WEST AFRICAN COLLEGE OF SURGEONS

FACULTY OF DENTAL SURGERY

CURRICULUM FOR THE MEMBERSHIP AND FELLOWSHIP PROGRAMME

OCTOBER, 2016
CONTENTS

RULES AND REGULATIONS
OF
THE FACULTY OF DENTAL SURGERY,
WEST AFRICAN COLLEGE OF SURGEONS
(Obtainable from the College web site)

SECTIONS/PHASES OF THE PROGRAMME
IN DENTAL SURGERY

SECTION I:  (Phase I) - PRIMARY
  • Objective
  • Programme Contents
  • Format of Examination

SECTION II:  (Phase 2) – MEMBERSHIP (MWACS)
  • Objectives
  • Programme Contents
  • Format of Examination

SECTION III:  (Phase 3) - FELLOWSHIP (FWACS)
  • Objectives
  • Programme Contents
  • Format of Examination
PHASE 1: PRIMARY
(Post House Officer and Youth Corp)

OBJECTIVES:
- To broaden the candidate’s knowledge base in Basic Medical and Dental Sciences above the undergraduate level.
- To determine his/her preparedness for Postgraduate Residency Training.

CONTENTS
Candidates for the Primary Fellowship examinations are expected to have adequate knowledge of the Basic Medical and Dental Sciences. These areas include:

1. GENERAL PHYSIOLOGY
   - Body homeostasis water, electrolyte, acid-base, metabolism and regulation.
   - Endocrine, structure and function of the nervous system.
   - Principles of human nutrition
   - Respiratory system, oxygen, energy supply, transportation and utilization.
   - Cardiovascular system, haemodynamics, structure and function of blood.
   - Structure and function of the genito-urinary system.
   - Structure and function of the gastro-intestinal system.

2. GENERAL ANATOMY INCLUDING HISTOLOGY AND EMBRYOLOGY WITH SPECIAL EMPHASIS ON THE HEAD AND NECK REGION
   - Human anatomy- Applied and surgical basis.
• Embryology- including congenital malformations of oro-facial region, gastrointestinal tract, cardiovascular, respiratory, musculo-skeletal, genito-urinary and central nervous systems.
• Osteology and musculo-skeletal system.

3. GENERAL PATHOLOGY INCLUDING MICROBIOLOGY, BACTERIOLOGY AND VIROLOGY IN RELATION TO DENTISTRY

   Cellular and histopathology
   • Microbiology
   • Virology
   • Chemical pathology
   • Haematology
   • Immunology
   • Oncology

4. PHARMACOLOGY
   • The basic principles of pharmacology of drugs used in anaesthesia & analgesia
   • The basic principles of pharmacology of antimicrobials and chemotherapeutics
   • Drugs acting on the cardiovascular, genito-urinary, respiratory and gastro-intestinal systems.
   • Cancer chemotherapeutics and immuno-suppressive drugs.

5. ORAL BIOLOGY
   • Oral histology and dental anatomy, and cytology
   • Oral Physiology-including structure and function of saliva
6. **PHYSIOLOGICAL CHEMISTRY**

- Carbohydrates, Lipids, Amino Acids, Proteins.
- Porphyrins and Bile pigments
- Protein synthesis and enzymes
- Metabolism of Carbohydrates, Lipids, Proteins, and Amino acids
- Purines and Pyrimidines

**FORMAT OF THE PRIMARY EXAMINATION**

The Primary examination shall consist of:

*Two hour multiple-choice question paper which covers the following subjects: General Physiology, General Anatomy including Histology and Embryology with special emphasis on the head and neck region, General Pathology including Microbiology, Bacteriology and Virology in relation to Dentistry, Pharmacology, Oral Biology and Physiological Chemistry.*

*In order to pass the primary examination, the candidate must obtain at least 50% of the overall score in the multiple choice question paper.*
PHASE 2: MEMBERSHIP (MWACS)

There shall be a Residency program in Dental Surgery to prepare candidates for the Membership Examination. The Residency program shall be undertaken in hospitals recognized (accredited) by the Faculty and the College. This part of the programme is expected to commence at an accredited institution after the trainee must have successfully passed the Primary Examinations in Basic Medical and Dental Sciences, or must have been exempted from that examination by the College.

OBJECTIVES:

- To train the Resident to acquire relevant competencies for routine management of all common oral health conditions at a level higher than that of the post house officer and youth corps graduate experience.
- To train candidates that will provide middle level manpower in the dental specialties.

The resident should be able to make use of the library and information technology in clinical presentations, seminars, etc., and provide primary oral health care at various level of the health delivery system.

Throughout the membership training program, the resident is expected to be exposed to, and actively participate in seminars, group discussions, lectures, and clinico-pathological conferences and research.

The membership examination may be taken any time after completion of the prescribed of 36 months rotation in the specified units/departments.

The trainee is expected to acquire a practical and balanced training for 36 months which shall include lectures/seminars, journal article reviews, e-
Learning modules.

The Membership (MWACS), practically, patient-based program will enable candidate to acquire skills and knowledge in a structured and progressive manner and could eventually be progressed to a Speciality Specific Fellowship in Dental Surgery (FWACS).

To be adequately and objectively assessed a LOG BOOK/RECORD OF TRAINING will have to be signed by the trainers in accredited institutions. Success in the examination conducted at the end of this period will result in the award of the title of a Membership in Dental Surgery of the West African College of Surgeons (MWACS).

