SRI RAMACHANDRA MEDICAL CENTRE
Porur, Chennai - 600 116

Department of ENT, Head & Neck Surgery

REGULATIONS AND SYLLABUS FOR
FELLOWSHIP PROGRAMME IN OTOLOGY
INTRODUCTION AND RELEVANCE:
The Department of ENT, Head and Neck Surgery has been an integral part of the Institution since its inception and has continuously been modernized with the ever growing demands of the fraternity. The Department is equipped with the latest Hi tech equipments like Zeiss (Sensera) operating microscopes, Micromotor high speed drill system (Bien Air), Nerve monitor (NIM 3) KTP 532 laser system, Endoscopes with HD cameras, microdebrider system, Media Stroboscope and Flexible Fibre optic laryngoscope. These advanced equipments are applied in day to day use in precision surgery of the ear, nose and throat. There is also a ‘State of the Art’ Temporal Bone laboratory, to enable ‘Budding’ Otologists to hone their skills on cadaveric temporal bones.

Otology has been an ever fascinating field and has never quenched the thirst of knowledge of the average otolaryngologist. This has led to the rapid advances in otology in the past few decades. The need for well trained Otologist is ever increasing and the training offered needs to be set to high standards. Therefore a post doctoral fellowship program designed to train young ENT surgeons is the need of the hour and this fellowship is intended to fill in this need to serve the fraternity and community at large.

OBJECTIVES OF THE FELLOWSHIP COURSE
A fellow at the end of one year should acquire the following:

1. Cognitive knowledge: Describe embryology, applied anatomy, physiology, pathology, clinical features, diagnostic procedures and the therapeutics including preventive methods, (medical/surgical) pertaining to Otology

2. Clinical decision making ability & management expertise: Diagnose conditions from history taking, clinical evaluation and investigations and develop expertise to manage medically as well as surgically the commonly encountered disorders and diseases in different areas as follows:
   Otology, Neurology & Skull-base Surgery: External, middle and internal ear diseases, deafness including the common complications associated with middle ear, inner ear diseases, facial Nerve palsy, tinnitus, vertigo and other conditions such as acoustic neuroma, malignant tumors, glomus tumor and petrous apex cholesteatoma etc. and to be capable of making an early diagnosis of these conditions besides acquiring adequate knowledge about principles of therapy of these diseases.

   Plastic reconstruction following major head and neck surgery & trauma: Acquire specific principles of reconstructive surgery in relation to Otology.
General principles of newer therapy / Surgery: Acquire newer knowledge about ear diseases pertaining to technological, (Laser) and pharmacologic and surgical advances in the treatment of Otological diseases including cochlear implantation. Be capable of screening audiological & speech related disabilities in the community.

Radiology: Acquire in depth knowledge about radiology / imaging and interpret different radiological procedures and imaging in Otology and skull base regions in accordance with the intended surgical procedures. He/she should maintain a fair degree of academic and clinical collaboration with Radiology department for such activities.

Audiology & Rehabilitation: understanding the underlying principle, procedure, purpose and information obtained from different audiological procedures. Interpret information with audiological and other investigations.

Have knowledge of recent development in hearing aid technology and implants technology with special reference to candidacy / assessment / counseling / rehabilitation.

3. Teaching: Acquire ability to teach Undergraduate and postgraduate students in simple and straight forward language about the common ENT ailment / disorders especially about their signs / symptoms for diagnosis with their general principles of therapy.

4. Research: Develop ability to conduct a research enquiry on clinical materials available in Hospital and in the community. He/she will be responsible for conducting audit of clinical practice in Otology in the Department.

5. Presentation of Seminar/paper: Should develop public speaking ability and should be able to make presentation on disease-conditions/research topics to fellow colleagues in a Seminar/meeting / conference using audiovisual aids.

6. Research writing: Should be able to write case-reports and research papers for publication in scientific journals.

7. Patient doctor relation: Develop ability to communicate with the patient and his/her relatives pertaining to the disease condition, its severity and options available for the treatment/therapy.

