



All India Institute of Medical Sciences (AIIMS) Kalyani

DEPARTMENT OF ENT (OTOLARYNGOLOGY & HEAD-NECK SURGERY)

CURRICULUM

MASTER OF SURGERY

ENT (OTOLARYNGOLOGY & HEAD-NECK SURGERY)

FACULTY

**COL. (Dr.) AJAY MALLICK
PROFESSOR & HoD**

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JUNIOR RESIDENTS

**PRIYANKA HALDAR
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OTOLARYNGOLOGY & HEAD NECK SURGERY

AIM & VISION

Introduction

“To serve the mankind through education and Improving lives through learning.”

Vision Statement: Founded as “an Institution of the highest order” and guided by the motto Meliora or Ever Better, the AIIMS Kalyani will help solve the greatest challenges in the field of Otorhinolaryngology of the 21st century by:

- I. Accelerating our progress as an national leader in Medical sciences, health care services.
- II. Empowering our students to fulfil their academic and professional passions in a platform that is diverse, welcoming, and inclusive for all undergraduate and postgraduate students, faculties, and staffs.
- III. Creating innovative connections among education, patient care services and health science.
- IV. Strengthening support for a dynamic faculty dedicated to teaching, mentoring, research, clinical care, and extracurricular activities related to postgraduate curriculum.
- V. Serving our community of future alumni and friends through imaginative programs that enrich their lifelong relationship with the Institute and that expand our collective contributions to the world.
- VI. Embracing our leadership position IN THE DOMAIN OF Otorhinolaryngology in West Bengal and the Nation by making our community a model for partnership among academic, health care organizations.

Mission: To develop Department of ENT, AIIMS KALYANI, as a center of excellence, by Imparting quality POST GRADUATE education, to generate competent, skilled and humane OTORHINOLARYNGOLOGISTS.

ENT department is focusing on three thematic areas and functioning on imparting value based postgraduate education and community services.

Theme A: Academic programs are the registered offerings of the college and include postgraduate areas of study, structured postgraduate programs and certificates.

Themes are meant to represent broad interdisciplinary academic areas of student interest and, therefore, areas in which we need to ensure our ability to offer learning opportunities.

Theme B: Environments for Mentoring and Teaching – Learning seeks to capture the interrelationships among the three areas under its purview while remaining sensitive to the multidimensional nature of the environment in which our postgraduate students learn.

Theme C: Faculty Planning, Scholarship and Development seeks to identify goals which will support and strengthen our faculty community as a whole. Two goals were constructed:

Ensure that our faculty have the content and practice expertise necessary to serve the current and future needs of postgraduate students, and

Support faculty development in terms of scholarship and practice. The goals and objectives outlined in this section focus on the faculty as a collective and at the institutional level, not on the professional development, career planning or particular work-life balance needs of individual faculty members that

are better addressed on an individualized basis.

AIMS

The aim of postgraduate medical education shall be to produce a competent specialist and / or a medical teacher as stated in the Post Graduate Medical Education Regulations 2000 and its amendments thereof [May2018]

- (i) Who shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
- (ii) Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
- (iii) Who shall be aware of the contemporary advances and developments in the discipline concerned.
- (iv) Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology, and
- (v) Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

OBJECTIVES

At the end of 3 years MS course in ENT, the student will be able to:

- Practice the specialty of Otolaryngology, head neck surgery in keeping with the principles of professional ethics.
- Recognize the key importance of deafness control programme in the context of health priority of the country.
- Take detailed history, perform physical and local ENT examination including fiberoptic, indirect Laryngoscopy, Anterior, Posterior rhinoscopy, diagnostic nasal endoscopy, otoscopy, basic audiometric and vestibular assessment and interpretation.
- Perform relevant investigative and therapeutic procedures for the ENT patients. Interpret important imaging and laboratory results.
- Diagnose ENT problems based on the analysis of history, physical examination and investigative work up.
- Plan and deliver comprehensive treatment for ENT pathologies.
- Plan and advise measures for the prevention of deafness, allergies, head neck cancers and to plan rehabilitation accordingly.
- Manage ENT emergencies efficiently.
- Demonstrate skills in documentations of case details and of morbidity and mortality data relevant to the assigned situation.
- Demonstrate empathy and humane approach towards patients and their families and respect their emotions.
- Demonstrate communicate skills in explaining management and prognosis, providing counseling and giving health education messages to patients and their families.
- Develop skills as self directed learner, recognize continuing educational needs, use appropriate resources and critically analyze relevant published literature in order to practice evidence based Otolaryngology.
- Demonstrate competence in basic concepts of research methodology and epidemiology.

- Facilitate learning of medical/nursing students, practicing physicians, Paramedical health workers and other providers as a teacher trainer.
- Play the assigned role in the implementation of National deafness programs, effectively and responsibly.
- Organize and supervise the desired managerial and leadership skills.
- Function as a productive member of a team engaged in health care, research and education.

SYLLABUS

Syllabus for Individual Papers

Paper –I

Physiology- Mechanism of perception of smell and taste, mechanism of breathing and voice production, lacrimation, deglutition and salivation. Functional tests of the nose and para nasal sinuses, Mechanism of cough and sneezing.

Physics of sound, theories of hearing, mechanism of perception of sound and speech Production, Physiology of equilibrium & Cerebral function. Physiology of brain in connection with hearing, speech, smell and phonation. Audiologic tests like audiometry, impedance, evoked potentials, OAE, Speech audiometry Physiology of larynx, tracheobronchial tree & oesophagus - Histology of mucous membranes, internal ear and other associated organs and structures, nose, PNS NPx, Larynx, Tracheo bronchial tree, Lymphoepithelial system. Mechanism of immune system/immunology and genetics.

