



YENEPOYA

(DEEMED TO BE UNIVERSITY)

Recognized under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

YENEPOYA (DEEMED TO BE UNIVERSITY)

Deralakatte, Mangaluru -575018

REGULATIONS AND CURRICULUM GOVERNING

POSTGRADUATE PROGRAM (MS) IN

OTORHINOLARYNGOLOGY (ENT)

(REVISED CURRICULUM – AMENDED UP TO 2019)

ATTESTED

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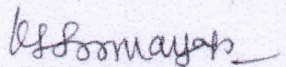
NOTIFICATION - 34-ACM/2019 dtd. 20.02.2019

Sub:- Implementation of Competency Based Medical Education PG Curriculum
Ref. : Resolution of the Academic Council at its 34th Meeting held on 08.02.2019 vide
Agenda 33

The Academic Council at its 34th Meeting held on 08.02.2019 and subsequently the 45th meetings of Board of Management held on 09.02.2019 have accepted the proposal for implementation of Competency Based Medical Education (CBME) for the PG Curricula of the following programs as per the MCI Norms.

1. MD in Pathology
2. MD in General Medicine
3. MD in Anaesthesiology
4. MD in Paediatrics
5. MD in Respiratory Medicine
6. MD in Radio-diagnosis
7. MD in Anatomy
8. MD in Physiology
9. MD in Biochemistry
10. MD in Microbiology
11. MD in Pharmacology
12. MD in Forensic Medicine
13. MD in Psychiatry
14. MD in Dermatology
15. MD in Community Medicine
16. MS in General Surgery
17. MS in OBG
18. MS in Otorhinolaryngology
19. MS in Ophthalmology
20. MS in Orthopaedics

This revised curriculum shall come into effect from the academic year 2019-2020 onwards.


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GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR MS IN OTORHINOLARYGOLOGY

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.

The purpose of MS Otorhinolaryngology is to standardize Otorhinolaryngology teaching at Post Graduate level throughout the country so that it will benefit in achieving uniformity in undergraduate teaching as well and resultantly creating competent ENT Surgeons with appropriate expertise.

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 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 postgraduate training the student should be able to:

1. Practice his specialty ethically keeping in mind the requirement of the patient, community and people at large.
2. Demonstrate sufficient understanding of basic sciences related to his specialty and be able to integrate such knowledge in his clinical practice.
3. Diagnose and manage majority of conditions in his specialty (clinically and with the help of relevant investigations)
4. Plan and advice measures for the promotive, preventive, curative and rehabilitative aspects of health and diseases in the specialty of ENT.
5. Should be able to demonstrate his cognitive skills in the field of ENT and its ancillary branches during the formative and summative evaluation processes.
6. Play the assigned role in the implementation of National Health Programs
7. Demonstrate competence in basic concepts of research methodology and writing thesis and research papers.
8. Develop good learning, communication and teaching skills.

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9. Demonstrate sufficient understanding of basic sciences and the clinical applications related to the specialty to be able to integrate this knowledge into clinical practice. Acquire in-depth knowledge in the subject including recent advances.
 10. Demonstrate that he is fully conversant with the latest diagnostics & therapeutics available.

SUBJECT SPECIFIC LEARNING OBJECTIVES

1. 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. She/He should acquire in-depth knowledge of his subject including recent advances. She/He should be fully conversant with the bedside procedures (diagnostic and therapeutic) and having knowledge of latest diagnostics and therapeutics available.

2. 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. She/he should be able to choose the required investigations appropriate for patient care, develop the attitude, communication 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.

3. Research:

She/He should know the basic concepts of research methodology, plan a research project, plan and write a thesis and should know how to use library facilities. Basic knowledge of statistics is also required. Knowledge about use of internet resources is required.

4. Teaching:

The student should learn the basic methodology of teaching and assessment and develop competence in teaching medical/paramedical students and their assessment.

SUBJECT SPECIFIC COMPETENCIES

A. Cognitive Domain

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

Basic Sciences related to Otolaryngology

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- Physiology- Mechanism of perception of smell and taste, mechanism of breathing and voice production, lacrimation, deglutition and salivation. Functional tests of the nose and paranasal sinuses, mechanism of cough and sneezing.
 - Physics of sound, theories of hearing, mechanism of perception of sound and speech production, physiology of equilibrium and 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 and oesophagus - Histology of mucous membranes, internal ear and other associated organs and structures, nose, PNS, Nasopharynx, 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 glands, Head and Neck and 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 bronchi, lungs, pleurae, oesophagus and the mediastinum.
 - Anatomy of all cranial nerves with their functions.

Principles and Practices of Otolaryngology, Audiology and Speech Pathology

- Clinical Methodology as applied to ORL HN diseases in adult and 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 tumors of the nose, and paranasal sinuses.
- Examination of the ear, deafness and allied diseases, complications of diseases of the ear. Injuries, tumors, 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 vibrotactile aids.
 - Surgical pathology of Otolaryngology and Head Neck region.
 - Basic knowledge of anaesthesia as related to ENT.
 - Examination of diseases of children (Paediatric ORL) in connection with throat and larynx. Neurological and vascular disturbances. Congenital and neonatal stridor.
 - Pathology of various diseases of the larynx and throat, trachea bronchial tree and their causative organisms.

