

Osteomeatal complexes, Nasal bones, sinuses, skull base are important.

The Management of the Rhinological disorders such as Infections, Trauma, Allergies, Benign/Malignant tumours, Endoscopic Sinus Surgeries and its complications including recent advancements in the field are inherent component of this course.

ORL 944 ADVANCED LARYNGOLOGY/HEAD AND NECK SURGERY 2 CREDIT

This is a study of airways, Voice and food passages. The related diseases and its management are inherent component of the course. Rehabilitative concepts and methods for voice and post- surgical measures to improve the quality of life are important. Infestations, Trauma (including foreign bodies), tumors (Benign/Malignant), voice disorders.

ORL 945 ADVANCED PAEDIATRIC OTORHINOLARYNGOLOGY/HEAD AND NECK SURGERY 2 CREDIT UNITS

This is a course that takes care of general otorhinolaryngology/Head and Neck Surgery in the paediatric age group. The course content incorporates knowledge on all basic Ear, Nose and Throat, Head and Neck diseases. The global Otorhinolaryngological disease epidemiology and management (Medical and Surgical) are covered. Histopathology, Radiology and audio logical tests/procedures are covered.

Admission Criteria for NPMCN Resident Doctors

1. Associate Fellows of the College who have been admitted into the residency program.
2. Passed the NPMCN Part 1 fellowship examination in the Faculty of ORLHNS.
3. Any other qualification deemed equivalent to NPMCN Part 1 and acceptable to the Senate of the College.

The program to be undertaken in a nearby approved center and not necessarily the one the resident is employed.

The seminars which carry 3 units each; and will be presented and graded in the local training center.

Faculty courses will be examined centrally by Faculty.

College based courses will be examined by College.

Current Residents who may have had their proposals accepted may seamlessly migrate to the MD program if they so desire but the first defense will be at least 15 months after Senate approval of the program

Admission Criteria for Resident Doctors of other Postgraduate Medical Colleges

These Resident Doctors may be admitted provided that before starting the MD program they would have passed the compulsory College courses applicable before Part 1 [ATLS] and any compulsory Faculty courses at that level

Nature of Thesis

1. A recommendation of 50,000 to 100,000 total word count for MD thesis.
2. Candidate may publish aspects of the work before defense in a manner similar to other PhD programs.
3. Arrangement of the other structures to be similar to College Part II dissertation.
4. Successful Defense to take place at least 6 months before final fellowship exam.
5. Dissertation component of Part II to-be waived for successful MD defenses.
6. Binding colors as determined by College.

DUTIES/ROLE OF SUPERVISORS FOR COLLEGE MD PROGRAMME

1. To sign application letters for Residents.

The College has developed a research compact with each MD candidate. Please ensure the candidate is working in your field or a field you qualify and are ready to supervise. You will be required to review the candidate's concept paper and work plan

and if you are satisfied, you will be expected to sign the research compact with the candidate.

2. To sign Proposals and assist with ethical approval.

To work with the candidates and help transform his / her concept paper to a workable proposal. This proposal will be handled like the Fellowship proposal- sent to assessors and if approved, you will supervise the candidate through data collection, analysis and write up for thesis defense. Please note that candidates with Part II proposals previously accepted by the College and who may wish to use such for the MD programme will only be requested to attach a letter of acceptance of proposal by the College.

3. To sign Progress reports every semester.

The experience with the residency programme has shown that the residents are a bit slow in presenting their proposals. To guard against this, the supervisors will be expected to present a report each semester to help monitor the progress of residents. This report will be initiated by the MD candidate and sent to the College through the supervisor.

4. Will be required by the College to serve as coordinator for the programme in their centers.

Each department will appoint one of the supervisors as the Departmental Coordinator. The College will appoint one of the Departmental Coordinators as Center Director. The Center Director will relate with all Departmental Coordinators and report on center and departmental activities at the training center to the College.

5. Will be required to liaise with the Centers Director and Departmental Coordinators on seminar presentations and scoring of same along the guidelines provided by the College.

The Departmental Coordinators will report to the Center Director on seminar presentations done in the department.

6. Will be allowed to witness the MD thesis defense as observers only. Supervisors are usually not allowed to attend Fellowship defense but you will be allowed to attend the MD as observers.

7. You are to encourage candidates to go for Faculty and College based courses.

The course work for the MD programme consists of one (1) Faculty based course and four (4) College based courses. Residents not running the MD programme will be at liberty to attend the Faculty courses. These courses will be held every Wednesday with the College courses alternating with the Faculty courses, each candidate will be required to present a seminar to the others in the Faculty (for the Faculty course) and all the MD candidates (for the College based courses). A pass will be required for both the Faculty courses (in an examination conducted by the Faculty) and seminar presentations to all MD candidates.

8. To encourage the institutions to allow the candidates to attend courses. Supervisors will be expected to encourage all the MD candidates to attend the Annual Scientific Conference and All Fellows Congress (ASCAF) and other professional association conferences and to encourage the Institutions to sponsor such candidates.

Supervisor/Candidate Compact

Purpose of the compact

The compact between MD candidates and their Supervisors enables their relationship to be open and predictable. The work should be jointly designed by the supervisor and the candidate taking their time in relation to other things into consideration, in order for the research to be completed within the stipulated time. Though the success of the MD programme is not guaranteed by this Compact.

The Persons listed below have gone into a Compact to carry out this MD research programme.

(Name of Candidate) Faculty: Otorhinolaryngology-Head and Neck Surgery.