Anatomy- Embryogenesis of ear, nose and throat including palate and the larynx, Oesophagus, trachea and lungs, tongue, salivary gland Head & Neck & skull base etc. Parapharyngeal spaces in the neck including connective tissue barriers of larynx. Applied anatomy of the skull bones, accessory sinuses, external, middle and inner ears, nose, PNS, nasopharynx, meninges, brain, pharynx, larynx, trachea and bronchii, lungs, pleurae oesophagus and the mediastinums.

Anatomy of all cranial nerves with their functions.

Paper-II

1. Clinical methodology as applied to ORL HN disease in adult & children and the accessory sinuses, diagnosis and surgical treatment of diseases of nose, throat and ear in adult and children. Prevention and treatment, infectious diseases of Otolaryngology and Head Neck region. Circulatory and nervous disturbances of the nose, throat and ear and their effects on other organs of the body. Deformities, injuries sinus infections, polyps and the tumours of the nose, and paranasal sinuses. Examination of the ear, deafness and allied diseases, complications of diseases of the ear. Injuries, tumours, nervous and circulatory neurological disturbances of the ear. Diagnosis and treatment of tinnitus and vertigo. Diagnosis and rehabilitation of the Hearing handicapped including, dispensing of hearing aid other vibrotatile aids.

2. Surgical pathology of Otolaryngology and Head Neck region.

3. Basic knowledge of the anaesthesia as related to ENT.

4. Examination of diseases of children (Pediactric ORL) in connection with throat and larynx.

Neurological and vascular disturbances. Congenital and neonatal stridor.

5. Pathology of various diseases of the larynx and throat, tracheo bronchial tree and their causative organisms.

6. Indications and various techniques of direct laryngoscopy, nasal endoscopy, bronchoscopy and oesophagoscopy, including microlaryngoscopic procedures.

7. Reading of radiograms, scans, audiograms, nystagmograms and tympanograms in connection with ENT diseases/ disorders.

8. Special apparatus for the diagnosis and treatment of the diseases of ear, nose and throat including audiometer, BERA, ENG, Speech analyser etc.

Paper- III

1. The recent developments in the diagnosis pathogenesis treatments of the ENT diseases.
2. The knowledge of the frontiers of the oto-laryngology and lateral skull base surgery.
3. Rhinoplasties, endoscopic sinus surgery, and anterior cranial fossa surgery.
4. Knowledge of LASERS and fibre optics.
5. Other methods of managing Hearing loss.
6. Implantable hearing aids.cochlear implants.
7. Phonosurgery
8. Etiology and Managements of sleep apnoea/snoring,
9. Hypophysectomies and optic nerve decompressions.
10. Immunotherapy and modalities of the gene therapy
11. Newer techniques for Radiotherapy including, use of gamma knife for treatment of intracranial tumours and other malignancy.
12. Chemotherapy of cancer.

Paper –IV

1. General surgery, Head & Neck oncology, and & Medicine as applicable to the ENT disorders/ diseases. Surgery of congenital deformities of nose, ear (Pinna) & trachea/oesophagus etc.
2. Radiology, Imaging – computed tomography and magnetic resonance imaging, (MRI) and interventional radiology and angiography as related to E.N.T.
3. General pathologic aspects such as wound healing and also Pathology and Pathogenesis of ENT diseases, Pharmacology, molecular biology, genetics, cytology, haematology, and immunology as applicable to otolaryngology.
4. General principles of faciomaxillary traumatology and also neck injury, Plastic surgery as applicable to Otolaryngology.
5. Basic computers, computer averaging of the biological signals and its applications in Otolaryngology & Otolaryngologic equipments.
6. Audiologic and speech disorders and their management strategies.
7. Principles of Jurisprudence and ethical issues and applicable to ENT surgeons.

Name of Books:

- Diseases of ear, nose and throat.- Scott Brown
- Head and Neck surgery- PM Stell & AGD Maran
- Surgery of the Ear. Glasscock & Shambaugh
- Otolaryngology –Head & Neck Surgery Cummings
- Audiological assessment. Anirban Biswas
- Colour Atlas of Head & Neck Surgery. Jatin P Shah
- Otology By Paparella.

Journals

- Archives of Otolaryngology.
- Journal of Laryngology & Otology.
- Otolaryngologic clinics of North America.
- Indian Journal of Otolaryngology& Head &Neck Surgery
- Laryngoscope

Course and Curriculum of M.S. Otolaryngology (ENT)

COURSE GOALS

Patient Care Ability: A Postgraduate in ORL-Head and Neck surgery at the end of its 3 year course should develop proper clinical acumen to interpret diagnostic results and correlate them with symptoms from history taking and become capable to diagnose the common clinical conditions/diseases in the speciality and to manage them effectively with success without making any serious complications; and sincerely to take such accurate decision, for the patient's best interest including making a referral to consultation with a more experienced colleague /professional friend while dealing with any patient with a difficult condition. He/ she should be able to create awareness about preventive Otolaryngology in the society.

Teaching Ability: He/she also should be able to teach an MBBS student about the commonly encountered conditions in ENT pertaining to their diagnostic features basic pathophysiological aspect and the general basic management strategies.

Research Ability: He/she should also acquire elementary knowledge about research methodology, including record-keeping methods, and be able to conduct a research enquiry including making a proper analysis and writing a report on its findings.

