

# **GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR DIPLOMA IN OTORHINOLARYNOLOGY (DLO)**

## **Preamble:**

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

A postgraduate specialist having undergone the prescribed training should be able to recognize the health needs of the community, should be competent to handle effectively the medical problems particularly related to ENT and should be aware of the recent advances in this speciality. The student should acquire the basic knowledge, attitude and skills in teaching of medical / paramedical students. She/he is also expected to know the principles of research methodology and modes of consulting library including internet use.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by various subject-content specialists. The Reconciliation Board of the Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of “domains of learning” under the heading “competencies”.

## ***SUBJECT SPECIFIC LEARNING OBJECTIVES***

**At the end of Diploma training, the student should be able to:**

1. Practice the specialty of Otorhinolaryngology ethically keeping in mind the requirement of the patient, his community and people at large.
2. Demonstrate sufficient understanding of basic sciences related to Otorhinolaryngology and be able to integrate such knowledge in his Clinical practice.
3. Diagnose and manage majority of conditions in Otorhinolaryngology (clinically and with the help of relevant investigations)
4. Plan and advise measures for the promotive, preventive and rehabilitative aspects of health and diseases in the specialty of Otorhinolaryngology.
5. Play the assigned role in the implementation of National Health Programs
6. Demonstrate competence in basic concepts of research methodology and writing thesis and research papers.

7. Develop good learning, communication and teaching skills.

## ***SUBJECT SPECIFIC OBJECTIVES***

### **The objectives of the programme are:**

- a) **Theoretical knowledge:** A student should have fair knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology) as applied to ENT and be able to integrate such knowledge in his clinical practice. He/she should acquire in-depth knowledge of his subject including recent advances. He should be fully conversant with the bedside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.
- b) **Clinical / Practical skills:** A student should be adept at good history taking, physical examination, providing basic life support and advanced cardiac life support, common procedures like FNAC, Biopsy, aspiration from serous cavities, lumbar puncture etc. He/she should be able to choose the required investigations to enhance the attitude, communicative skills, including dealing with patients the relatives with the required empathy, adapt to changing trends in education, learning methods and evolving new diagnostic and therapeutic techniques in the subject of ENT.
- c) **Research:** He/she should know the basic concepts of research methodology, plan a research project and should know how to use library facilities. Basic knowledge of statistics is also required. Knowledge about use of internet resources is required.
- d) **Teaching:** Should learn the basic methodology of teaching and assessment and develop competence in teaching medical/paramedical students and there assessment.

## ***SUBJECT SPECIFIC COMPETENCIES***

### **A. Cognitive Domain**

**At the end of training, the post graduate student should be able to demonstrate ability to recall, implement and practically apply knowledge gained during training period. This would include the following:**

- Anatomy and physiology of ear, nose and throat, trachea and esophagus.
- Physiological consideration of pressure effects on the ear and sinuses in deep water diving
- The generation and reception of speech
- Radiographic anatomy of the ear, nose, throat and imaging
- Bacteriology in relation to Otorhinolaryngology

- Allergy and rhinitis
- Haematology in relation to Otolaryngology
- Anaesthesia for Otolaryngology
- Pharmacology of drugs used in ENT
- Electrolyte, fluid balance/shock Conditions
- Use of teaching aids
- Routine blood, urine testing
- Preparation of slides
- Facial nerve stimulation test
- Audiometric tests like pure tone Audiometry, Impedance
- Audiometry
- Evoked response audiometry and otoacoustic emissions

**Ear:**

- The physical and functional examination of the ear
- The functional and physical examination of the vestibular system
- Tinnitus
- Affections of external ear
- Traumatic conductive deafness
- Acute inflammation of the middle ear cleft
- Non-suppurative otitis media
- Chronic suppurative otitis media
- Management of chronic suppurative otitis media
- Complications of infections of middle ear
- Diseases of the otic capsule - otosclerosis
- The deaf child
- Ototoxicity
- Presbycusis
- Diagnosis and management of sudden and fluctuant sensorineural hearing loss
- Meniere's disease
- Neurologic aspects of vertigo
- Facial paralysis
- Rehabilitation of adults with acquired Hearing loss-Hearing aids