*PLEASE NOTE THAT THE MEMBERSHIP IN DENTAL SURGERY IS NOT SPECIALTY SPECIFIC.*

LOG BOOK

CANDIDATE DETAILS

SURNAME: ...........................................................................................................

FIRST NAME...............................................................................................................

OTHER NAMES................................................................................................................

WORK ADDRESS:............................................................................................................

TRAINING HOSPITAL / INSTITUTION OFFICIAL STAMP:

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**POSTAL ADDRESS:** ............................................................... 

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**MOBILE TELEPHONE NUMBER:** ...........................................

**RECORD OF DEPARTMENTAL ROTATIONS** 
(36 months of Rotations through all Specified Units / Departments)

<table>
<thead>
<tr>
<th>Department</th>
<th>Duration</th>
<th>Start Date</th>
<th>End Date</th>
<th>Head of Department</th>
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<tr>
<td>Oral and Maxillofacial</td>
<td>4 months</td>
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<tr>
<td>Surgery</td>
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<tr>
<td>Conservation Dentistry</td>
<td>3 1/2 months</td>
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<td>Prosthodontics</td>
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<td>Paediatric Dentistry</td>
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<td>Orthodontics</td>
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<td>Rural Posting)</td>
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<tr>
<td>Medicine</td>
<td>2 months</td>
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<td>Anaesthesia</td>
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Department of the Resident............................................................
There should be a bound chronological booklet for each department in the log book. Status: O = Observed   A = Assisted   P = Performed

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CONFIRMED:
HEAD OF DEPARTMENT SIGNATURE AND DATE:
..........................................................................................................

*The Membership programme consists of thirty months (30 months) of rotation in Dental Specialty disciplines (inclusive of 3 months of rural posting in Community Dentistry) plus six months (6months) in other specified departments in medicine to make up a total of 36 months (3 years).
The Membership Examination may be taken any time after completion of the prescribed 36 months (3 years) rotation through the specified time periods in the following listed departments, as documented and authenticated in the Log book.

1. Oral and Maxillofacial Surgery - 4 months
2. Conservation Dentistry - 3 1/2 months
3. Prosthodontics - 3 1/2 months
4. Orthodontics - 3 months
5. Paediatric Dentistry - 3 months
6. Periodontology - 3 months
7. Oral Medicine - 2 months
8. Oral Pathology - 3 months
9. Community Dentistry (Mandatory Rural Posting) - 3 months
10. Oral Radiology - 2 months
11. Medicine - 2 months
12. Surgery - 2 months
13. Ear, Nose & Throat - 1 month
14. Anaesthesia - 1 month

-36 months

The Resident should be able to make use of the library and information technology in clinical presentations, seminars, etc., and provide primary oral health care at various level of the health delivery system. Throughout the membership training program, the Resident is expected to be exposed to, and actively participate in seminars, group discussions, lectures, and clinico-pathological conferences and research. Evidence of rotation through these specialties must be produced and vetted by the training institution before approval is granted to trainees to take the
examination. Presentation of a log book is therefore mandatory (obtainable form the College Secretariat).

**Dental Specialities: (30 months of Rotation)**

1. Oral and Maxillofacial Surgery
2. Conservation Dentistry
3. Prosthodontics
4. Orthodontics
5. Paediatric Dentistry
6. Periodontology
7. Oral Medicine
8. Oral Pathology
9. Community Dentistry (Mandatory rural posting)
10. Oral Radiology

**Oral & Maxillofacial Surgery (4 months):**

- During the posting, the resident is expected to acquire competence in history-taking, examination, making a list of logical differential diagnosis, evaluation of relevant investigations to arrive at a definitive diagnosis, and formulating a judged definitive treatment plan.
- The procedures that the resident is expected to have been exposed to include:
  - Excision of gingival epulides, small cysts,
  - Impacted third molars and mal-posed teeth,
  - Removal of retained roots,
  - Incision and drainage of abscess,
  - Closure of small oro-antral and oro-facial fistulae,
• Frenectomies,
• Reduction of TMJ dislocation,
• Alveoloplasty,
• Closed reduction and fixation of mandibular fractures, with post operative and follow up care.

MINIMUM REQUIREMENTS FOR ORAL AND MAXILLOFACIAL SURGERY

a. Closed Reduction and Immobilization of mandibular fractures
b. Repair of cleft lip
c. Enucleation of bone cysts
d. Treatment of facial infections
e. Sequestrectomy, Decortication and Saucerisation
f. Preprosthetic surgery
g. Removal of all impacted teeth
h. Tooth transplantation/re-implantation
i. Salivary gland surgery of minor glands
j. Implant

Restorative Dentistry (7 months)

[Conservation Dentistry – 3 1/2 months and Prosthodontics (3 1/2 months]

During this posting, the resident is expected to have a broad clinical exposure to all aspects of Restorative Dentistry. They are expected to perform procedures relevant to achieve the desired level of competence.

They should acquire appropriate competence in

• Simple restorations such as amalgam and composite fillings, and inlays.
• Crowns and Bridges,
• Endodontics
• Removable prostheses,
• Maxillofacial and cleft palate prostheses,
• Occlusion,
• Implants
• Science of dental materials.