Team work: He/she should be capable to work as a team member. He/she should develop general humane approach to patient care with communicating ability with the patient's relatives especially in emergency situation such as in Casualty department while dealing with cancer patients and victims of accidents. He/she should also maintain human values with ethical consideration.

PRACTICAL TRAINING

A Junior Resident doctor, pursuing a P.G. Degree course is expected to perform Major and Minor surgical procedures independently as well as under supervision of a faculty member/a senior resident. She/he should be able to do many major operations independently such as: (Few examples only given): Tracheostomy, Tonsillectomy, Adenoidectomy/grommet insertion, Nasal Polypectomy, Incision/drainage of deep neck space abscesses, S.M.R. & Septoplasty, Cortical mastoidectomy, Modified radical Mastoidectomy.

Be able to manage common emergencies like, fracture nasal bone, stridor requiring a tracheostomy, epistaxis, Subperiosteal abscess, and Peritonsillar abscess.

He/she should be capable to do minor operations independently viz, (Few examples only given)

- Myringotomy and myringoplasty
- Antral washout and nasal biopsy
- Sub-mandibular salivary gland removal
- Biopsy from a neck mass, such as a node
- Direct Laryngoscopy
- Nasopharyngoscopy
- Flexible Bronchoscopy and Oesophagoscopy
- Aural polypectomy

He/she should be able to do the following operations under supervision/guidance of senior colleagues/ faculty member (Few examples only given):

- FibreOptic rigid endoscopy of oesophagus
- Intranasal ethmoidectomy /FESS
- External ethmoidectomy
- External fronto ethmoidectomy
- Maxillectomy (Partial and Total)
- Excision of thyroglossal cyst
- Superficial Parotidectomy
- Radical block dissection of the neck for metastatic nodes.
- Total Laryngectomy for cancer.
- Laryngofissure
- Repair of laryngotracheal trauma.
- Ligation external carotid artery

He/she should be able to do under guidance/supervision the following specialised operative procedures (Few examples only given):

- Facial nerve decompression
- Pinna-Repair (Post-traumatic)
- Surgery of Choanal atresia,
- External canal atresia-surgery,
- Functional endoscopic/sinus surgery,
- Stapedectomy
- Tympanoplasty with mastoid surgery
- Rhinoplasty for cosmetic purposes.
- Fibre-optic bronchoscopy and oesophagoscopy including foreign body removal
- Cryo/Laser surgery in ENT
- Microlaryngoscopic voice-surgery for vocal nodules, polyps/ cyst etc
- Phonosurgery for cord palsy including type I thyroplasty.
- Skull base/parapharyngeal space surgery
- CI Surgery (Asist a senior surgeon)
- Thyroid surgery,
- Laryngo-tracheal stenosis – surgical correction,
- Faciomaxillary injury etc.

TEACHING METHODS

The following learning methods are to be used for the teaching of the postgraduate students:

- 1. Journal club:** 1 hrs duration - Paper presentation/discussion - once per week.
- 2. Seminar :** One seminar every week of one hour duration .
- 3. Lecture/discussion :** Lectures on newer topics by Faculty, in place of seminar/as per need.
- 4. Case presentation in the ward and the Special clinics (such as vertigo / otology Tumour clinics).** Resident will present a clinical case for discussion before a faculty and discussion made pertaining to its management and decision to be recorded in case files.
- 5. Surgicopathological Conference:** Special emphasis is made on the surgical pathology and the radiological aspect of the case in the pathology deptt. such exercises help the ENT/Pathology/Radiology Residents.
- 6. Combined Round/Grand Round:** presentation of unusual or difficult patients. Presentations of cases in clinical combined Round and a clinical series/research data on clinical materials for benefit of all clinicians/ Pathologists/other related disciplines once in week or fortnightly in the Grand round.
- 7. Community camps:** For rural exposure and also for experiences in preventive aspect in Rural situation/ hospital/school
- 8. Emergency situation:** Casualty duty to be arranged by rotation among the PGs with a Faculty cover daily by rotation.
- 9. Afternoon Clinics:** (i) **Vertigo Clinic :** Once a week. All the patients of vertigo attending ENT OPD/referred cases are worked up in details by the Junior Residents and are discussed with one/two Faculty and treatment, decided upon.
ii) **Tumour clinic/head-neck Cancer Clinic:** Once a week. In collaboration with the Radiotherapy Department, the patients with head and neck cancer in the field of ENT and Head and Neck are worked up by the Junior Residents and discussed about for their management by the ENT as well as Radiotherapy Consultants and treatment decision, made.
(iii) **Rhinology Clinic:** Once/week for patients with sinus diseases and nasal deformity for rhinoplasty-presented and discussed. Decision for FESS/Rhinoplasty or only other treatment taken.
(iv) **Otology Clinic:** Once a week. The ear cases are thoroughly investigated and are discussed by the Junior Residents with the faculty for their management/discussions are made after each case is presented. Audiologist also participates in this clinic.
- 10. Bedside clinical training for patient care management and for bedside manners:** Daily for ½ to one hour's duration during ward round with faculty and 1 hour in the evening by senior resident/ Faculty on emergency duty, bedside patient care discussions are to be made
- 11. Death Cases:** Once a month/ once in 3 months the records of such cases are presented by the Senior Residents. The Junior Residents are encouraged to participate actively in the discussion in the presence of Faculty of ENT and hospital administration. This programme helps to take corrective measures as well as to maintain accountability in patient management.
- 12. Clinical teaching:** In OPD, Ward rounds, Emergency, ICU and the Operation Theatres: Residents/ Senior Residents and Faculty on duty in Respective places – make discussion on clinical diagnosis/ surgical procedures/ treatment modalities, including post operative care and preparation discharge slip.
- 13. Clinical interaction with audiologists/speech therapist:** Clinical interaction with audiologist/ speech therapist pertaining to management of the patients with 1audiological/speech problems are to be made/discussion arranged. Audiologic methods and therapy strategies are to be made known to Resident doctors.