(Name of Supervisor) Faculty: Otorhinolaryngology-Head and Neck Surgery.

Duties and responsibilities of the Supervisor(s)

- (1) The Supervisor should familiarize the candidate with the current rules applying to MD programme at the host training institution.
- (2) The Supervisor should strive to provide the appropriate working conditions for the candidate.
- (3) The Supervisor should commit to regularly and professionally advise the candidate and should also commit to attending meetings regularly about the work in progress of the candidate, taking into consideration the work plan and the work schedule.
- (4) The Supervisor should encourage the candidate to work independently and also support the candidate by allowing access to his patients, medical students and residents. He should also provide access to scientific environments (national and international), by introducing her/him to working groups and scientific networks, by encouraging her/him to take part in seminars, workshops and conferences, by helping her/him to prepare presentations, by providing her/him with information on possibilities to publish articles and by helping her/him in the writing process.
- (5) The Supervisor should support the candidate regarding her/his career plan and should mention possibilities for further disciplinary and interdisciplinary qualification.
- (6) The Supervisor should assess the work submitted by the candidate promptly and in a neutral way.
- (7) If there are any disputes with the candidate, the supervisor should accept arbitration with the Court of Examiners.

Duties and responsibilities of the Candidate

- (1) The candidate should produce a detailed and structured work plan and work schedule and submit to the supervisor for approval. (S)he must inform the supervisor if there are changes made to the work plan or schedule.
- (2) The candidate must get permission from the supervisor to attend specific courses related to the programme.
- (3) The candidate must regularly report on the work in progress to

the supervisor(s). The report (approximately 1-page long) should contain a description of the achievements since the last report or since the start of the MD programme, the overall progress on the research, and the participation to lectures, conferences, guest lectures, and specific workshops. In addition, the candidate must submit part of the results (e.g. chapter of the research work, draft of article) to the supervisor(s) following the work plan and the work schedule.

- (4) The candidate must strive to present her/his scientific results to the scientific community by publishing articles in peer-reviewed journals and by presenting these results at conferences.

The persons signing this Compact agree to comply with the principles of good scientific practice and ethical guidelines.

Signature:

Name of Candidate:

Name of Supervisor:

Date: Date:

Attachment: Work plan

Work Schedule

ACADEMIC REGULATIONS FOR POSTGRADUATE DOCTOR OF MEDICINE (MD)

ACADEMIC SESSION: An academic session consists of two semesters. Each semester comprises 15 weeks of teaching and two weeks of examinations.

MODULAR SYSTEM: All postgraduate programmes shall be run on modular system, commonly referred to as Course Unit System. All courses should therefore be sub-divided into more or less self-sufficient and logically consistent Packages that are taught within a semester and examined at the end of that particular semester. Credit weights should be attached to each course.

DEFINITION OF CREDIT UNIT

Credits are weights attached to a course. One credit is equivalent to

ONE CREDIT UNIT and consists of:

1 hour / week of lectures or tutorials or Self instruction per semester of 15 weeks = [15 Lecture hours] or

3 hours/ week of term paper work per semester of 15 weeks = [45 term-paper hours] or

3 hours/ week of practicals/clinicals per semester of 15 weeks. = [45 Practicals or Clinicals hours]

REQUIREMENTS FOR GRADUATION OF THE DOCTOR OF MEDICINE (POSTGRADUATE MD PROGRAMME) - A

minimum workload of 54 credit units of which:

12 credit units are for the thesis,

30 credit units are for coursework and

6 credit units are for three departmental seminars.

2 credit units for Mandatory College research methodology workshop

2 credit units for Mandatory College Management workshop

2 credit unit for departmental specialty course

SENIOR RESIDENCY TRAINING

OBJECTIVES OF SENIOR ORLHNS/OTOLOGY

1. Refinement of skills in clinical examination, consultation, radiological imaging and pathology.
2. Teach junior in examination patient care, and surgery.
3. Management skill.
4. Improve surgical skills and operative experience.

SKILLS EXPECTED TO BE ACQUIRED

EAR

- | | | |
|--|----|----|
| 1. Removal of meatal masses | | P5 |
| 2. Surgery of meatal atresia | A5 | P5 |
| 3. Partial reconstruction of the pinna | | P5 |
| 4. Surgical approaches to the middle ear and mastoid | A5 | P5 |
| 5. Cortical mastoidectomy | A5 | P5 |

6. Radial mastoidectomy	A5	P5
7. Myringoplasty (P) and Ossiculoplasty	A5	P5
8. Stapedectomy	A5	P5
9. Surgery of Glomus Tumours of the ear	A5	
10. Surgery of the facial nerve	A5	

NOSE

1. Turbinectomy		P5
2. Lateral rhinotomy	A5	P5
3. Surgery of Tumours of the external Nose and Nasal Cavity	A5	P5
4. Caldwell-Luc and allied operation	A5	P5
5. Surgery of blow-out injuries of the orbit	A5	P5
6. Simple and Radical Maxillectomy	A5	P5
7. Surgery of the pterygopalatine fossa	A5	
8. Oro-antral fistula surgery		P5
9. Trephination of the frontal sinus	A5	P5
10. External operations of frontal ethmoidal and sphenoidal sinuses	A5	P5
11. Nasoendoscopy	A5	P20
12. Nasoendoscopy/Biopsy	A5	P10
13. Endoscopic sinus surgery		P10

NASOPHARYNX

1. Adenoidectomy		P5
2. Transpalatal approach to the post nasal space	A5	P5
3. Surgery of angiofibroma of nasopharynx	A5	P5