MINIMUM REQUIREMENTS FOR RESTORATIVE DENTISTRY

Complex Class 1 amalgam fillings:
Complex class 11 amalgam fillings: (MOD),
Composite restorations:
Composite veneers
Atraumatic restorative treatment (ART)
Endodontics:
Surgical endodontics:
Advance Conservative procedures:
  Fixed Prosthodontic
  Removable Prosthodontic:
  • Partial dentures (Acrylic)
  • Partial denture (Metal based)
  • Full dentures (Acrylic)
  • Full dentures (Metal based)
  • Immediate dentures
  • Oral rehabilitation

Evaluation:
The training institution should assess the trainees in writing of oral and clinical skills prior to the College examinations.

Child Oral Health (6 months)
[Paediatric Dentistry- 3 months and Orthodontics-3 months]

Paediatric Dentistry:
At the end of this posting, the resident is expected to acquire a higher level of competence in Children's dentistry.

- Make a comprehensive treatment plan for any child including the handicapped,
- Recognize the indications for use of local, regional and general anaesthesia.
- Perform following procedure on children:
  - Root canal therapy on anterior teeth,
  - Acid-etch restorations,
  - Acrylic and porcelain jacket crowns,
  - Stainless steel crowns,
  - Pulpotomies and Pulpectomies,
  - Complete management of fractured incisors,
  - Application of fissure sealants, and topical fluoride,
  - Routine exodontia

**Orthodontics:**

- The resident is expected to:
  - Know the principles and practice of orthodontics, and be conversant with basic orthodontic instruments, be aware of the general and specific indications for common orthodontic procedures and associated complications.
  - Diagnose and make appropriate treatment plan for simple orthodontic problems and take adequate care of orthodontic emergencies.
  - Trace and analyze cephalometric radiographs.
  - Perform Orthodontic treatment with simple orthodontic appliances.
COURSE CONTENT:

- Orthodontic practice management
- Development of the teeth and occlusion
- Dento-facial growth
- Biology of tooth movement
- Radiology and imaging techniques in relation to orthodontics
- Materials and biomechanics
- Aetiological basis of malocclusion
- Diagnostic procedures and assessment
- Treatment planning including design of removable orthodontic appliances
- Long-term and iatrogenic effects of orthodontic treatment
- Removable, fixed and retention appliances
- Treatment procedures and multidisciplinary care
- Orthodontics and restorative dentistry

MINIMUM REQUIREMENTS FOR ORTHODONTICS

a) Treatment of malocclusion with removable orthodontic appliances (active orthodontic treatment).

b) Treatment of malocclusion by passive orthodontic appliances (e.g. habit breaker or Space maintainer)

c) Treatment of malocclusion with functional orthodontic appliances (out of active treatment)

d) Treatment of non-extraction case of malocclusion with fixed orthodontic appliances (out of active treatment).

Periodontology (3 months)

- At the completion of this posting, the resident should
  - Know the biology of the periodontium, the diseases of the periodontium and their etiology.
  - Diagnose and treat diseases of the periodontal tissues
• Know the different methods for the prevention of periodontal diseases.
• Understand and interpret indices for the assessment of periodontal diseases.

Community Oral Health (3 months)
➢ The resident should understand:
• The basic principles of community oral health and its application to the community.
• Public health administration, planning, and organization of health services.
• Implementation of epidemiological procedures relevant to oral diseases, especially caries and periodontal diseases.
• The various methods for the prevention of oral diseases and their application.
• Appropriate dietary counseling relevant to preventive oral health.
• Oral health research methods.
• Rural Posting which involves treatment of patients in the rural setting

COURSE CONTENT
a) Preventive Strategies In Oral Health Care

b) Philosophy Of Public Health And Dental Public Health
c) Research Methodology
d) Health Education And Media Methods
e) School Health
f) Management And Evaluation Of Health Services
g) Nutrition And Oral Health

CLINICAL REQUIREMENTS
a) The use of atraumatic Restorative Technique-2 patients
b) Application of Topical Fluoride-2 patients
c) Dietary counseling- 2 patients

d) Plaque control instruction and motivation: 5 patients

e) Practical participation in Calibration in any of the common oral diseases.

f) Outpost/Outreach clinic: Extractions, scaling and polishing, dietary and oral hygiene counseling, fluoride therapy.

g) Journal reviews- 1

FIELD REQUIREMENTS

School Health Visits/Market/Antenatal clinic/Geriatric centre- The activity includes the followings:

a) Oral hygiene and Health education to school pupils.

b) Oral Health Examination of pupils for common oral diseases

c) Tooth cleaning/brushing technique

d) Nutrition Education

Oral Medicine (2 months):

➢ The resident should recognize and manage diseases of the oral and facial region. The resident should be able to:

• Acquire the relevant knowledge of the basic sciences applicable to the practice of oral medicine.

• Have competence in the diagnosis and differential diagnoses of oral mucosal diseases.

• Have an understanding of the patho-physiology regarding common disorders of the oral mucosa.

• Have an understanding of the common treatment regimens regarding oral mucosal diseases.