14. Research Methodology : Courses and Lectures are to be arranged for the residents for language proficiency by humanity teachers besides few lectures on human values and ethical issues in patient care.

15. Writing Thesis: Thesis progress is presented once in 3 months and discussion made in the dept. Guides/co-guides are to hear the problems of the candidate; can provide assistance to the student. Progress made or any failure of the candidate may be brought to the notice of college Dean/Principal.

16. Cadaveric dissection Lab: Cadaveric temporal bone, Nose & Paranasal Sinuses and head & neck dissections must be arranged in the Departmental Lab and/or in the anatomy department for learning surgical anatomy by dissection as per the facilities available.

Final Examination & Examiners

TENTATIVE SCHEDULE

A Post graduate at the end of a 3 year P.G. degree course 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 Otorhinolaryngology – Head & Neck Surgery.

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, Facial Nerve palsy, tinnitus, vertigo and other conditions such as acoustic neuroma, malignant tumors, glomus tumor and petrous apex cholesteatoma etc., capable of doing early diagnosis of these conditions and also to acquire adequate knowledge about principles of therapy of these diseases.
- **Rhinology and anterior skull base surgery** : Able to diagnose and perform diagnostic nasal endoscopy, and the management of Nose and Paranasal sinus conditions such as infection, polyps and allergy. Acquire some surgical skills to do septorhinoplasty, septoplasty, functional endoscopic sinus surgery (FESS). Develop capability to do oncologic diagnosis and therapy planning for proper management of such patients in collaboration with Radiation Oncology and Medical Oncologists.
- **Laryngology** : Able to diagnose and manage benign lesions of the larynx ,should be able to perform Fibre Optic Laryngoscopy including voice-disorders pharyngeal and nasopharyngeal diseases, viz-adenoids and angiofibroma. Capable to do diagnosis of oncologic conditions such as laryngeal carcinoma and plan its therapy strategies.
- **Oral cavity/salivary glands** : Learn about Oral cavity and salivary gland diseases, their diagnosis and therapy planning with referral strategies for cancer patients to advanced cancer centres/Hospital.
- **Head/Neck conditions/diseases** : Learn about head and neck diseases including Parotid gland and thyroid diseases, neurogenic tumors and neck space infections, their management and their diagnosis and therapy planning with referral strategies for cancer patients.
- **Broncho-esophageal region** : Learn about broncho-esophageal diseases/disorders such as congenital disorders, diagnosis of Foreign bodies in wind/food pipes with their management policies. Capable to perform Panendoscopies for oncologic evaluation in the head-neck region.
- **Plastic reconstruction** following major Head Neck surgery & trauma : Acquire general principles of reconstructive surgery and its referral needs.
- **Advanced Surgical methods**: Acquire knowledge about phonosurgery like microlaryngoscopic surgery, palatopharyngoplasty for VPI & Cleft palate, and thyroplasty for voice-disorders.
- **General principles of Newer Therapy/Surgery**: Newer knowledge about ENT diseases in general, including technological (Cochlear Implant Surgery, Radiofrequency, Coblation, Robotic Surgery,

LASER) and pharmacologic advances (medicines) and newer method of therapy for certain conditions such as Obstructive sleep apnoea syndrome and asthma.

- **Traumatology & Facio-maxillary Injury** : Acquire knowledge in the management of Traumatology in general and Faciomaxillary injury in particular, including nasal fractures, management of Polytrauma Patients.
 - **Community** - Be capable of doing screening in the community, of the audiological & speech related disabilities, and also to do early identification of malignancies and create its awareness in the community/ society to eventually get better cooperation from people in health management.
 - **Radiology**: Acquire knowledge about Radiology/Imaging and to interpret different radiological procedures and imaging in Otolaryngology – Head and Neck and skull base regions. There should be collaboration with Radiology department for such activities.
 - **Audiology & Rehabilitation** : Perform different audiological and neuro-otological tests for diagnosis of audiologic/vestibular disorders/diseases and become capable to interpret these findings and to incorporate their implication in diagnosis and their treatment including the rehabilitative methods in audiology and speech pathology including hearing aids and other assistive and implantable devices. Assist in new born screening programmes.
 - **Psychologic and social aspect**: Some elementary knowledge in clinical Psychology and social, work management is to be acquired for management of patients, especially those terminally ill and disable-persons and interacting with their relatives.
3. **Teaching**: Acquire ability to teach an MBBS student 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.
 5. **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.
 6. **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 know about the preventive Otorhinolaryngology (ENT).
 7. **Identification of a special areas within the subject**: To further develop higher skills within the specialty in a specialized area such as Otology, Neurology, Rhinology, Head and Neck oncology, Skull base surgery and audiological medicine, resident may identify some area of interest, during the Residency and plan to do Fellowship/Senior Residency Programme in one such subspeciality.
 8. **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.

9. **Research writing:** Should be capable to write case-reports and research papers for publication in scientific journals.