**Nose:**

- Examination of the nose
- Conditions of the external nose
- Injuries of the facial skeleton
- The nasal septum
- Foreign bodies in the nose, rhinolith

- Epistaxis
- Acute chronic inflammations of the nasal cavities
- Vasomotor rhinitis - allergic and non-allergic
- Nasal polyposis
- Acute sinusitis
- Chronic sinusitis
- Nasal allergy/fungal allergic sinusitis
- Complications of acute and chronic sinusitis
- Tumors of nose and sinuses
- Functional endoscopic sinus surgery (FESS)

**Throat:**

- Methods of examination of the mouth and pharynx
- Diseases of the mouth
- Diseases of the salivary glands
- Pharyngeal lesions associated with general diseases
- Diseases of the tonsils and adenoids (excluding neoplasms)
- Oesophageal conditions in the practice of ear, nose and throat surgery
- Methods of examining and larynx and tracheobronchial tree
- Congenital diseases of the larynx
- Laryngeal disorders in singers and other voice users
- Intubation of the larynx, laryngotomy and tracheostomy
- Lower respiratory conditions in Otolaryngology
- Micro laryngeal surgery

**Miscellaneous (head and neck):**

a)

- Functional anatomy of cerebellum and brainstem
- Cranial nerves
- Raised intracranial tension - causes, diagnosis, management with particular reference to otitis hydrocephalus
- Head injuries and I.C. Haemorrhage

b)

- Osteology: skull, mandible cervical and thoracic vertebral sternum
- Cervical fascia, facial spaces in neck, retro-pharyngeal and parapharyngeal abscesses
- Anatomy and physiology of thyroid gland, goitre, diseases of the thyroid and carcinoma of thyroid

**General:**

- Physiology of circulation, regulation of blood pressure, reactions of body to haemorrhage, pathophysiology of shock, fluid balance, blood transfusion and its hazards, fluid replacement therapy, burns.

**Drugs used in Otorhinolaryngology:**

- Antihistaminics
- Nasal vaso-constrictors
- Local anaesthetics
- Corticosteroids
- Cytotoxic agents
- Antibiotics
- Radioactive isotopes
- Antifungal agents

**Additional topics**

- The ears and nasal sinuses in the aerospace environment
- Principles of chemotherapy in head and neck cancer
- Free-field Audiometry, specialized tests of hearing including SISI (Short increment sensitivity index test), Tone decay, ABLB (Alternate Binaural loudness balance test), Speech discrimination score etc.
- Vestibular tests like caloric testing (water and air) stepping test etc

**Ear**

- Repair of deformities of the external ear.
- Congenital conditions of the middle ear cleft
- Tumors of the middle ear cleft and temporal bone
- Diseases of the otic capsule-other diseases
- Traumatic lesions of the inner ear
- Inflammatory lesions of the vestibular and auditory nerve
- Acoustic neuroma
- Vascular lesions of the inner ear
- The cochlear Implants
- Nystagmus
- Basics of Skull base/Neurologic surgery

**Nose**

- Cosmetic surgery of the nose
- Congenital diseases of the nose
- Abnormalities of smell

- Non-healing granuloma of the nose
- Facial pains
- Surgery of the pterygo palatine fossa
- LASER Surgery

### **Throat**

- Tumors of the pharynx
- Hypopharyngeal diverticulum (Pharyngeal Pouch)
- Neurological affections of larynx and pharynx
- Disorders of speech
- Cervical node dissection
- Skin grafts in Otolaryngology
- Thyroplasty

### **Miscellaneous (Head and Neck)-**

a)

- Pituitary gland, anatomy, physiology hypo- and hyper- pituitarism, new growths
- Intracranial venous sinuses and their affections

b)

- Anatomy of mediastinum, large blood vessels in neck, thoracic duct development of major cervical and thoracic blood vessels.
- Pleura, plural cavity, broncho-pulmonary segments and their clinical importance
- Facial plastic surgery
- Head and neck reconstructive surgery