8. Preventive Aspect: Acquire knowledge about prevention of some conditions especially in children such as middle ear and sinus infection, hereditary deafness and early diagnosis of head-neck malignancy. Hence he/she should be fairly knowledgeable about preventive Otology.

9. Team work: Team spirit in patient management, working together in OPD, OT, ward and sharing responsibility with colleagues such as doctors, nurses and other staff are essential. Fellow has to develop these attributes through different mechanism of interaction.

10. The fellow will be on call for all Otological and Neuro otological emergencies and in post operative management of such cases and such other duties as may be assigned by the Head of Clinical Services.
Number of seats: 1 per year (July)

Stipend: Rs.25,000/- per month

Fee: Rs.5,00,000/- per year

Faculty: Director, Professors, Associate Professors & Assistant Professors in Department of ENT, Head & Neck Surgery.
REGULATIONS FOR FELLOWSHIP PROGRAMME IN OTOLOGY

ELIGIBILITY

Candidate for admission to the Fellowship Programme in Otology shall be required to possess the following qualifications:

(a) He/she must have qualified M.S. (ENT)/ DNB (ENT) from any recognized institution of Sri Ramachandra University or of any other University recognised as equivalent thereto.

(b) The Fellowship admitting authorities of the Medical Centre will strictly ensure that every candidate admitted for the Fellowship Programme in Otology has obtained permanent registration certificate from any one of the State Medical Councils.

REGISTRATION

A candidate admitted to Fellowship Programme in Otology of Sri Ramachandra Medical Centre, Porur, Chennai-600116, shall register his/her name with the Centre by remitting the prescribed fees along with the application for registration duly filled in and forwarded to the Head of the Department.

RECOGNITION FEE

A candidate who has passed the M.S. (ENT) / DNB (ENT) from any other University shall also remit a recognition fee as prescribed along with the stipulated registration fees.

DURATION OF THE COURSE

(a) The period of certified study and training for the Fellowship Programme in Otology shall be one academic year for the award of Fellowship certificate.

(b) No exemption shall be given from the period of study and training.

COMMENCEMENT OF THE COURSE

The Fellowship Programme in Otology would ordinarily commence from 1st July of every year.

CUT-OFF DATES

The candidates admitted and registered from 1st July to 30th June shall take up their Final examinations after one year of study and training.

COMMENCEMENT OF EXAMINATIONS

At the end of the first year there will be an examination conducted by the Department.

ATTENDANCE REQUIREMENT FOR ADMISSION TO EXAMINATION

No candidate shall be permitted to appear for the Examination unless he/she puts in 80% attendance during his/her period of study and training and produces the necessary certificate of study, attendance and progress from the Dean of Faculties.

CONDONATION OF LACK OF ATTENDANCE

There shall be no condonation of lack of attendance for Fellowship Programme students.

TRAINING

The fellow would working under the Head of Clinical Services who will assign him/her duties both within and outside the Hospital which would include elective postings, as determined by the Head of Clinical Services who is responsible for the training.
NUMBER OF APPEARANCES
A candidate registered for the Fellowship Programme in Otology must qualify in the examinations within three consequent attempts from the date of his/her admission, failing which he/she shall be discharged from the programme.

AWARD OF CERTIFICATE:
Certificate will be awarded duly signed by Head of Clinical Services & Medical Director of Sri Ramachandra Medical Centre. The Fellowship Programme in Otology does not come under the purview of MCI and not an additional qualification for Registration with the Medical Council of India.

Scheme of training programme
The fellow will primarily work in the Outpatient department and will function along with the consultant thereby assisting in day to day ward work and in surgical preparation / care.

He / She will be posted for a period of 6 weeks in the department of Speech Language Hearing Sciences for training in Audiology and Auditory rehabilitation therapy.