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

DETAILED TRAINING SCHEDULE

I. ORIENTATION PROGRAMME(during-6 months): in Ward, OPD, OT - Emergency Common Foundation Course

II. DISCIPLINE TRAINING (during – 2 ½ yrs)

1. Ward Round daily (Patient care/Teaching)
2. OPD – Case base Learning & Patient care
3. Demonstration of operative procedures in OT and
4. Case-presentation/discussion (Afternoon special clinics)
5. Journal Club Weekly
6. Seminar weekly including presentation of thesis progress
7. ENT- Pathology round
8. ENT- Radiology round
9. Thesis submission after final presentation
10. Audio vestibular / experimental Labs – Perform basic audiology and vestibular tests
11. Temporal Bone dissection-5 bones should be dissection and submitted with all basic middle end ENT procedure . Assessment Exposure during 2nd-3rd year every 6 monthly
12. Attendance in State, Zonal/National level,Conferences/Workshops/symposium during (2nd-3rd yr)
13. Community service-patient care camp/Awareness camps on ear diseases/Head-neck oncology, hearing assessment and awareness camp (especially for preventive otolaryngology during 2nd-3rd year).

Duration of Training and Rotation Programmes (ward/OT/OPD) First Year

- Spends 6 (six) months in orientation programme including exposure to Audiology Section and Vestibular Laboratory;
- Learn bedside history taking in ward, OT exposures, casualty, ICU requirement and their visit to related disciplines such as Neurosurgery/Anaesthesia/Plastic Surgery.
- Care of indoor (Medical; preoperative and postoperative) patients for a minimum period of 6 months.
- Attends operation theatre and emergency operations for acclimatization.
- Assists ward rounds and visit other wards with senior colleagues to attend call/consultations from other dept.

Rotation In Departments:-

- A) NeuroSurgery-1 ½ months
- B) Reconstructive Surgery-1 ½ months

Participates in the teaching sessions in ward for bedside clinical aspect in the weekly afternoon Seminar/Journal Club.

After 6 months of orientation during 2 ½ yrs:

- Attends ENT OPD
- Discusses problematic cases with the consultant(s) in OPD/ward
- Attends Operation Room/theatre by rotation
- Attends morning rounds/ week
- Looks after minor O.T. by rotation in the OPD area for minor procedures.
- Care of the indoor patients on beds allotted to him/her.
- Attends the weekly Journal Club and seminar and presents the same by rotation.
- Attends Vertigo Clinic, Otology Clinic, Rhinology Clinic and Tumour Clinic and presents cases participates in discussions including therapy planning etc.
- During the 2 ½ years, the resident must attend the combined Teaching Programme of the Department of Surgery, Neurosurgery and Medicine i.e. Clinical meetings, CPC's of students and staff of the whole hospital.
- Surgicopathological conference in Pathology Department, with surgeons.
- All kinds of specially prepared lectures by deptt faculty or from R.T./Plastic or Neurosurgery deptts.
- Visits by rotation the Rural Clinic for community exposures/work experience
- Does emergency duty as per Roster of the deptt.
- Attends lectures by Visiting Faculty to the deptt/college from India/abroad.
- Attends/participate/present papers in State/Zonal/National conferences.
- Actively participate/help in organization of Departmental Workshop, Courses in specialised areas like FESS/Otology, Rhinoplasty, Neurotology and Head-Neck Oncology from time to time.

Research methodology/ Reporting on research

- Learns the basics in research methodology and make the thesis protocol within 4 months of admission.
- Problem oriented record keeping including use of computer.
- Use of Medical literature search including through Internet use, in the Library.
- Attends biostatistics classes by arrangement.
- Research Report writing including preparation of Protocol for Research/Thesis.
- Writing an abstract/short paper/presentation style (Slide- making & audiovisual aids).
- Preparation of a report on a research project/Thesis.
- Humanity/ Ethics:
- Lectures on humanity including personality development, team spirit and ethical issues in patient care and human relationship including, public relations, by Psychologist and public relation officers are to be arranged by the deptt./college.

THESIS/DISSERTATION GUIDELINES:

Every candidate shall carry out work on an assigned research project under the guidance of a recognized post-graduate teacher, the results of which shall be written up and submitted in the form of a Thesis/Dissertation.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, statistical methods acquaintance with the latest advances in medical sciences and the manner of identifying and consulting available literature.

The topic of thesis and plan of work shall be submitted and presented by candidate before by research/scientific committee and Institutional Ethics Committee and can start the work after due approval from these bodies.

The dissertation should be written under the following headings:

- I. Introduction
- II. Aims or objectives of study
- III. Review of Literature
- IV. Material and Methods
- V. Results
- VI. Discussion
- VII. Bibliography
- VIII. Annexure

Four hard copies of dissertation/thesis along with soft copy on a CD thus prepared shall be submitted to the Sub Dean (Academics), six months before the commencement of final examination.

Candidate submitting thesis after the last date (as notified by the Academic Section) shall not be eligible to appear in ensuing the final examination. Thesis once rejected the candidate will have to appear after six months, after making necessary modification and resubmission.

To be eligible to be declared as successful in the PG Degree examination, it is compulsory for candidate to pass in all heads of the examination in the same attempt.

Thesis shall be examined by a minimum of 3 examiners (One internal and Two external) who shall not be examiners for theory and practicals. At least two examiners shall approve the same 3 Months before final examination otherwise candidate will lose his 6 months. The thesis shall not contain anything, which can reveal the identity of the candidate.