### **B. Affective Domain**

1. The student will show integrity, accountability, respect, compassion and dedicated patient care. The student will demonstrate a commitment to excellence and continuous professional development.
2. The student should demonstrate a commitment to ethical principles relating to providing patient care, confidentiality of patient information and informed consent.
3. The student should show sensitivity and responsiveness to patients' culture, age, gender and disabilities.
4. The student should be able to choose the required investigations to enhance the attitude, communicative skills, including dealing with patient's relatives with the required empathy, adapt to changing trends in education, learning methods and evolving new diagnostic and therapeutic techniques in the subject of ENT.

## C. Psychomotor Domain

**By the end of the training, a student should be able to demonstrate his skills in:**

- Taking a good history and demonstrating good examination techniques.
- arrive at a logical working diagnosis, differential diagnosis after clinical examination and order appropriate investigations keeping in mind their relevance (need based) and thereby provide appropriate care that is ethical, compassionate, responsive and cost effective and in conformation with statutory rules.
- Should be able to perform and demonstrate the practical skills in the field of ENT including the following:
  - Examination of the ear, nose and throat oral cavity examination
  - Clinico-physiological examination and evaluation of the audio-vestibulo neurological system
  - Examination of the larynx and the throat including flexible endoscopy, stroboscopy, voice analysis and the clinico-physiological examination of the speech
  - Examination of the otological and audiological system including Tuning fork testing, audiological evaluation, micro and otoendoscopy
  - Clinical and physiological evaluation of the nose and paranasal sinuses including nasal endoscopy and olfactory evaluation
  - Examination of the neck and its structures
- Should demonstrate and perform various therapeutic skills related to the speciality such as :
  - Tracheostomy
  - Anterior/ posterior nasal packing
  - Ear Packing and Synrunding
  - Foreign body removal from air nose and throat
  - Airway management including basic life support skills, Cardiopulmonary resuscitation, intubation, homeostasis maintenance, IV alimentation and fluid, electrolyte maintenance and principles of blood transfusion alimentation including Nasogastric feeding, gastrostomy
  - Wound suturing, dressings and care of the wounds
  - Basic principles of rehabilitation
  - common procedures like FNAC, biopsy, aspiration from serous cavities, lumber puncture etc
- Should understand principles of and interpret X-rays/CT/MRI, audiograms, ENG (Electronystagmography), BERA (Brain stem evoked response audiometry), OAE (otoacoustic emission testing), ultrasonographic abnormalities and other diagnostic procedures in relation to the speciality

- Should have observed/performed under supervision the various surgical procedures in relation to the speciality

## *Syllabus*

### **Course Contents:**

1. Anatomy and Physiology of ear, nose and throat, trachea and esophagus.
2. The generation and reception of speech
3. Radiographic anatomy of the ear, nose, throat and imaging.
4. Bacteriology in relation to Otorhinolaryngology
5. Allergy and rhinitis
6. Haematology in relation to Otolaryngology
7. Anaesthesia for Otolaryngology
8. Pharmacology of drugs used in ENT
9. Electrolyte, fluid balance/shock conditions
10. Use of teaching aids
11. Routine blood, urine testing
12. Preparation of slides
13. Facial nerve stimulation test
14. Audiometric tests like pure tone Audiometry, Impedance Audiometry, Free field Audiometry, Specialized tests of hearing including SISI, Tone decay, ABLB, Speech discrimination score etc.
15. Vestibular tests like caloric testing (Water and Air) stopping test, Fukuda's test,
16. Evoked response audiometry.