In addition to the faculty in the Department of ENT, senior faculty from the following departments will act as resource persons:-

a. Department of speech Language and Hearing Sciences
b. Department of Anesthesiology
c. Department of Genetics
d. Department of Maxillofacial Surgery
e. Department of Neurosurgery
f. Department of Neurology
g. Department of Plastic Surgery
h. Department of Prosthodontia
i. Department of Radiology

SYLLABUS

I. SPECIALISED KNOWLEDGE - the trainee will be expected to have in-depth knowledge in the following areas:

BASIC SCIENCES: -

1. Anatomy, Ultra structure of Human Ear.
2. Pathophysiology of Ear
3. Physiology & Reception of Speech.
4. Surgical Anatomy of Skull Base.
6. Imaging & Radiology in otological diseases
11. Intensive & High Dependency Care
13. Biomaterials.
14. Medical Negligence in Otorhinolaryngology.

OTOLOGY:

1. Aetiopathology of Inflammatory Conditions of External & Middle Ear.
2. Pathology of Cochlea.
3. Pathology of Vestibular System.
5. Ear Trauma.
8. Management of Acute Suppurative Otitis Media
11. Reconstruction of the Ear.
15. Diseases of Temporal Bone.
17. Sudden & Fluctuant Sensorineural Hearing Loss.
18. Vertigo.
20. Ototoxicity.
22. Epithelial Tumours of External Auditory Meatus.
23. Glomus & Other Tumours of the Ear.
27. Presbycusis.
28. Implantable Hearing Devices.

**AUDIOLOGY**

1. Basic and Advanced Audiological testing – overview
2. Etiology of Audiological Disorders
3. Identification and Differential diagnosis of auditory disorders
4. Middle ear disorders
5. Inner ear disorders (including NIHL, Meniere disease, Otonicity, presbyacusis)
6. Neuro Audiology
7. Identification, Differential diagnosis and management of
8. Auditory neuropathy and other conditions AV nerve
9. Central auditory disorders
10. Pediatric Audiological assessment (including Infants and Children) – interpretation of
    information obtained from Behavioral Electrophysiology assessment procedure
11. Screening for Hearing Disorders
12. Neonatal Hearing Screening
13. Screening for Middle ear Disorders
14. Self assessments of Hearing Handicap
15. Aural Rehab
16. Candidacy for hearing aids indication and contra indications
17. Recent trends in the Hearing technology
18. Assessing benefits of Hearing Aids
19. Implantable devices (Cochlear implant and middle ear implants)
20. Candidacy, audiological assessments and post surgical management including Rehab
21. Prevention of Hearing Loss
22. Strategies of prevention
23. National Government programs for prevention of deafness and other Welfare measures
   for hearing impaired
24. Noise and its effects on the ear
25. Assessing noise inducing hearing loss
26. Hearing conservation
27. Tinnitus
28. Tinnitus evaluation
29. Tinnitus restraining therapy
30. Overview of balances disorders – causes, evaluation and prevention

**PAEDIATRIC OTOLOGY**
1. Genetic Factors & Deafness.
2. The Causes of Deafness.
5. Otitis Media with Effusion.
7. Chronic Suppurative Otitis Media in Children.
8. Surgery of Congenital Abnormalities of the External & Middle Ear.
11. Vestibular Disorders in Children.
13. Foreign Bodies in the Ear & Nose
15. Dental development, Orthodontics, Cleft lip & Cleft palate.

**II. SKILLS** – the trainee will be expected to have acquired skills in at least the following domains:

**A. Clinical Skills**
   i. Clinical examination
   ii. Surgical Skills
      Temporal bone dissections: a minimum of 5 dry bones and 5 wet bones will have to be dissected
      Should assist in otologic surgery and imbibe the nuances of tissue handling, instrumentation and decision making in the operating theatre.
      Should be committed to post operative care and counseling directed towards better outcomes of the treatment.
   iii. Should be trained in the use of endoscopes in Otology and neuro otology
   iv. Counseling & communication
      • Approach to distressed and bereaved parents.
• Disclosure of diagnosis, “breaking news”, handling autopsy reports.
• Staff support and team dynamics.
• Leadership qualities.