OROPHARYNX

1. Tonsillectomy by dissection		P5
2. Division of a long styloid process in the tonsillar fossa		P5
3. Division of the glossopharyngeal nerve in the Tonsillar fossa		P5
4. Surgery of Peritonsillar abscess		P5
5. Surgical treatment of parapharyngeal		

and retropharyngeal abscess		P5
6. Tumours of oropharynx	A5	P5

LARYNGO PHARYNX AND OESOPHAGUS

1. Oesophagoscopy		P5
2. Pharyngotomy and partial pharyngectomy	A5	P5
3. Intubation of the Oesophagus		P5
4. Diathermy Treatment of laryngeal pouch	A5	P5
5. Cricopharyngeal sphincterotomy	A5	P5
6. Excision of pharyngeal pouch	A5	P5
7. Pharyngolaryngectomy	A5	
8. Fibreoptic Laryngoscopy		P20

LARYNX AND TRACHEBRONCHIAL TREE

1. Laryngoscopy	A5	P5
2. Bronchoscopy	A5	P5
3. Tracheostomy	A5	P5
4. Surgery of laryngotracheal stenosis	A5	
5. Surgery of laryngocoele	A5	P5
6. Surgery of laryngeal paralysis	A5	P5
7. Radical neck dissection	A5	P5
8. Laryngofissure	A5	P5
9. Laryngectomy	A5	P5

OPERATION OF HEAD AND NECK

1. Ligation of the external carotid artery	A5	P5
2. Surgical treatment of branchial cyst	A5	P5
3. Partial parotidectomy	A5	P5
4. Total parotidectomy	A5	P5
5. Removal of the submandibular salivary gland	A5	P5
6. Removal of calculi of salivary ducts	A5	P5
7. Surgery of cancer of the oral cavity	A5	P5
8. Neck dissections operation	A5	P5
9. Head/neck flap reconstruct procedures	A5	P5

PERFORMANCE GRADE	DESCRIPTION
A	Adequate knowledge; Performs skill without supervision; can reproduce skill on request; five to six points on Affective domain.
B	Adequate knowledge; performs skill with minimal supervision; reproduces skill with minimal guidance; four to five points on Affective domain.
C	Adequate knowledge; performs skill with supervision; barely reproduces skill; 3-4 points on Affective domain.
D	Inadequate knowledge; performs skill with supervision; Unable to reproduce skill; 2 - 3 points on Affective domain.
E	Gross inadequate knowledge; unable to perform task; unable to reproduce skill; 1-2 points on Affective domain.

COMPETENCE BASED GRADING OF PERFORMANCE GRADES OF PERFORMANCE SCORES

AFFECTIVE DOMAINS FOR ASSESSING CANDIDATES DURING TRAINING:

1. Attendance to work
2. Punctuality
3. Prompt delivery of assignments
4. Group work and interaction
5. Obeying instructions
6. Respect for patient care

ORL 935 Otolology Super Specialty (288 Credit Units)

Outlines:

1. Goals of Otolology Fellowship
2. Fellowship description
3. Fellow duties
4. Organization of the Teaching service
5. Fellowship duration / Eligibility
6. Departmental Accreditation for Otolology Fellowship
7. Fellowship Syllabus

Goals of the Otolology Fellowship

Mastering middle ear reconstructive surgery is the ultimate goal of the Otolology fellowship, as there is increasing trend towards improving quality of life, with the improvement of hearing in addition to disease eradication. The goals of the otology fellowship are

1. To become familiar with the evaluation and treatment of patients with acute and chronic disorders of the ear and diseases of the skull base
2. To become familiar with the evaluation and diagnosis of hearing loss and assess candidacy for implantable hearing devices
3. To develop otological skills in the laboratory and theater settings.

Fellowship description

Otolology fellowship is a unique fellowship program for training candidates in specialized middle ear surgery. Candidates under this fellowship are to be trained in identifying and surgically treating middle ear conditions. This training is conducted in outpatient clinics as well as operating theater and the wards under the tutelage of the institutional program mentor.

Fellows Duties

The "Fellow" will receive hands-on training in all areas related to the clinical, surgical and academic aspects of Otolology, to be achieved by the following job description:

1. Surgical exposures
 - a. Temporal bone dissection.
 - b. Level 1: Ventilation tube insertion, removal of foreign bodies in the ear, myringoplasty, canalplasty and cortical mastoidectomy.
 - c. Level 11: Tympanoplasty, modified radical mastoidectomy and mastoid obliteration.
2. Clinical exposure and responsibility.
 - a. Attend specialty clinics (Vertigo clinic, Hearing loss clinic, Allergy clinics).
 - b. Attend consultant clinics
3. Teaching Responsibility
 - a. Lecture undergraduate students.
 - b. Lecture house officers.
 - c. Lecture residents on rotation from other departments.
 - d. Presentation at grand rounds/hospital rounds.
 - e. Assist in teaching temporal bone dissection course for residents.
 - f. Assist in running TBD course (CME)
4. Research responsibility:
 - a. 2 clinical projects in area of otology
 - b. 2 clinical projects in area of general otolaryngology (equivalent to dissertation in each of the colleges)
 - c. Minimum of 2 presentations at national or regional events.
 - d. 1 day per week dedicated research time

Organization of the Teaching service

Fellows will be mentored by faculty otologists. They will also be exposed to audiology team, including cochlear implant audiologists.