### **Ear:**

1. The physical and functional examination of the ear
2. The functional and physical examination of the vestibular system.
3. Tinnitus
4. Affections of external ear
5. Repair of deformities of the external ear.
6. Congenital conditions of the middle ear cleft
7. Traumatic conductive deafness
8. Acute inflammation of the middle ear cleft
9. Non-suppurative otitis media
10. Chronic suppurative otitis media
11. Management of chronic suppurative otitis media
12. Complications of infections of middle ear.
13. Tumors of the middle ear cleft and temporal bone
14. Diseases of the otic capsule-otosclerosis
15. Diseases of the otic capsule-other diseases

16. The deaf child
17. Acoustic neuroma
18. Ototoxicity
19. Presbycusis
20. Diagnosis and management of sudden and fluctuant sensorineural hearing loss
21. Meniere's disease
22. Neurologic aspects of vertigo
23. Facial paralysis
24. Rehabilitation of adults with acquired Hearing loss-Hearing aids
25. The cochlear Implants
26. Nystagmus
27. Otoacoustic emissions

**Nose:**

1. Examination of the nose
2. Conditions of the external nose
3. Injuries of the facial skeleton
4. Congenital diseases of the nose
5. The nasal septum
6. Foreign bodies in the nose, rhinolith
7. Epistaxis
8. Acute chronic inflammations of the nasal cavities
9. Vasomotor rhinitis-allergic and non-allergic
10. Nasal polyposis
11. Abnormalities of smell
12. Acute sinusitis
13. Chronic sinusitis
14. Nasal Allergy/Fungal allergic sinusitis
15. Complications of acute and chronic sinusitis
16. Tumors of nose and sinuses
17. Facial pains
18. Trans-ethmoidal hypophysectomy
19. FESS (Functional endoscopic sinus surgery)

**Throat:**

1. Methods of examination of the mouth and pharynx
2. Diseases of the mouth
3. Diseases of the salivary glands
4. Pharyngeal lesions associated with general diseases
5. Diseases of the tonsils and adenoids (excluding neoplasms)
6. Tumors of the pharynx

7. Hypopharyngeal diverticulum (Pharyngeal Pouch)
8. Methods of examining and larynx and tracheobronchial tree
9. Congenital diseases of the larynx
10. Laryngeal disorders in singers and other voice users
11. Neurological affections of larynx and pharynx
12. Intubation of the larynx, laryngotomy and tracheostomy
13. Cervical node dissection
14. Skin grafts in Otolaryngology and reconstructive methods including regional and distant flaps for repair of defects after excision of tumors or trauma.
15. Micro laryngeal surgery/thyroplasty

**Miscellaneous and head and neck:**

1. Cranial nerves
2. Raised intracranial tension-causes, diagnosis, management with particular reference to otitis hydrocephalus
3. Head injuries and I.C. Haemorrhage
4. Pituitary gland, anatomy, physiology hypo - and hyper - pituitarism, new growths.
5. Intracranial venous sinuses and their affections
5. Osteology: skull, mandible cervical and thoracic vertebral sternum
6. Cervical fascia, facial spaces in neck, retro-pharyngeal and parapharyngeal Abscesses
7. Anatomy and physiology of thyroid gland, goitre, diseases of the thyroid and carcinoma of thyroid
8. Large blood vessels in neck, thoracic duct development of major cervical and thoracic blood vessels.
9. Head and neck reconstructive surgery.

**Drugs used in ENT:**

1. Antibiotics Antihistaminic
2. Nasal vasoconstrictors
3. Local anaesthetics
4. Corticosteroids
5. Cyto-toxic agents
6. Antibiotics
7. Radioactive isotopes
8. Antifungal agents
9. Vasopressive and other agents used in shock like states.

**General:**

1. Physiology of circulation, regulation of blood pressure, reactions of body to haemorrhage, patho-physiology of shock, fluid balance, blood transfusion and its hazards, fluid replacement therapy, burns.
2. Agents used in shock like states.

### **Desirable**

1. The ears and nasal sinuses in the aerospace environment
2. Physiological consideration of pressure effects on the ear and sinuses in deep water diving
3. The principles of cancer immunology with particular reference to head and neck cancer
4. Principles of chemotherapy in head and neck cancer
5. Recording of nystagmus by ENG and its interpretation.