• Have an understanding of the dental management of systemic diseases and the relevance of such to oral health.
COURSE CONTENT:
The lecture topics and seminars should include but not limited to the following.
a) The practice of oral medicine and review of the anatomy of the oral mucosa.
b) Evaluation of patient: Examination of the oral mucosa, diagnosis and medical risk assessment.
c) Oral Mucosal immunity
d) Ulcerative conditions affecting the oral mucosa.
e) Vesicular and Bullous lesions.
f) Red and white lesions of the oral mucosa.
g) Pigmented lesions of the oral mucosa
h) Erythema Multiforme, Steven Johnson Syndrome and Toxic Epidermal Necrolysis
i) Viral Hepatitis and Tetanus
j) Epidemiology, risk factors, clinical features and management of oral cancer
k) Benign tumours restricted to the oral mucosa
l) Oral Aspects of HIV Infection
m) Pharmacological and non-pharmacological management of orofacial and Cranio-mandibular pain, discomfort and dental anxiety.
n) Dental management of patients with respiratory and cardiovascular diseases.
o) Dental management of patients with hematological diseases.
p) Dental management of patients with renal diseases
q) Dental management of patients with diabetes mellitus and other endocrine diseases.
r) Dental management of patients undergoing radiotherapy of the head and neck region.
s) Salivary glands in health and disease.
t) Genetic basis of oral mucosal diseases
u) Transplantation medicine and immunologic diseases affecting the oral mucosa.
v) Principles of minor surgery with specific reference to mucosal biopsy procedures.

MINIMUM REQUIREMENTS FOR ORAL MEDICINE
Trainees should have had experience of
- Minor oral surgery (soft tissue biopsies),
- Sialometry,
- Use of Toluidine Blue
- Brush biopsy techniques.

A logbook of clinical cases provided by the Faculty will be required to document clinical exposure. The purpose of the logbook is to indicate to the examiners the candidate’s exposure in all aspects of Oral Medicine. The logbook should enumerate the various cases managed in which the candidate was directly involved. The logbook must be signed by the supervising consultant as confirmation of completion of the cases recorded.

**Oral Radiology (2 months):**

- At the end of the 2 month posting, the candidate should be able to
  - Take and interpret intra-oral radiographs
  - Interpret extra-oral radiographs particularly of the oro-facial region.
  - Identify and recommend special investigations that may aid diagnoses.

**MINIMUM REQUIREMENTS FOR ORAL RADIOLOGY**

The trainee should be exposed to and be able to perform or participate in the following procedures:

  a. Plain radiographs (Intra and Extra oral views)
  b. Panoramic radiographs
  c. Conventional CT

**Requirements for Oral Radiology Membership Rotation**

1. Periapical radiography 10 cases
2. Occlusal radiography 5 cases
3. Panoramic radiography 2 cases
4. Conventional CT 1 case

**Oral Pathology (2 months):**

- After this posting, the resident is expected to:
  - Know the pathology and patho-physiology of common oral diseases.
  - Process and stain surgical specimens
• Participate in microscopic diagnosis of biopsies and interpretation of slides.
• Smear cytological specimens.

MINIMUM REQUIREMENTS FOR ORAL PATHOLOGY

The prescribed rotation period in Oral Pathology is for 2 months during which he/she will be involved in the biopsy services of the Department. The trainee will be expected to participate in or perform the following procedures:

• Smear cytological specimen.
• Identify histopathological features that differentiate malignant from benign lesions.
• Understand the scientific principles of surgical oral pathology.
• Participate in the running of Clinical Oral Pathology clinic
• Participate in and address Departmental seminars when scheduled to do so.

At the completion of the 2 month rotation in Oral Pathology, trainee must complete the relevant sections of the logbook which must be SCORED and SIGNED by the supervising consultant to be eligible for the Membership examination.

Medicine related Departments: (6 months of Rotation)

General Medicine (2 months):

➢ The resident should be able to
  • Recognize and handle medical emergencies especially as may occur in dental practice.
  • Recognize medical conditions of relevance in the practice of dentistry

General Surgery (2 months):

➢ The resident is expected to know
  • Pre-operative management of surgical emergencies.
  • Initial investigations and resuscitation and make appropriate referrals.
**Ear, Nose & Throat (1 month):**

- The resident should acquire knowledge in
  - Common diseases of the Ear, Nose & Throat
  - Tracheostomy

**Anaesthesia (1 month):**

- The resident is expected to acquire knowledge in:
  - Endotracheal intubation
  - Resuscitation.
  - The use of common anaesthetic drugs.

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**FORMAT FOR MEMBERSHIP EXAMINATIONS**

Logbook of cases observed, assisted and performed in the course of the said 36 months training shall be assessed by the examiners. This part of the examination shall be included in the oral examination.

The examination shall consist of three sections:

- **SECTION I (WRITTEN PAPERS)**

  Two essay papers of three hours duration each with long and short answer questions and a MCQ (Multiple choice questions) paper covering all aspects of the dental specialties.

  - **Paper I**

    It shall consist of six questions and the candidate will be expected to answer any five questions. Will cover Oral and Maxillofacial
Surgery, Oral Radiology, Oral Pathology, Oral Medicine, General Medicine, Surgery and related medical specialties.

**Paper II**
Will cover Paediatric Dentistry, Orthodontics, Conservative Dentistry, Prosthodontics, Periodontology and Community Dentistry.

**Paper III**
MCQ (Multiple choice questions) covering all aspects of the dental specialties.

➢ **SECTION II [PRACTICAL/CLINICAL (OSC/PE)]**

**Paper IV**
- **Practical/Clinical:** The practical/clinical examination shall consist of two parts of Objective Structured Clinical Examinations (OSCE) and a slide session which will cover all the dental specialties.