Fellowship Duration and Eligibility

The Otology fellowship shall be for a minimum period of 24 months. Eligible candidate must be an associate fellow of the National Postgraduate Medical College of Nigeria, who might have passed

the part 1 examination of the same college, and might have spent not less than 12 months as senior registrar in an accredited center for training in Otorhinolaryngology-Head and Neck Surgery.

Departmental Accreditation for Otology Fellowship

The criteria for accrediting a department for otology fellowship training should be subsumed under general accreditation requirement and shall include:

1. Routine external ear and middle ear surgery
2. Presence of experienced otologist(s) or otolaryngologist with otology interest
3. Basic ear surgery set
4. Mastoidectomy set
5. Presence of operating microscope - at least 2 - with one situated in the Outpatient and one in the main theater
6. Presence of well-equipped audiology center, with a minimum facility consisting of Pure tone audiometer, Tympanometer, Otoacoustic emission machine, Auditory brainstem response (ABR) audiometer.
7. A functional and fully equipped temporal bone dissection laboratory (must have operating microscope, alternatively an endoscope is accepted).
8. Supporting departments include Oncology, (interventional) Radiology and Laboratory sciences (Histopathology, Haematology, Microbiology, and Clinical Chemistry).

Syllabus for Otology Fellowship

Topics for discussion during the Otology Fellowship period shall include:

Basic Sciences:

- Anatomy and Mechanism of Hearing
- Physiology of Auditory & Vestibular System
- Surgical Anatomy of Skull Base
- Pathophysiology of Ear
- Middle ear Biomechanics

- Bio-films in relation to Ear Implants
- Osseo-integration Principle
- Recent Advances & Future Directions in Implant Otology
- Temporal Bone Imaging
- Medical Negligence in Otorhinolaryngology-Head and Neck Surgery.
- History and Different Materials Used for Ossiculoplasty in the Past and Present
- Etiology and Factors affecting the Result of Ossiculoplasty
- Radiological Correlation with Anatomy.

OTOLOGY:

- External Ear Cholesteatoma
- Ear Trauma.
- Chronic Suppurative Otitis Media.
- Management of Chronic Suppurative Otitis Media.
- Reconstruction of the Ear.
- Complication of Suppurative Otitis Media
- Sudden & Fluctuant Sensorineural Hearing Loss.
- Epithelial Tumours of External Auditory Meatus.
- Glomus & Other Tumours of the Ear
- Disorders of Facial Nerve
- Implantable Hearing Devices
- Reconstruction:
 - 1. Basic Situation I: Malleus with Stapes
 - 2. Basic Situation IIA: Malleus with mobile footplate
 - 3. Basic Situation IIB: Malleus with fixed footplate
 - 4. Basic Situation III: Only Stapes
 - Tympanosclerosis
 - Revision Ossiculoplasty
 - Endoscopic Ossiculoplasty

AUDIOLOGY:

- Basic and Advanced Audiological testing – overview
- Etiology of Audiological Disorders
- Conductive Hearing Loss: Evaluation and Management

- Recent trends in the Hearing technology – Bone conduction hearing aids.

TEMPORAL DISSECTIONS

Supervised microsurgical dissection on dry & wet temporal bone specimens, in the temporal bone lab.

Surgical/Clinical Training

Aside from the Ear Surgeries already stated in previous postings; outlined below is a list of some of otology conditions that are important for our fellows to be exposed to during their training. They are expected to Observe 5 cases, Assist 5 cases and Perform 5 cases of each:

- Staged Tympanoplasty
- Mastoidectomy
- Tympanomastoidectomy
- **Ossicular Reconstruction with passive middle ear implants**
- Stapedectomy
- External ear cholesteatoma surgery
- Facial Nerve decompression

**COMPETENCE BASED GRADING OF PERFORMANCE
GRADES OF PERFORMANCE SCORES**

PERFORMANCE GRADE	DESCRIPTION
A	Adequate knowledge; Performs skill without supervision; can reproduce skill on request; five to six points on Affective domain.
B	Adequate knowledge; performs skill with minimal supervision; reproduces skill with minimal guidance; four to five points on Affective domain.
C	Adequate knowledge; performs skill with supervision; barely reproduces skill; 3-4 points on Affective domain.
D	Inadequate knowledge; performs skill with supervision; Unable to reproduce skill; 2 - 3 points on Affective domain.
E	Gross inadequate knowledge; unable to perform task; unable to reproduce skill; 1-2 points on Affective domain.

**AFFECTIVE DOMAINS FOR ASSESSING CANDIDATES
DURING TRAINING:**

1. Attendance to work
2. Punctuality
3. Prompt delivery of assignments
4. Group work and interaction
5. Obeying instructions
6. Respect for patient care

GENERAL TRAINING FOR SENIOR RESIDENCY

OBJECTIVES

Management course

Resident must endeavour to attend Management Course before sitting for Part 2 Fellowship examination.

Education course

Head and neck surgical dissection course is a **recommended** course for all residents **before** Part 2 Fellowship examination.

Research Training/Methodology

National postgraduate Medical College organizes a research methodology course and it is mandatory that Residents must attend before sitting for Part 2 Fellowship examination. Resident must key-in into a research work in collaboration with his/her consultant.

Conferences

Residents are to attend local and International Conferences especially as related to ORL and Surgery.

The faculty specifically identifies **ORLSON Conference**, and it is a **mandatory** that Residents should attend.

Residents must present at least **one scientific paper** at the conference before sitting for Part 2 Fellowship examination.

REFERENCE

1. J.M. Nedzelki, Derek Birt. Assessment of operative skills - Department of Otolaryngology, University of Toronto, Departmental Handbook. 1995, 144-145.
2. Harmonized Curriculum for Otorhinolaryngology-Head and Neck Surgery in the Anglophone West African Sub region.