GUIDE:

Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as lecturer or Assistant Professor gained after obtaining is considered as Post Graduate teachers and can guide the P.G. students.

A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by Medical Council of India. The Co guide shall be a recognized postgraduate teacher.

CHANGE OF GUIDE :

In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the University.

ASSESSMENT

CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO-GUIDE

Name of the Student: _____

Name of the Faculty/Observer: _____

Date: _____

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Periodic consultation with guide/co-guide					
2.	Regular collection of case material					
3.	Depth of analysis / discussion					
4.	Departmental presentation of findings					
5.	Quality of final output					
6.	Others					
	Total Score					

EVALUATION REPORT OF DISSERTATION/THESIS OF MD EXAMINATION

Roll No./ Code No. _____ Subject _____

Name of the Candidate (To be filled by office) : _____

Title of Dissertation : _____

THESIS EVALUATION CHART

Major Head	Criteria	Remark	
Title	Appropriateness.	YES	NO
	Clarity & brevity.	YES	NO
	Justification of the topic.	YES	NO
Introduction	Purpose of study.	YES	NO
	Mention of lacunae in current knowledge.	YES	NO
	Hypothesis, if any	YES	NO
Review of Literature	Relevance.	YES	NO
	Completeness.	YES	NO
	Is it current and up-to-date?	YES	NO
	Citation of reference is properly done or not?	YES	NO
Methods	Type of study mentioned	YES	NO
	Details of subjects. (I.e. cases) and controls.	YES	NO
	Details of materials (for e.g., apparatus used, laboratory tests, etc.) and experimental design.	YES	NO
	Procedure used for data collection is upto the mark	YES	NO
	Statistical methods employed, level of significance considered.	YES	NO
	Statement of limitations.	YES	NO
	Mention of ethical issues involved.	YES	NO
Observations and results	Logical organization in readily identifiable sections.	YES	NO
	Correctness of data analysis.	YES	NO
	Appropriate use of charts, tables, graphs, figures, etc.	YES	NO
	Statistical interpretation.	YES	NO
	Objectivity of interpretation	YES	NO
Discussion	Relevance (within framework of study) and appropriateness for data.	YES	NO
	Interpretation of implication of results.	YES	NO
	Statement of limitation of interpretation (Mention of appropriate caution while stating inferences).	YES	NO
	Mention of unanswered questions.	YES	NO
	Mention of questions raised.	YES	NO
	Summary and conclusions.	YES	NO
Annexure	Whether all required annexure and appendices are included, e.g. the clinical Proforma, the questionnaire used, etc.	YES	NO

RECOMMENDATION: (Please strikeout whichever is not applicable)

1. Adequate and acceptable

2. Acceptable subject to modifications/corrections & clarifications, (Please mention reasons and mention sections to be revised before resubmission)

3. Not acceptable for reasons stated below. Reason for 2 or 3

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Date:

Place:

Signature of the Examiner

Name :

Designation :

Address :

Contact Number :

E- mail :

The Oral, Clinical and Practical Examination:

Results of the examination will be declared as pass/failed/pass with distinction (Grades/marks may also be given if necessary as per University Rules). While doing so, both, formative and summative assessment will be taken into consideration.

Assessment

Formative: 25% (6 monthly, each with 5% weightage) Based on day to day/semester Tests, jointly or individually assessed by different faculty members & computed and a final aggregate will be considered together and that will considerate a 2.5% weightage:

Summative: Final Examination - will have a 75% weightage: Basic Theory/practical examination. Both Formative assessment and Summative assessment will be added together at the time of final examination, and results prepared accordingly.

The Examination for the degree (MS-ENT) shall consist of

Theory exams : Papers

Practical Exams : clinical, Oral, instruments/specimen/X-rays.

1. **Theory :** There shall be four papers: Each being of three hours duration. Each paper will have 8-10 short questions from the curriculum.

Paper I Basic Sciences related Otolaryngology

Paper II Principles and Practices of Otolaryngology

Paper III Recent advances in Otolaryngology and Head Neck surgery.

Paper IV General Surgical Principles & Head-Neck Surgery.

2. **Practical Examination-** (a) Identification of Surgical Pathology, excised specimens & discussion, Reading X-Rays & CT Scan/MRI/Identification of Instruments & discussion, interpretation as audiovestibular investigations such as audiogram, ABR, ENG etc. simulated surgical situation/steps of operative procedures, required instruments/discussion.

Clinical Patient presentation/discussion:

(i) **One long case:** The long case will be structured, comprising history taking, clinical examination, investigations, decision making, proposed treatment modalities, ethical justification and personal attributes.

(ii) **Two short cases:** The short cases will also be structured in which only one particular system may be considered and therapy decision/discussion, made

Examiners/ Final Examinations

a. There shall be four examiners including two external and two internal. One of the internal examiner will be the Head of the Deptt and he /she shall be Chairman/Convener. The second internal examiner shall be next senior most member of Faculty of the deptt provided he/she is eligible for such duty.

The necessity of an external examiner is to maintain the standard of the examination at the National level. All examiners must be a full time teacher with requisite experience as per MCI guidelines. Honorary teacher with previous full time experience (of 10 years standing) may only be made examiners if there does not exist any a full time qualified faculty under the same university/college. No Hony. Faculty shall be made a chairman/convener of the examination.

b. The external examiners will be asked to send two sets of question papers for the theory examination.