**SECTION III : [ LOG BOOK ASSESSMENT AND ORAL EXAMINATION (VIVA) ]**

This shall consist of:
- Paper V – Log book assessment and
- Paper VI – Oral Examination (Viva)

There will be TWO groups with each group comprising a team of examiners from five specialties are listed below. Also each group will assess the logbook.

This part of the examination will be for 25 minutes.

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<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
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<tr>
<td>Oral Surgery</td>
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<tr>
<td>Periodontology</td>
<td>Paediatric Dentistry</td>
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</table>
Oral Pathology  Prosthodontics
Radiology  Community Dentistry

To pass the membership examination, the candidate must pass in all papers of the examination and obtain at least 50% of the overall score in each of the papers of the examination. Candidates who fail any of the papers (score less than 50%) are deemed to have failed the examination.

On being successful at this examination the candidate is awarded a Membership Certificate in Dental Surgery of the West African College of Surgeons. (MWACS)

The candidate may choose to either

a) Exit the Residency Training Program and continue working in a Private or Government Health Institution, with this added professional qualification

or

b) Continue to the PHASE 3- Fellowship (FWACS) Programme to obtain a Speciality Specific Fellowship Certificate in the Faculty of Dental Surgery, of the West African College of Surgeons, (e.g. FWACS Oral & Maxillofacial Surgery or Orthodontics). With the fellowship certificate, he/she can become eligible for a Lecturer/Consultant Position in a Tertiary Institution. An acceptable period of break (if desirable/feasible) between the Membership and Fellowship study is under consideration.

An integrated course in Clinical Dentistry is arranged twice a year by the College (March/April and September/October) for candidates preparing for membership examination. It is COMPULSORY that any candidate sitting for the membership examination MUST have attended two revision courses before the membership examination.
PHASE 3: (FWACS) FELLOWSHIP TRAINING

Candidates must have passed the Membership (MWACS) Examination to qualify for the Senior Residency Training.

OBJECTIVES

Must have

a) Acquired competence in a chosen specialty in a teaching and research or health services institution,

b) Acquired competence to the level of a specialist/consultant in his chosen field.

The Fellowship (FWACS) training programme covers a period of 36 months. The Fellowship examination may be taken any time after completion of the prescribed 36 months (3years).

The senior resident is expected to have chosen an area of specialization in Dental Surgery on embarking on the senior residency programme and the training will focus on this chosen specialty.

The Areas of Specialization in Dental Surgery are:

- Oral and Maxillofacial Surgery
- Oral and Maxillofacial Pathology
- Periodontology
1. **FELLOWSHIP TRAINING IN ORAL AND MAXILLOFACIAL SURGERY**

By the end of the training in this discipline the senior resident is expected to acquire complete competence in surgical procedures and the management of the following:

- Surgical emergencies, especially severe facial trauma
- Facial cellulites.
- Mandibulectomy
- Maxillectomy
- Tracheostomy
- Orthognatic and Reconstructive surgery
- Reduction and immobilization of all types of jaw fractures
- Simple rotation advancement flaps
- Cleft lip and palate repair.
- Surgery of the TMJ and release of ankylosis
- Cyst enucleation excision
- Sequestrectomy, decortication and saucerization
- Surgery of the salivary glands
- Pre-prosthetic surgery
- Removal of impacted teeth.
- Glossectomy.

**MINIMUM REQUIREMENTS**

The following are the minimum requirements for the senior resident before he/she is signed up to take the examination.

Where some procedures are not normally carried out in that training institution, the candidate are allowed to seek permission of the College through their training institution to be allowed to fulfill that aspect of their training in another College approved institution.

A candidate who has not fulfilled the listed minimum procedures will not be allowed to sit the specialty fellowship examination.

- Surgical emergencies, especially severe facial trauma, and oro-facial cellulitis - 10
- Mandibulectomy - 10
- Maxillectomy - 5
- Tracheostomy - 2
- Orthognathic/Reconstructive Surgery - 2
- Open Reduction and Internal Fixation (Osteosynthesis) of all types of cranio-maxillo-facial fractures - 10
- Cleft lip and palate repair - 10
- Surgery of the TMJ and release of Ankylosis - 2
- Sequestrectomy, Decortication and Saucerization - 4
- Surgery of the salivary glands - 4
- Pre-prosthetic surgery - 4
- Removal of impacted teeth - 20
2. FELLOWSHIP TRAINING IN ORAL AND MAXILLOFACIAL PATHOLOGY

MINIMUM REQUIREMENTS

A candidate wishing to present himself or herself for the Fellowship Examination in Oral Pathology shall meet the following requirements:

Specifically, candidate must have written up and signed up at least 100 biopsy reports under supervision of a consultant Oral Pathologist.