APPENDIX I

CRITERIA FOR ACCREDITATION OF INSTITUTIONS FOR TRAINING OF ORLHNS RESIDENTS (2020)

1. QUALIFIED AND EXPERIENCED PERSONNEL (15 points)

S/N	Descriptions and minimum number of staff	Score Guideline	Points scored
1.	ORLHNS Consultant: At least 4 consultants of which minimum of one (1) must not be less than 5 years post Fellowship of the College.	Two (2) points per consultant (10 points max), (2 part time consultants are equivalent to 1 full time consultant)	
2.	Audiologist/Audiometrician – 2;	1 point each (2points max)	
3.	Speech pathologist/therapist – 1	1 point	
4.	ENT trained Nurses deployed in outpatient and wards	1 point each (2points max)	

2. APPROPRIATE INFRASTRUCTURE (10 points)

A. Basic: Water, Light, Sewage etc (Maximum 1 point)

B. Core Departments Present - Outpatient Clinic (Maximum of 15 points)

S/N	Description and minimum number	Score Guideline	Points scored
1	Consulting stations minimum of 6 ENT consoles with patient chair and Doctors chair (6) Basic ENT Clinic based instruments a. Jobson home probes (25), b. Suction nozzles (25), c. Tilleys dressing forceps (25), d. Crocodile forceps (25), e. Cawthorne aural forceps (25), f. Nasal specula (50), g. Aural specula (15), h. Tongue depressors (50), i. Tuning forks (20), j. Laryngeal mirrors (50), k. Otoscopes (10), l. Head-mirrors (10), (suction machines (6) optional if consoles requirements are met)	1/2 point per station 1 point each ½ point per set of instrument (maximum 5 points)	
2	Treatment Room with accessories	1 point	

C. Support Departments Present (Maximum 4 points)

The training Institution must have full accreditation in General Surgery by the Faculty of Surgery of the National Postgraduate Medical College of Nigeria or a Sister College. (1 point)

This will include the hospital having the following surgical units for the postings of Otorhinolaryngology Head and Neck Surgery (ORLHNS) Residents:

Cardiothoracic (1/2), Plastic and Reconstructive Surgery (or Maxillofacial) (1/2),

Neurosurgery (1/2), Ophthalmology (1/2) (2 points)

Other departments in the hospital with adequate facilities especially with regard to ORL patient care: Anaesthesiology, Radiology, Pathology departments, Blood banking; Pharmacy (**1point**)

Comment: Multiply total score (/20) in section 2 by 0.5 to get score /10.

3. EQUIPMENT (20 points)

Core Equipment (E. N. T. Laboratory and other Facilities) - (Maximum 20 points)

S/N	Description and minimum number	Score guidelines	Points scored
1	Audiology Lab; Pure tone audiometer (1), Tympanometer(1), OAE machine(1), ABR machine(1) Audio booth or sound proof room(1)	7 points	
2	Vestibular Lab: ENG machine (1) Caloric machine (1)	3 points	
3	Temporal bone dissection laboratory with facilities – drills, burrs, bone holder, microscope/loupe); Ear instruments accessories	3 points	
4	Endoscopy/Otomicroscopy room for out-patient procedures telescopes and flexible laryngoscope CCU/Camera/Monitor, Microscope	3 points	
5	Speech Lab: Stroboscopy machine and accessories	1 point	
6	Rhinometric Lab: Rhinometer and accessories	1 point	
7	Sleep Lab: Polymosonogragh and other accessories	1 point	
8	Seminar room with audio-visual aid, multimedia facilities	1 point	

*OAE---Oto acoustic Emission Machine

* ABR-Auditory Brain Response Audiometer

*ENG – Electronystagmography

* CCU – Camera Circuit Unit

4. WELL STRUCTURED TRAINING PROGRAMME(15 Points)

A. Administration (Maximum of 3 points)

S/N	Description	Score Guideline	Points scored
1.	The Department should be an autonomous ORLHNS department of a hospital and/or College of Medicine, as appropriate. It may be a stand -alone hospital/institution.	1 point	
2.	It shall be headed by a Fellow of the College.	1 point	
3.	There shall be adequate funding of the Departmental activities especially its training programme.	1 point	

B. In-Patient Wards: (Maximum of 9 points)

There shall be Ward dedicated to ORL in patients and has a minimum of 20 bed spaces.

In-patient register of the past three years to be sighted.

S/N	Description and minimum number	Score Guidelines	Points scored
1	Bed space of 20, Males -7, Females 7 and Children 6	1 point for each 5 beds dedicated ward 3 points non dedicated ward 1point	
2	Ward treatment room	1 point	
3	Call room space for Residents	1 point	

C. Lectures/Tutorials (3 points)

Departments to provide portfolio of Departmental grand Rounds, Seminars, clinical conferences, clinic-pathological conferences, joint meetings with other departments, revision courses in the department, etc.

S/N	Description and minimum number	Score Guidelines	Points scored
1	Departmental Seminars/ Ground Rounds	1 point	
2	Training Programmes of the Department in the past three years	1 point	
3	Clinico-Radiological/ Clinico-Pathological Conferences	1 point	

5. OPPORTUNITIES/EVIDENCE OF SKILL ACQUISITION (15 Points)

Operating Theatre: (Maximum of 15 points)

Operation Register in the past three (3) years shall be provided for inspection. The instruments will be inspected.