There will be 2 external examiners from a different University so that the number of questions available, will be double the number which will be given to the student in the moderated papers. The Chief internal examiner or Chairman/Convener will moderate it and finally make two sets of question paper, – continuing 8-10 shorts questions. He/she shall send both sets of such papers to the university and university will decide to give one of the sets to the students.

Ratio of marks in theory and practicals will be equal.

The pass percentage will be 50%.

Candidate will have to pass theory and practical examinations separately

A. Theory marks – 400

Paper I Basic Sciences related Otolaryngology - 100

Paper II Principles and Practices of Otolaryngology -100

Paper III Recent advances in Otolaryngology and Head Neck surgery-100

Paper IV General Surgical Principles & Head-Neck Surgery-100

B. Practical =400

One Long Case = 100

Two Short Cases 100 each = 200

Oral :

Viva (10 each with 4 examiners). = 40

Instruments. = 20

Specimens = 10

Bones (Temporal bone, Skull) = 10

Investigations(CT, MRI, Audiogram, BERA, Impedance, ENG, X-Ray)=20

c. All examiners shall be jointly responsible for the examination. In presence of the external examiners, the Chairman and the internal examiner shall make the necessary arrangements for conducting the Final examination. Not more than 4 students will be evaluated/examined per day in any Centre. For different College/Institution, separate examination Centre/Examiners may be arranged/ appointed for convenience and proper administration of the Final examination. While preparing the Final Results, Formative assessment of the students shall be taken into consideration and the results will be sent to the university under seal cover.

LOG BOOK

All India Institute of Medical Sciences, Kalyani

Department of

M.D. /M.S..... Course

Academic activities attended

Name: _____ Admission Year: _____

Date	Type of Activity Specify Seminar, Journal Club, Presentation, UG teaching	Particulars

Academic presentations made by the student

Name: _____ Admission Year: _____

Date	Topic	Type of Presentation Specify Seminar, Journal Club, Presentation, UG teaching etc.

Practical done by the candidate

Name: _____ Admission Year: _____

Date	Title of experiment	Remarks by teacher

POSTING SCHEDULE

S.NO.	DEPARTMENT/ SECTION	MONTH AND YEAR		Remarks	Signature of Section / Department In charge
		From	To		

GUIDELINES FOR APPOINTMENT OF EXAMINERS FOR MD/MS EXAMINATION:

- a) No person shall be appointed as an examiner in any subject unless he fulfils the minimum requirements for recognition as a post Graduate teacher as laid down by the Medical Council of India and has teaching experience of 8 (Eight) years as a Lecturer/Asst. Professor out of which he has not less than 5 (Five) Years teaching experience after obtaining Post Graduate degree. For external examiners, he should have minimum three years experience of examiner ship for Post Graduate diploma in the concerned subject. Out of internal examiners, one examiner shall be Professor and Head of Department or Head of Department.
- b) There shall be at least four examiners in each subject at an examination out of which at least 50% (Fifty percent) shall be external examiners. The external examiner who fulfils the condition laid down in clause – a) above shall ordinarily be invited from another recognized medical college, preferably from outside the State.
- c) An external examiner may be ordinarily appointed for not more than three years consecutively. Thereafter he may be reappointed after an interval of two years.
- d) The internal examiner in a subject shall not accept external examiner ship for a college from which external examiner is appointed in his subject.
- e) The same set of examiners shall ordinarily be responsible for the written, practical or part of examination.
- f) The Head of the department of the institution concerned shall ordinarily be one of the internal examiners and second internal examiner shall rotate after every two year.

PG APPRAISAL FORM

In the following sections, circle the number for the rating definition that best describes the doctor's performance.

Quality Of Clinical Works

1. Makes frequent errors; frequently clinical work that must be redone.
2. Produces clinical works that is possible , although quality needs improvement.
3. Quality of clinical work is good. Makes few mistakes.
4. Clinical work is very functional and aesthetic. It makes proud to work for this otolaryngologist.
5. Clinical work has a high degree of functionality and aesthetics on all work produced .I can enthusiastically recommend my otolaryngologist.

Comments: _____

Quality Of Work

1. Very slow. Seldom completes treatment in required appointment time.
2. Requires constant prompting from team in order to complete treatment within appointment time.
3. On time record is satisfactory. Most patients are seen on time.
4. Very good time manager. Frequently completes appointments ahead of schedule and has time to see emergency patients without making other late.

Comments: _____

Patient Relations

1. Frequently rude or blunt.
2. Only talks to patient about the doctor's own interest.
3. Talks to the patient too long, making the whole team run late.
4. Consistently very good with patients and seldom runs behind. Leaves patients with a good feeling towards the office.
5. Extremely skilled in dealing with people. Goes out of the way to be helpful and courteous, but never runs behind.

Comments: _____

Ability To Present Case

1. Consistently talks over the patient's head and fails to prioritize needed treatment.
2. Consistently talks over the patient's head but attempts to prioritize needed treatment.
3. Explains case in laymen's terms, but fails to prioritize needed treatment.
4. Explains case in laymen's terms, generally prioritizes needed treatment and sometimes emphasizes the most important next step.
5. Clearly explains case in laymen's terms, always prioritizes needed treatment and clearly identifies the most important next step.