There must be satisfactory rotations in the following specialties:

a) 6 months posting in Morbid Anatomy, during which candidate must have performed 10 autopsies and participate actively in routine histopathologic diagnoses.

b) 6 months posting in Clinical Pathology during which candidate shall learn basic principles of laboratory techniques and clinical implications of serum chemistry values.

c) 3 months posting in Haematology and Blood Transfusion, during which candidate shall learn basic principles of laboratory techniques and clinical implications of hematological values.

d) 3 months posting in Medical Microbiology and Parasitology, during which candidate shall learn basic principles of laboratory techniques and also learn about microorganisms that are commonly encountered in our environment, with emphasis on oral microorganisms that are implicated in oral maxillofacial infections.

e) 1 month posting in Dermatology, during which candidate shall be exposed to diagnosis and management of common dermatological
lesions encountered in the environment, especially those that have oral manifestations.
Candidate shall also learn, during this posting, basic principle of management of a medical patient.

f) 3 months posting in Oto-rhino-laryngology, during which candidate shall be exposed to pathological conditions commonly encountered in the specialty practice.

g) The Post Membership Examination posting in Oral Pathology shall be 3 years.

**FELLOWSHIP TRAINING IN PERIODONTOLOGY**

**MINIMUM REQUIREMENTS**

(a) Gingivectomy/gingivoplasty - 25  
(b) Periodontal flap operations e.g. replaced flap (modified widman) - 20  
(c) Periodontal splinting techniques - 50  
(d) Mucogingival surgical techniques  
   Coronally repositioned flap  
   Double papilla Flap  
   Free graft  
   Frenectomies/Frenotomies  
   Lateral repositioned Flap  
   Pedicle Graft  
(e) Guided tissue regeneration techniques using Barrier Membranes -10  
(f) Management of bone defects and furcation involvement - 5  
(g) Case reports - 2  
(h) Implant supported over denture 1
i) Endodontic surgery: root amputations, resections (for peri-endo lesions) - 3

MINIMUM REQUIREMENTS IN ORTHODONTICS FOR FELLOWSHIP EXAMINATION

COURSE CONTENT:
The candidate should be able to:
- diagnose anomalies of the dentition, facial structures and functional conditions
- detect deviations of the development of the dentition, of facial growth, and occurrence of functional abnormalities
- formulate a treatment plan and predict its course
- evaluate psychological aspects relevant to orthodontics
- conduct interceptive orthodontic measures
- execute simple and complex treatment procedures
- act as an expert in orthodontics and related matters
- collaborate in multidisciplinary teams for treatment of compromised patients, orthodontic-surgical treatment and care of cleft palate patients
- evaluate need for orthodontic treatment
- practice orthodontics with high professional and ethical standards
- use available opportunities for improving professional skills

In addition, emphasis is placed on:
- biomedical sciences relevant to orthodontics
- development of a scientific attitude in an inquiring mind and stimulation of professional interest
- principles of scientific methodology
- interpretation of literature
- research activities
- oral and written presentation of clinical and research findings.

Requirements for the Fellowship Examination in Orthodontics

A. **A Dissertation**

B. **Log-Book** which must show clear evidence of treatment of different malocclusions from the beginning to the end using various orthodontic techniques. Evidence of all the clinical records must be shown.

1. Ten (10) cases of treated malocclusions (out of active treatment) with removable orthodontic appliances.
2. Two (2) cases of treated malocclusions with functional orthodontic appliances (out of active treatment)
3. Ten (10) cases of treated malocclusions with fixed orthodontic appliances (out of active treatment).

At the final examination, five (5) of the most interesting cases shall be presented at the oral examination.

Of the five (5) cases presented, at least one case must be multidisciplinary. Assessment of candidates will be based on records, complexity of cases, treatment modalities and treatment outcome and presentation.

Full clinical records of the 5 cases must include:

1. **Clinical photographs**
   (Extra-oral views) - frontal, lateral and three-quarters views
   (Intra-oral views) - lower arch, upper arch, right and left lateral and frontal views in occlusion.

2. **Orthodontic casts**
   Well trimmed casts before and after active treatment. In-between treatment casts may be included.

3. **Radiographs**
   (a) Pre- and post treatment cephalograms including tracings should be provided. In-between treatment cephalograms may be included.
   (b) Pre- and post treatment panoramic radiographs must be provided. In-between treatment panoramic radiographs may be included.
   (c) Pre- and post treatment upper anterior occlusal radiographs
should be provided. In-between treatment of upper anterior occlusal views may be included.

**Specialty viva-voce**

**FELLOWSHIP PROGRAMME IN RESTORATIVE DENTISTRY (FWACS)**

**SENIOR RESIDENCY TRAINING PROGRAMME IN RESTORATIVE DENTISTRY**

The training leading to the award of a fellowship in Restorative dentistry is for three (3) years; consisting of clinical rotations, specialty trainings, lectures, seminars and patients case logs Progress to the Senior residency program depends on the successful completion of the junior residency training and the award of a Membership in Dental Surgery of the College.

This is a 36 months program commencing after passing the Membership examination. It is administered along the two broad specialties of Conservative and Prosthodontic dentistry; wherein trainees are required to acquire advanced clinical skills in patient care. Specifically, the trainee should
• Demonstrate a clear understanding of the impact and clinic outcomes of treatment and preventive care offered to patients.

• Proficient in all technical and clinical procedures required in patient care in Restorative dentistry.

• Competent in the use of clinical evaluation, laboratory diagnostic tests and imaging systems in assessing the needs of patients based on the best evidence.

• Develop the profession skills to deal with patients, colleagues and support staff.

• Demonstrate competence in teaching and research.

**Outcomes:**

i. A trainee that has developed the requisite competence across a range of clinical disciplines in Restorative Dentistry.

ii. A trainee that has acquired sufficient experience in the integration of oral healthcare plans across disciplines in dentistry in providing comprehensive treatment for patients.