S/N	Descriptions and minimum number	Score guidelines	Points scored
1	ORL theatre room space and sessions Minimum of two operating sessions	1 point per op. session per week max 2points	
2	Sets of instruments for the common ORL operations a. Tonsillectomy/Adenoidectomy set b. Nasal tray, Antrostomy tray and Caldwell luc tray c. Middle ear set and Mastoid set d. Basic surgery (Minor and Major sets) e. Laryngoscope (Adult and Paediatric) f. Oesophagoscope (Adult and Paediatric) g. Bronchoscope (Adult and Paediatric) h. Endoscope forceps and suction nozzles	1 points per set of instruments max 8points	
3	Operating microscope with teaching arm or camera; -	2 points	
4	Endoscopic Surgery instrument sets; telescopes CCU/Camera/Monitor	2 points	
5	Intensive Care Unit, well-equipped	1 point	
	Procedure register, Theatre list and Log book should be inspected		

6. ACCESS TO NEW INFORMATION /KNOWLEDGE (15 Points)

A. Learning Resources of the Department (Maximum of 5 points)

S/N	Description and minimum number	Score Guidelines	Points scored
1	Departmental Library with ENT reference books and current journals	1 point	
2	Institution's Library, if Residents have easy access	1 point	
3	ICT facilities with Internet access	1 point	
4	Museum for pathology pots, etc,	1 point	
5	NPMCN Journal	1 point	

*ICT – Information and Communication Technology

B. Departmental Hands -On Learning Resource (Maximum 10 points)

S/N	Description and minimum number	Score Guidelines	Points scored
1	Departmental Temporal Bone Cadaver Dissection Activities by Residents	5 points	
2	FESS Cadaver Dissection Activities by Residents	5 points	

*FESS – Functional Endoscopic Sinus Surgery

7. REGULAR FEED BACK AND EVALUATION (10 Points)

Patient Work - load - (Maximum of 10 marks)

Patient load should reflect variety in number and types of ORL clinical conditions handled per annum in the training institution vis a vis the number of Residents in the training Department.

New Out-patient load/ annum

Points Scored

□ 500 - ½ point

501	-	1000	1 point
1001	-	2000	2 points
2001	-	above	3 points

In-patient load (Total admissions)

< 50	-		½ point
51	-	100	1 point
101	-	150	2 points
151	-	above	3 points

Patients operated upon:

Up to 50 patients/ annum	-	1 point
Equal to and more than 51 patients	-	2 points
Variety of operations - Poor	-	½ point
Average	-	1 point
Good	-	2 points

8. Accreditation status to Recommend:

Accreditation status will be determined by the total scores within the following guidelines:

- 8a. The Department shall meet the following minimum spread of the scores from various segments of section

Section	Minimum Score	Actual score
1. Qualified and Experienced Personnel	7.5	
2. Appropriate Infrastructure	5	
3. Equipment	10	
4. Training Programme	7.5	
5. Skill Acquisition	7.5	
6. Access to new information	7.5	
7. Feed-back and Evaluation	5	
Total	50	

If the criteria set out in 8a are fulfilled, the Department becomes eligible to be considered further for accreditation as stated hereunder:

Recommendation:

8b. FULL ACCREDITATION:

- (i) Score of 75 points plus
- (ii) Minimum of 1 Consultant Fellow in ORLHNS of the College of at least 5 years post qualification.
- (iii) Full accreditation for General Surgery department.
- (iv) Criteria set out in 8a above

Then full accreditation for 5 years

PARTIAL ACCREDITATION:

- (i) Score of 50 – 74 points
- (ii) Minimum of 1 Consultant Fellow of the College in ORLHNS of at least 5 years post qualification
- (iii) Criteria set out in 8a above

Then partial accreditation for 2 years

DENIAL OF ACCREDITATION

- (i) Score < 50 points
- (ii) No Fellow of NPMCEN
- (iii) Failure to meet criteria set out in 8a above

Then denial of accreditation.

Trainers/Trainee Ratio

The number of Residents to be approved for the junior and senior stages will be determined by taking into cognisance the number and experience of personnel on ground, quality and variety of infrastructure in the Department, inherent strengths and comparative advantages of the training programme mounted in the department, the track record of the Department and the patient work load.

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

Number of Residents Recommended for training:

Junior:

Senior:

.....

Full Names/Signature

Full Names/Signature

Chairman/Team Leader

Team Member

.....

Full Names/ Signature

Full Names/ Signature

Panel Member/ Secretary

Panel Member

**CRITERIA FOR ACCREDITATION FOR STAND ALONE
TRAINING INSTITUTION OR E.N.T HOSPITAL FOR
TRAINING OF OTORHINOLARYNGOLOGY RESIDENTS
(2015)**

SECTION A: Surgical Units of the Institution: (Maximum of [8] points)

The stand- alone training Institution must have affiliation to a surgical department of another hospital with memorandum of understanding regarding rotations and training of O.R.L residents (a copy of the Legal document must be presented to the accreditors). The General Surgical department of the hospital must have full accreditation by the Faculty of Surgery of the National Postgraduate Medical College of Nigeria. (4 points)

This will include the hospital having the following surgical units for the postings of Otorhinolaryngology (ORL) Residents:

CardioThoracic (1), Plastic and Reconstructive Surgery (1) or Maxillofacial (1), Neurosurgery (1), Ophthalmology (1), (4 points)

SECTION B: Other Departments

The stand -alone hospital or training Institution must have the following departments within the hospital. These departments in the hospital must have adequate facilities especially with regard to training and ORL patient care: **(Maximum [7] points)**