B. Diagnostic Skills
   i. Audiological
      • Use and interpretation of results of audiological investigations with reference to diagnostics and rehabilitation imaging
      • Role of specialized investigations, e.g. MRI, CT, DSA etc.
      • Interpretation of acute otological conditions.
   ii. Ultrasound
      • Use for neuro-imaging.
      • Use for imaging ear and the brain stem.
   iii. Laboratory medicine
      • Ordering and interpretation of common investigations.
      • Liaison for special investigations of metabolic abnormality.
   iv. Microbiology
      • Common bacteriological implications in otological diseases.
      • Role of investigation, interpretation of clinical and laboratory information.
      • Investigation of sensori neural hearing loss.
   v. Neurophysiology
      • Use and interpretation of results of EEG, cortical evoked responses and neuromuscular electrophysiological tests.

C. Technological Skills
   Understanding basic mechanical and electrical function of audiometers, assisted hearing aids and cochlear implants

D. Management skills
   The trainee will be expected to have received training or experience in the following areas and to have been involved as a participant in the management of a otological cases.
   i. Personnel
      • Training in personnel management and team work.
      • Organizational skills, duty rosters etc.
      • Awareness of current medical manpower regulations and nurse staffing issues.
      • Understanding of the role of audiologist, speech therapist and audio-verbal therapist. 
ii. Audit
   • Data capture and collation, including National and local statistics and preparation of annual reports.
   • Assessment of performance; benchmarking.
   • Risk management and clinical governance.
   • Assessment of equipment and resource.

III. ACADEMIC SKILLS:
A. Teaching
   i. Formal training in teaching methodology.
   ii. Experience in postgraduate teaching, including working in different teaching media (lecture, seminar, interactive tutorial).
   iii. Experience and willingness to undertake undergraduate medical teaching and nurse education.
   iv. Development of teaching materials and organization of teaching courses.
   v. Involvement in the audit process, including attendance at departmental mortality meetings.
   vi. Ability to assist in organizing Temporal bone dissection laboratory as well as live cadaveric dissection courses.

B. Continued personal development:
   i. Computer literacy and familiarity with commonly used systems.
   ii. Critical approach to information gained from literature review and audit.
   iii. Preparation of manuscripts and teaching materials.
   iv. Oral presentation skills.
   v. Time management skills.
   vi. “Reflective practice” skills – learning and creating knowledge by personal reflection.

C. Research
   i. Innovative approach to clinical problems.
   ii. Willingness to assess evidence of which to base practice.
   iii. Understanding of research methodology, including the randomized controlled trial.
   iv. Attendance at research orientated national meetings.
   v. Undertake a defined piece of academic research, leading to publication in a peer-reviewed journal.
**TEXTBOOKS**

2. Paparella Otolaryngology-Third edition
5. Manual of Middle ear Surgery Mirko Toss (2001)
6. Manual of Middle ear Surgery by Ugo Fisch

**JOURNALS**

1. Indian Journal of Otolaryngology and Head neck Surgery.
4. Laryngoscope.
6. Archives of Otorhinolaryngology.
8. Otology & Neurotology.
9. Laryngology & Otology.
13. American journal of Otololaryngology
15. Asian Journal of Ear, Nose and Throat
20. Seminars in Speech and Language.

DATABASES AND SEARCH ENGINES
Internet Grateful Med
PubMed
ISI Citation Database
OMIM
Medical Photographic Library
Images from the History of Medicine
Grand rounds and lecture notes on various topics

Other Resources
Biomednet
Internet Tutorials
Medscape

Fellowship Course in Otology
Applications are invited for Fellowship Course in Otology
In the Department of ENT Head and Neck Surgery, Sri Ramachandra Medical Centre.
Eligibility: Candidates possessing MS or DNB in (ENT) from any recognized institution are eligible to apply. Duration of the course is one year starting July 2015.
One candidate will be selected.
Stipend of Rs.25, 000 per month
Last date for applying: 31st May.
Apply with your Resume to Prof Lt Col A. Ravikumar, Director & Head of Clinical Services, Dept of ENT Head and Neck Surgery, Sri Ramachandra University, Porur, Chennai – 600 116.
Contact No: 044 24765516 extensions 312 / 490.