### **Ear:**

1. Traumatic lesions of the inner ear
2. Inflammatory lesions of the vestibular and auditory nerve
3. Vascular lesions of the inner ear
4. Electronystagmography
5. Skull base/Neurologic surgery

### **Nose:**

1. Cosmetic surgery of the nose
2. Non-healing granuloma of the nose
3. Surgery of the pterygopalatine fossa.
4. LASER Surgery

### **Throat:**

1. Oesophageal conditions in the practice of ear, nose and throat surgery
2. Disorders of speech
3. Lower respiratory conditions in Otolaryngology

### **Miscellaneous and head and neck**

1. Functional Anatomy of cerebellum and brainstem
2. Anatomy of mediastinum
3. Pleura, plural cavity, broncho-pulmonary segments and their clinical importance
4. Facial plastic surgery

## ***TEACHING AND LEARNING METHODS***

### **Teaching methodology**

Although didactic lectures are of least importance, such lectures may be taken by senior faculty on newer areas in which expertise is available. Emphasis may be made on presenting seminars, journal clubs, symposia, reviews and guest lectures and they should get priority for theoretical knowledge. Bedside teaching, grand rounds, interactive group discussions and clinical demonstrations, CPCs should be the hallmark of clinical/practical learning. Student should have hands-on training in performing various procedures in ENT on Simulated models and cadavers before practicing on the patient, albeit under supervision and develop ability to interpret various tests/investigations. Exposure to newer specialized diagnostic/therapeutic procedures concerning his ENT should be given. During the course, the students are expected to participate in scientific meetings, paper presentations and hands on workshops to enhance clinical exposure.

## 1. Rotation:

### Clinical postings

#### First year for general exposure

Radiology and Radiotherapy	1 month
Neurology and Neurosurgery Specialty postings	1 month
Pediatric ENT in rotation	2 months
For 4 months	
Anaesthesia	1 month
ENT	7 months
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Total	12 months
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#### Second year

ENT	12 months
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ENT including upper gastrointestinal and upper respiratory tract and common ENT emergencies such as epistaxis, F.B. infections of mucosal origin etc.

Their posting will be mostly in OPD, ward and in the emergency situation with less posting in the Main OT as the thrust may not be on training them in the entire operative procedures. Cadaveric training may be given to them similarly and as per their requirements.

## 2. Teaching Methodology

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

- Journal Club
- Paper presentation/discussion

- Seminar: Lecture/discussion: Lectures on newer topics by Faculty, in place of seminar/as per need.
- The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
- **Surgico-pathological Conference:** Special emphasis is to be made on the surgical pathology and the radiological aspects of the case in the pathology department. Such exercises help the ENT/Pathology/Radiology Residents.
- **Combined Round/Grand Round:** These exercises are to be done for the hospital once/week or twice/month involving presentation of unusual or difficult patients. Presentations of cases are to be done in Clinical Combined Round and a clinical series/research data on clinical materials for benefit of all clinicians/Pathologists/other related disciplines once in a week or fortnightly in the Grand Round.
- **Community camps:** For rural exposure and also for experience in preventive aspects in rural situation/Hospital/School, Patient care camps are to be arranged 2-3/year, involving PG students/Junior faculty.
- **Emergency situation:** Casualty duty to be arranged by rotation among the PGs with a faculty cover daily by rotation.
- A postgraduate student of a postgraduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
- Department should encourage e-learning activities.

#### **Afternoon Speciality clinics:**

- **Vertigo Clinic:** 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.
- **Tumour clinic/Head-neck Cancer Clinic:** 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 Resident and discussed about their management by the ENT as well as Radiotherapy Consultants and treatment decision, made.
- **Rhinology Clinic:** For patients with sinus diseases and nasal deformity for rhinoplasty - presented and discussed. Decision for FESS/Rhinoplasty or only other treatment taken.

- **Otology Clinic:** 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.
- **Clinical training for patient care management and for bedside manners:**

Bedside patient care discussions are to be made daily for half to one hour's duration during ward round with faculty and 1-2 hours in the evening by senior resident/Faculty on emergency duty. Faculty should take Teaching Rounds by Rotation
- **Death Cases:**

The records of such cases are presented by 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.
- **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.