	Description	Score guidelines	Points scored
1	Anaesthesiology department	(1/2 point)	
	Appropriate & adequate facilities	(1/2 point)	
2	Radiology department	(1/2 point)	
	Appropriate & adequate facilities (Digital plain X-ray machine, Ultra Sound Scan machine, CT Scan, MRI others.)	(1/2 point)	
3	Radiotherapy department	(1/2 point)	
	Appropriate & adequate facilities (cobalt or linear accelerator machine)	(1/2point)	
4	Pathology departments	(1/2 point)	
	Appropriate & adequate facilities	(1/2 point)	
5	Heamatology and blood banking department	(1/2 point)	
	Appropriate & adequate facilities	(1/2 point)	
6	Pharmacy department	(1/2 point)	
	Facilities for quality control	(1/2 point)	
7.	Others	(1point)	

SECTION C: Otorhinolaryngology: (Departments, Administration/Staff)

1. Departments (Maximum of [20] points)

- a. The stand-alone hospital or training Institution shall be headed by a Fellow of the NPMCN or equivalent College. (1 point)
- b. The stand-alone hospital or training Institution must have at least 3 of the following sub- specialties under **Otorhinolaryngology as functioning units namely: 1. Otology 2. Rhinology 3. Laryngology 4. Head Neck Surgery 5. Paediatric O.R.L 6. Audiological medicine 7. Phoniatics (7 points)**
- c. There shall be adequate funding of the various departmental activities especially as it concerns training programme. (1 point)

Administration/Staff

S/N	Description and minimum number of staff	Score Guideline	Points scored
1.	Each sub specialties must have a minimum of two ORL Consultants: Minimum of 14 consultants in the hospital of which at least 8 of them must be not less than 5 years post Fellowship of the College;	(1/2) point per consultant to up maximum (10 points); (3 part time consultants are equivalent to 1 full time consultant)	
	1. Otology (2 consultants)		
	2. Rhinology (2 consultants)		
	3. Laryngology (2 consultants)		
	4. Head Neck Surgery (2 consultants)		
	5. Paediatric O.R.L (2 consultants)		
	6. Audiological medicine (2 consultants)		
	7. Phoniatics (2 consultants)		
	8. Others (2 consultants)		
2.	Audiologist (BSc, AuD) –minimum of 2; Audiologist Technician minimum of 2	(1/2 point per staff) (3 points max)	
3.	Speech pathologist/therapist – minimum of 2	(1/2 point per staff) (1-point max)	
4.	ENT trained Nurses deployed in outpatient, and wards	(1/2 point per staff) (6 points max)	

SECTION D

1. Non-otorhinolaryngology (Departments,
2. Administration/Staff) **(Maximum of [8] points)**

Departments

The non-otorhinolaryngology departments of stand-alone hospital or training Institution must have at least a minimum of two consultants of which one must be a Fellow of the College.

S/N	Description and minimum number of staff	Score Guideline	Points scored
1.		(1/2 point per consultant) (3 part time consultants are equivalent to 1 full time consultant)	
	1. Anaesthesiology department (2 consultants)	(1-point max)	
	2. Radiology department (2 consultants)	(1 point max)	
	Pathology		
	3. (Morbid anatomy and mortuary department (2 consultants)	(1 point max)	
	4. Micro biology department (2 consultants)	(1 point max)	
	5. Biochemistry department (2 consultants)	(1 point max)	
	6. Haematology and blood banking department (2 consultants)	(1 point max)	
	7. Radiotherapy department (2 consultants)	(1 point max)	
	8. Others	(1 point max)	

SECTION E

Medical Consultant Staffs (Visiting/Honorary) (Maximum of [7] points)

The stand- alone hospital or training Institution must appoint honorary visiting consultants in the following specialities to assist in collaborative patient care and training with minimum basic facilities to work with. (1/4 point per consultant and ½ point for minimum basic facilities).

	Description	Score guidelines	Points scored
1	Cardiothoracic surgery	(1/4 point)	
	Minimum basic facilities	(1/2 point)	
2	General surgery	(1/4 point)	
	Minimum basic facilities	(1/2 point)	
3.	Neuro surgery	(1/4 point)	
	Minimum basic facilities	(1/2 point)	
4	Ophthalmology	(1/4 point)	
	Minimum basic facilities	(1/2 point)	
5	Paediatrics	(1/4 point)	
	Minimum basic facilities	(1/2 point)	
6	Internal medicine	(1/4 point)	
	Minimum basic facilities	(½ point)	
7.	Others	(1/2 point)	

SECTION F. Outpatient Clinic (Maximum of [10] points)

s/n	Description and minimum number	Score Guideline	Points scored
1	<p>Consulting stations minimum of 20 of which 14 must be ENT based.</p> <p>Minimum of (14) ENT consoles with patient chair and Doctors' chair.</p> <p>Basic ENT Clinic based instruments a. Jobson horne probes (50), b. Suction nozzles(50), c. Tilleys dressing forceps(50), d. Crocodile forceps(50), e. Cawthorne™ aural forceps(50), f. Nasal specula(50), g. Aural specula(50), h. Tongue depressors(50), i. Tuning forks(20), j. Laryngeal mirrors(20), k. Otoscopes(15), l. Head-mirrors(20), (suction machines(14) optional if consoles requirements are met)</p> <p>Other basic medical and surgical clinic furniture and accessories for all the rooms.</p>	<p>(1/4 point) per station</p> <p>(¼ point) each</p> <p>(¼ point) per set of instrument</p>	
2	Treatment Room with accessories (6 rooms)	(point)	