Comments: _____

Ability To Motivate Case Acceptance

1. Fails to create any sense of urgency for needed treatment.
2. Creates an inappropriately strong sense of urgency for needed treatment by emphasizing unlikely consequences of refusing or postponing treatment. Patients feel pushed into treatment.
3. Attempts to create an appropriate sense of urgency but fails to explain consequences of refusing or postponing treatment. Patients do not understand why treatment is needed now.
4. Attempts to create an appropriate sense of urgency and explains the likely consequences of refusing or postponing treatment to most patients. Patients understand reason for urgency.
5. Effectively creates an appropriate sense of urgency and explains the likely consequences of refusing or postponing treatment to all patients. Patients are motivated to book treatment.

Comments: _____

Ability To Train Team Members

1. No training is provided. Team members must sink swim.
2. Minimum training is provided, but instructions are unclear. Feedback is negative or never offered.
3. Minimum training is provided and instructions are clear. Minimum constructive feedback is offered.
4. Adequate training is provided and instructions are clear, however feedback is negative or never offered.
5. Adequate training is provided, instructions are clear and feedback is constructive.

Comments: _____

Team Relations

1. Poor attitude. Unfriendly and uncooperative in contacts with team members.
2. Usually cooperative. May occasionally have problems in this area.
3. Works well with team. Gives constructive directions and tacks direction from team as well.
4. Alert to needs of team members and is willing to provide assistance. Doctor is quick to respond in a constructive manner.
5. Goes out of the way to be cooperative, gives constructive directions and provides assistance. Works exceptionally well with team.

Comments: _____

Ability To Show Appreciation

1. Never expresses appreciation of team or individuals.
2. Expresses appreciation to the same favored individuals, while ignoring the contributions of others.
3. Offers words of appreciation after the team has begged for them. They come across as too little, too late.
4. Occasionally remember to offer appreciation in a timely fashion.
5. Offering appreciation is a top priority with our otolaryngologist. He / She looks for opportunities to give us encouragement.

Comments: _____

Willingness To Support The Team Bonus System

1. Uncommitted and unsupportive of producing at bonus levels.
2. Gives lip service to bonus system, but allows untouchable team members to restrict bonus opportunities.
3. Committed to making the bonus system work, but inconsistent in personal support, i.e. under diagnoses, schedules time out of the office at the last minute or fails to attend morning huddles.
4. Committed to making the bonus system work for now, but unwilling to hire team members (including hygienists and doctors) who can help take this practice to the next level.
5. Committed to making the bonus system work by consistently improving personal performance, encouraging team improvements and facilitating clinical and business processes that influence the team's success in reaching their goal. Always looking for ways to expend the practice production to ensure continued raises in the bonus.

Comments: _____

Willingness To Lead

1. Avoids leadership role and is disengaged from the team.
2. Dictates every decision and discourages input from the team.
3. Easily swayed by uncommitted team members and ends up doing all of the work himself/herself.
4. Attempts to lead the team and invite their input; however when an issue incites a confrontation he/she avoids it and never resolves it.
5. Inspires the team to follow their lead and actively solicits the team's input. Appropriately delegates work. Resolves confrontations in a way that respects human dignity and keeps the practice on course to reach its goals.

Comments:-

Attendance and Punctuality:

1. Undependable
2. Often late or absent
3. Average
4. Seldom late or absent
5. Very dependable

Comments:_____

Ability to accept change for practice improvement:

1. Flatly refuses to listen to all suggestions for improving the practice.
2. Accepts very change that blows on the wind.
3. Listens to recommendations but listens to ideas and tries some of them.
4. Afraid of change generally but listens to ideas and tries some of them.
5. Recognizes a need for change and can identify appropriate options for your unique practice.
Embraces and implements change in an appropriate time frame.

Comments:_____

Ability to follow through on change:

1. Once changes are accepted nothing ever gets done.
2. Goals are set but plans for accomplishments are not met.
3. Goals are set, plans are met but target dates are not set.
4. Goals are set, plans are met, target dates are set but evaluations of results are not done.
5. Goals are set, plans are met, target dates are set and results are evaluated for effectiveness.

Comments:_____

Ability to ensure practice growth:

1. Drives patients away from the practice.
2. Drives employees away from the practice.
3. Content with practice and income level. Wants to maintain status quo.
4. Sees the need for practice growth and open to suggestions for it.
5. Actively seeks ways to growth the practice in order to annually increase personal team and practice income.

Comments: _____

Business Results:

1. Often feels to finish business project that they start.
2. Stays busy doing activities but seldom delivers the results.
3. Consistently delivers the results but does not care how they get them.
4. Focus their efforts on delivering results not just staying busy.
5. Consistently delivers results in a way that inspires trust.

Comments: _____

Intent:

1. Doesn't think about concerns of the practice outside of the challenges in the his/her own job area.
2. Operations from a belief in scarcity. Doctors beliefs there is a limited amount of opportunities and credit, so he/she actively competes for his/her share.
3. Operates in a way that makes people question if he/she has the best interest of others in mind.
4. Operates in a way that clearly demonstrates he/she has the best interests of others in mind.
5. Operates from a belief in abundances. He/she beliefs there are enough opportunities and credit for everyone to share. He/she seeks win solutions for everyone.

Comments: _____

Integrity:

1. Never acknowledges he/she is wrong.
2. Justifies misrepresenting people and situations.
3. Sometimes there is not a match between what he/she says does because he/she lacks the courage to stand up for what he/she believes.
4. Clear on his/her values and stand up for them.
5. Thoroughly honest in all interactions. Admits mistakes and consistently honours commitments that he/she makes to himself/herself and others.

Comments: _____

Constructive Feedback:

List three essential things that the doctor is doing well:

1. _____
2. _____
3. _____

List three essential things in need of improvement:

1. _____
2. _____
3. _____