The student should compulsorily undergo a basic life support course where the skills of endotracheal intubations and tracheotomy are reinforced. This may be assisted by the use of dummies and mannequins.
- **Clinical interaction with audiologists/speech therapist:** Clinical interaction with Audiologist/speech therapist pertaining to management of the patients with audiological/speech problems are to be made/discussion arranged. Audiologic methods and therapy strategies are to be made known to Resident doctors.
- **General lectures:**

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.

**During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of surgical skills laboratories in medical colleges is mandatory.**

## **ASSESSMENT**

### **FORMATIVE ASSESSMENT, during the training programme**

**Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.**

#### **General Principles**

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and practical/clinical examination.

**Quarterly assessment during the Diploma training should be based on:**

- 1. Journal based / recent advances learning**
- 2. Patient based /Laboratory or Skill based learning**
- 3. Self directed learning and teaching**
- 4. Departmental and interdepartmental learning activity**
- 5. External and Outreach Activities / CMEs**

**The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I)**

- Maintenance of Log book including evaluation reports of seminars, journal clubs, case presentations etc. which should be evaluated at the time of presentation and entered in Logbook. Log books shall be checked and assessed periodically by the faculty members imparting the training.
- Use of simulators for developing clinical and surgical skills would form a part of formative evaluation.
- The post graduate student should be routinely evaluated for subject knowledge, professional competence, skill demonstration, communicational skills and his attitude to new learning skills using the conventional method of evaluation as well as Objective Structured Clinical Examination, wherever feasible.

### **SUMMATIVE ASSESSMENT, at the end of the training programme**

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

**The Examination consists of two parts:**

**1. Theory**

The examinations shall be organised on the basis of 'Grading' or 'Marking system' to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately shall be mandatory for passing examination as a whole. The examination for Diploma shall be held at the end of 2<sup>nd</sup> academic year. An academic term shall mean six month's training period.

There shall be three theory papers:

**Paper I:** Basic Sciences in relation to ENT (at the end of first year)

**Paper II:** Oto-rhinolaryngology including Audiology and Neuro-otology

**Paper III:** Oto-rhinolaryngology including Head and Neck Oncology and Endoscopy

**2. Practical/Clinical and Oral Examination:**

**Practical Examination consists of:**

Clinical Examination - 2-3 clinical cases, imaging and its techniques, instruments, clinical exercise

**Oral /Viva-voce Examination**

Oral examination shall be comprehensive enough to test the post graduate student's overall knowledge of the subject.

**Recommended Reading:**

**Books (latest edition)**

- Scott-Brown's Otorhinolaryngology and Head and Neck Surgery
- Cummings Otolaryngology - Head and Neck Surgery
- Otolaryngology, Otology & Neurotology by Paparella & Micheal
- Glasscock-Shambaugh's Surgery of the Ear
- Essentials of Functional Sinus Surgery by Heinz Stammberger MD
- Color Atlas of Head & Neck Surgery by Jatin P Shah
- Handbook of Clinical Audiology by Jack Katz
- Stell & Maran's Textbook of Head and Neck Surgery and Oncology

**Journals**

03-05 international Journals and 02 national (all indexed) journals

**Postgraduate Students Appraisal Form  
Pre / Para /Clinical Disciplines**

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM.....TO.....

Sr. No.	PARTICULARS	Not Satisfactory			Satisfactory			More Than Satisfactory			Remarks
		1	2	3	4	5	6	7	8	9	
1.	Journal based / recent advances learning										
2.	Patient based /Laboratory or Skill based learning										
3.	Self directed learning and teaching										
4.	Departmental and interdepartmental learning activity										
5.	External and Outreach Activities / CMEs										
6.	Thesis / Research work										
7.	Log Book Maintenance										

Publications

Yes/ No

Remarks\* \_\_\_\_\_

\*REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.

SIGNATURE OF ASSESSEE

SIGNATURE OF CONSULTANT

SIGNATURE OF HOD