**Course content:**

- Science of dental materials
- Dental caries- Epidemiology,
- Non-curious tooth loss
• Aesthetic dentistry
• Endodontics
• Occlusion
• Fixed prosthodontics
• Removable prosthodontics
• Implant dentistry
• Maxillofacial prosthetics
• Oral rehabilitation
• Periodontics and Restorative dentistry
• Dental Photography and Imaging (Radiographs, digital imaging techniques – RVG 6000, Cone Beam CT)
• Laboratory procedures
• Clinical and Laboratory equipment

**Study model / components:**

• Formal lectures
• Consultant supervised clinical training sessions
• Clinical meetings - case and patient reviews
• Clinical and laboratory skills
• Seminars
• Journal reviews
• Update courses / conferences
• Self study
• Mentored research
Resource materials:
  • Recommended textbooks
  • Journals and monographs
  • Internet

Updates and conference materials

Minimum Clinical Requirements in Conservative Dentistry for Fellowship Examination

Management of tooth wear lesions.
Construction of occlusal splint 10
Elimination of occlusal interference and balancing 5
Management of tooth discoloration
Fabrication of bleaching matrix 5
Tooth whitening using night guard technique 5
Intracoronal tooth bleaching 5
Use of Veneers: Composite & Porcelain. 5

Endodontic procedures:
Post retrieval from root canals using ultrasonic and retrieval kits 5
Root Canal Treatment (RCT) 20

RCT on anterior & posterior teeth using Endodontic hand piece, magnification
Loupes and Apex locator 10
Root curettage, apicectomies of anterior and posterior teeth 5
  Hemisection of roots 2
  Bicuspidation 2
  Surgical repair of root resorption and perforations 2
  Conservative management of lateral perforation of roots 2
  Management of avulsed teeth 2
  Management of severely damaged endodontically treated teeth 10

**Advanced conservative procedures:**

  PFM crowns and bridges 10
  Ceramic crowns/ veneers using CAD/CAM- Cerec 2
  Gold crowns 5
  Porcelain & metal inlays and onlays 10
  Minimal preparation bridges- Maryland etc 3
  Minimal preparation bridges using composite pontics and resin impregnated fibres such as Sticknet, Ribbond etc 3

Occlusion:

Occlusal rehabilitation 3

Implants:

  Implant placement in manikins 3
  Implant placement in patients 1
Minimum Clinical Requirements in Prosthodontic Dentistry for Fellowship Examination

Clinical procedure

Dentures:
- Metal-based denture (upper or lower) 3
- Upper or Lower Acrylic Based Full Dentures 3
- Upper or Lower Acrylic Based Partial denture replacing at least 4 teeth per arch 5
- Partial or Complete Immediate Dentures 2
- Flexible Dentures 3
- Repair of fractured dentures 5
- Reline of dentures 3
- Record Block Registration (Partial: 3 Complete: 3)
- Transfer of occlusal records 3
- Secondary Impression techniques 3

Maxillary prosthesis: Obturators (Observed 2)
Conventional Over dentures (Observed 1)
Implant Retained Prosthesis (Observed 2)
Facial Prosthesis (Observed 2)

Evidence of participation in the Laboratory processing of prosthesis

Evaluation:
The training institution should assess the trainees in oral and clinical skills prior to the College examinations.

**Eligibility for examination:**

- Thirty six (36) months after the commencement of the programme.
- Complete a dissertation on an approved topic.
- Attend College update courses and two (2) implant courses.
- Present a log book- (Specialty) record of work.
- At least two (2) published papers and five abstracts presented at conferences/workshops.

**MINIMUM REQUIREMENT IN PERIODONTOLOGY FOR FELLOWSHIP**

(a) Gingivectomy/gingivoplasty 25

(b) Periodontal flap operations e.g. replaced flap (modified widman) 20

(c) Periodontal splinting techniques 50

(d) Mucogingival surgical techniques
Coronally repositioned flap
Double papilla Flap
Free graft
Frenectomies/Frenotomies
lateral repositioned Flap
pedicle Graft
(e) Guided tissue regeneration techniques using Barrier Membranes 10

(d) Management of bone defects and furcation Involvement 5
(f) Case reports 2
(g) Implant supported over denture 1

Endodontic surgery: root amputations, resections (for peri-endo lesions) 3

MINIMUM REQUIREMENT IN PAEDIATRIC DENTISTRY FOR FELLOWSHIP

I. Caries Preventive Procedures
   . Clinical Application of Topical Fluoride – 20
   . Placement of Pit and Fissure Sealant – 10
II. **Restorative Procedures**

Acid Etch Restorative technique – Resin Based Composite

- Incisal tip – 10
- Labial facing – 10
- Full veneer – 10
- Posterior – 10

(c) Glass ionomer cement

- Anterior – 5
- Posterior – 20

(d) Stainless Steel Crowns 10

(e) Acrylic Jacket Crown – 5

III. **Pulp Therapy in Primary and Young Permanent Teeth**

Pulpotomies – 20

Pulpectomies – 20

Apexogenesis – 10

Apexification – 10

Root canal therapy – 10

IV. **Management of Traumatized Teeth**

Crown Fractures – 20

Luxation injuries: intrusion, extrusion,
lateral displacement, subluxation,
concussion – 10
Avulsion (Replantation) – 2
Soft tissue injuries – 5