SECTION G. E. N. T Laboratories and other Facilities - (Maximum [12] points)

Hospital to provide portfolio of Departmental or hospital grand Rounds, Seminars, clinical conferences, clinico-pathological conferences, joint meetings with other departments, revision courses in the department. etc (1/4 point each)

	Description and minimum number	Score guidelines	Points scored
1	Audiology Lab; minimum of Pure tone audiometer (2), Tympanometer (2), OAE machine (2), ABR machine (2) Audio booth or sound proof room (2)	(2 points max)	
2	Vestibular Lab: ENG machine (2) Caloric machine (2) Rotary chair (2) Vemp machine (2)	(1-point max)	
3	Temporal bone dissection laboratory with facilities – drills, burrs, bone holder, microscope/loupe; Ear instruments accessories	(1point max)	
4	Endoscopy room for out-patient procedures telescopes and flexible laryngoscope adult & paediatric (2) CCU/Camera/Monitor	(1 point max)	
5	Otomicroscopy room; Microscope with teaching arm and video camera minimum of (4)	(1point max)	
6	Speech Lab: Stroboscopy machine and accessories	(1point max)	
7	Rhinometric Lab: Rhinometer and accessories	(1point max)	
8	Sleep Lab: Polymosonograph and other accessories	(1point max)	
9	Seminar room with audiovisual aid, multimedia facilities	(1point max)	
10	Training Programmes of the hospital or various O.R.L departments in the past three years	(1 point max)	

SECTION H. Operating Theatre: (Maximum of [8] points)

Operation Register in the past three years shall be provided for inspection. The instruments will be inspected.

S/N	Description and minimum number	Score guidelines	Points scored
1	ORL theatre room space minimum of (4) theatre rooms and daily operating sessions	(1/2 point per op. session per week) (max 1 point)	
2	Sets of instruments for the common ORL operations a. Tonsillectomy/Adenoidectomy set (6sets) b. Nasal tray, Antrostomy tray & Caldwell luc tray (6sets) c. Middle ear set and Mastoid set (6sets) d. Basic surgery (Minor and Major sets, (6sets) e. Laryngoscope (Adult and Peadiatric (6sets) f. Oesophagoscope (Adult and Peadiatric (6sets) g. Bronchoscope (Adult and Peadiatric (6 sets) h. Endoscope forceps and suction nozzles (6 sets)	(1/4 point per set of instruments) (max 2 points)	
3	Operating microscope with teaching arm or camera; (2)	(½ point each) (2 points max)	
4	Endoscopic Surgery instrument sets; telescopes CCU/Camera/Monitor (2sets)	(1/2 point per set) (1 point max)	
5	Intensive Care Unit, well-equipped minimum of 5 beds with ventilators	(1 point max)	
6	Others. Basic Major and minor surgical sets.		

SECTION I. In-patient Wards: (Maximum of [6] points)

S/N	Description and minimum number	Score Guidelines	Points scored
1	Bed space of 250, Males -100, Females 100 & and Children 50	(1/2 point for each dedicated ward and ¼ point for non-dedicated ward) (1/2 point for every 50 beds) (4 points max)	
2	Ward treatment room	(1/2 point max)	
3	Call room space for Residents	(1 point max)	
4	Others	(1/2 point max)	

SECTION J. Learning Resources of the Department (Maximum of [4] points)

S/N	Description and minimum number	Score Guidelines	Points scored
1	Departmental Library with ENT reference books and current journals	(2 points max)	
2	Institution's Library, if Residents have easy access	(1 point max)	
3	ICT facilities with Internet access	(1/2 point max)	
4	Museum for pathology pots, etc,	(1/2 point max)	
5	Others		

SECTION K. Patient Work - load - (Maximum of [10]marks)

Patient load should reflect variety in number and types of ORL clinical conditions handled per annum in the training institution vis a vis the number of Residents in the training Department.

New Out-patient load/ annum

Points Scored

- 1000 1 point
- 1001 - 2000 2 points
- 2001 - 3000 3 points
- > 3000 4 points

In-patient load (Total admissions)

- < 500 - 1 point
- 501 - 1000 2 points
- 1001 - 2000 3 points
- 2001 - above 4 points

Patients operated upon:

- Up to 500 patients/ annum - 1 point
- Equal to and more than 500 patients - 2 points

SECTION L. Accreditation status to Recommend:

Accreditation status will be determined by the total scores within the following guidelines:

8a. The Department should be able to score a minimum of [55] points from various sections.

Section	Minimum Score	Actual score
A. Surgical Units	4	
B. Other Departments	4	
C. ORL Administration/Staffing	10	
D. Non-ORL Administration/Staffing	4	
E. Medical consultant staff	3	
F. Outpatients	5	
G. E N T Laboratory	6	
H. Theatre	4	
I. In-patients	3	
J. Learning resources	2	
K. Patient work load	5	
Total	50	

If the criteria set out in 8a are fulfilled, the Department becomes eligible to be considered further for accreditation as stated hereunder:

Recommendation:

8b. Summary:

70 points plus: full accreditation for 5years ;

50 - 69 points: partial accreditation for 2years ,

<50 points: denial of accreditation

The number of Residents to be approved for the junior and senior stages will be determined by taking into cognisance the number and experience of personnel on ground, quality and variety of infrastructure in the Department, inherent strengths and comparative advantages of the training programme mounted in the department, the track record of the Department and the patient work load.

Number of Residents Recommended for training:

Junior :

Senior:

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