V. Management of Oral Soft Tissue Infection
   and Periodontal Diseases

Gingivitis – 10
Herpetic gingivo-stomatitis – 2
Acute necrotizing gingivo-stomatitis – 2
Others (example ulcers) – 5

VI. Management of the Anxious Child Patient
    Non-pharmacologic methods – 20
    Conscious sedation techniques – 5
    General anaesthesia – 2

VII. Management of Special Needs and Medically
     Compromised Children – 5

VIII. Management of Cleft Lip and Palate: Role of
      the Paediatric Dentist – 5

IX. Management of Eruption And Occlusal
Disorders
Space maintainers – 5
Simple removable orthodontic appliances – 10 (of which 5 must be Oral Habit breaking appliances)

X. Oral Health talk to Pregnant/Nursing Mothers - 1

Eligibility for examination:
- Thirty six (36) months after the commencement of the programme.
- Complete a dissertation on an approved topic.
- Attend College update courses
- Present a log book- (Specialty) record of work, and present a case book of 10 different cases managed by the candidate.
- At least two (2) published papers and two (2) abstracts presented at conferences/ workshops.

MINIMUM REQUIREMENT IN COMMUNITY DENTISTRY FOR FELLOWSHIP

Residents must be proficient in the following areas
1. Preventive Strategies In Oral Health Care
2. Philosophy Of Public Health And Dental Public Health
3. Research Methodology
4. Health Education And Media Methods
5. School Health
6. Management and Evaluation Of Health Services
7. Nutrition and Oral Health
8. Basic Statistics in Oral Health
9. Computing Skills and Health Information Systems-SPSS, EPI INFO, STATA, EXCEL
10. Evidence-Based Dentistry.

**CLINICAL REQUIREMENTS**

(1) Atraumatic Restorative Technique -10 patients
(2) Application of Topical Fluoride-10 patients
(3) Dietary counseling-10 patients
(4) Plaque control instruction and motivation: 10 pts
(5) Practical participation in calibration in any of the common oral diseases.
(6) Outpost/Outreach clinic: Extractions, scaling and polishing, dietary and oral hygiene counseling, fluoride therapy.
(7) Journal reviews- 5
(8) Seminars- Five seminars in relevant field of dentistry

**FIELD REQUIREMENTS**
1. School Health Visits/Market/Antenatal clinic/Geriatric centre- The activity includes the followings:
   (a) Oral hygiene and Health education to school pupils.
   (b) Oral Health Examination of pupils for common oral diseases
   (c) Tooth cleaning/brushing technique
   (d) Nutrition Education-

2. Focus group discussion-carried out in any known Community

3. Situation analysis/ Needs assessment in a target Village/population

4. One Epidemiologic study from conception to dissemination of findings

After this posting, the senior resident should be able to:

- Collect, process, interpret epidemiological data and apply the findings in community oral health planning
- Understand and apply the general principle of epidemiology in relation to oral diseases.
- Apply topical fluorides and fissure sealants for the prevention of caries.
- Carry out effective clinical plaque control
- Plan oral health manpower requirement
- Administer public oral health programme
Utilize oral health auxiliaries effectively in the delivery of primary oral health care.

9. **Oral Medicine**

After this posting, the senior resident should have adequate proficiency to be able to:

- Perform comprehensive management of patients with common oral soft tissue lesions.
- Conduct simple epidemiological surveys of common oral disease and statistically analyze and interpret the data collected.

**Dissertation and Case Book**

The senior resident shall present a dissertation or a case book. The purpose is to expose the candidate to research methods and problem solving approach. The candidate may not be expected to make new discoveries in the research; however, the candidate is expected to demonstrate satisfactory competence in research and problem solving. The dissertation should demonstrate the experience of the resident in the management of clinical problems and practical competence in the chosen area. It should also reflect the ability of the candidate to clearly define the research problem, the aims and objectives and critically review the literature. The methodology should be appropriate to achieve the goals and data generated should be properly analyzed using relevant statistical tools when appropriate. To obtain results, discuss the findings and
make logical conclusions.

FORMAT FOR FELLOWSHIP EXAMINATIONS
Candidate shall identify research topic in a chosen specialty and bring up research proposal not later than 6 months after passing the Membership Examination, and commencing the Fellowship Phase of the Residency Programme.

The examination shall consist of three parts:

(A) Dissertation:
There shall be a presentation of a dissertation on a previously approved topic.
The topic may be a clinical study, epidemiological survey or series of case reports (case book) as relevant to the specialty of the candidate. The dissertation will be evaluated by examiners.

(B) Log Book: Quality to be graded according to the requirements of each specialty.

(C) Specialty Viva: This will consist of oral examinations at an advanced level concentrated mainly on the candidates' specialty.
• Each section of the examination will be graded at 100. The marks of three sections are not additive.
• Candidates must score a minimum of 50% in each of the sections to pass the entire examination.
• Failure in any of the parts is failure in the entire examination. The candidate is required to repeat only the parts of the examination he/she has failed at the next attempt of the examination.

Candidates must normally pass the Fellowship Examination within 10 years of passing the Membership Examination.

Candidates are eligible to apply for Fellowship Examination provided that the closing date is within five years of having passed the Membership Examination.

Otherwise, candidates must re-enter for and pass the Membership Examination prior to a further attempt at the Fellowship.