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- Indications and various techniques of direct laryngoscopy, nasal endoscopy. Bronchoscopy and oesophagoscopy, including microlaryngoscopic procedures.
 - Reading of radiograms, scans, audiograms, nystagmograms and tympanograms in connection with ENT diseases/disorders.
 - Special apparatus for the diagnosis and treatment of the diseases of ear, nose and throat including audiometer, BERA, Speech analyser etc.

Recent advances in Otolaryngology and Head Neck surgery

- Recent developments in the diagnosis, pathogenesis and treatment of the ENT diseases
- The knowledge of the frontiers of the oto-laryngology and lateral skull base surgery
- Rhinoplasty, endoscopic sinus surgery, and anterior cranial fossa surgery
- Knowledge of LASERS and fibre optics
- Other methods of managing Hearing loss
- Implantable hearing aids cochlear implants
- Phonosurgery
- Etiology and Managements of sleep apnoea/snoring
- Hypophysectomy and optic nerve decompressions
- Immunotherapy and modalities of the gene therapy
- Newer techniques for Radiotherapy including, use of gamma knife for treatment of Intracranial tumors and other malignancy
- Chemotherapy of cancer

General Surgical Principles and Head-Neck Surgery

- General Surgery, Head and Neck oncology, and Medicine as applicable to the ENT disorders/diseases. Surgery of congenital deformities of nose, ear (Pinna) and trachea/oesophagus etc.
- Radiology, Imaging – computed tomography and magnetic resonance imaging, (MRI) and intervention radiology and angiography as related to ENT
- 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
- General Principles of faciomaxillary traumatology and neck injury
- Plastic Surgery as applicable to Otolaryngology

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 Syringing
 - 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, lumbar puncture etc.
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- Should understand principles of and interpret X-rays/CT/MRI, audiograms, ENG, BERA, OAE, 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

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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. Functional endoscopic sinus surgery (FESS)

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
6. Osteology: skull, mandible cervical and thoracic vertebral sternum
7. Cervical fascia, facial spaces in neck, retro-pharyngeal and parapharyngeal Abscesses
8. Anatomy and physiology of thyroid gland, goitre, diseases of the thyroid and carcinoma of thyroid
9. Large blood vessels in neck, thoracic duct development of major cervical and thoracic blood vessels.
10. 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

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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

Didactic lectures are of least importance; small group discussion such as seminars, journal clubs, symposia, reviews and guest lectures should get priority for theoretical knowledge. Bedside teaching, grand rounds, structured interactive group discussions and clinical demonstrations should be the hallmark of clinical/practical learning with appropriate emphasis on e-learning. Student should have hand-on training in performing various

procedures and ability to interpret various tests/investigations. Exposure to newer specialized diagnostic/therapeutic procedures concerning her/his subject should be given. Self-learning tools like assignments and case-based learning may be promoted. Exposure to newer specialized diagnostic/therapeutic procedures concerning ENT should be given.

A candidate pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below.

1. Rotations:

- A major portion of posting should be in ENT Department. It should include in-patients, out-patients, ICU, trauma, emergency room, specialty clinics including Vertigo Clinic, Rhinology Clinic, Otology Clinic, Cancer Clinic, Cadaveric dissection Lab, Audiology and speech therapy.
- Inter-unit rotation in the department should be done for a period of up to one year.
- Rotation in appropriate related subspecialties for a total period not exceeding 06 months.

2. Clinical meetings:

There should be intra- and inter- departmental meetings for discussing the uncommon /interesting cases involving multiple departments.

3. Lectures: Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.

a) Lectures: Lectures recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:

- 1) Bio-statistics
- 2) Use of library
- 3) Research methods
- 4) Medical code of conduct and medical ethics
- 5) National health and Diseases control programmes

6) Communication skills etc.

These topics may preferably taken up in the first few weeks of the 1st year.

4. **Journal Club:** Recommended to be held once in a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 journal presentations in three years. The presentations would be evaluated using check lists. A time table with names of the student and the moderator shall be announced in advance.
5. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check list. A timetable for the subject with names of the student and the moderator should be announced in advance. The seminars are structured and divided into smaller for better understanding of the topic by the presenter. First year residents are encouraged to make use of white/black board for drawing diagrams on the spot during anatomy classes.

6. Cadaveric head and neck and temporal bone dissection:

A minimum of 1 wet bone and 4 dry temporal bone dissection needs to be done by every PG Resident. The exercises include:

- Cortical mastoidectomy
- MRM and Radical Mastoidectomy
- Facial nerve decompression
- Posterior tympanotomy
- Labrinthectomy
- Endolymphatic sac decompression
- Stapedotomy
- Extended procedures wherever possible

Cadaveric dissection Lab: 2 units of cadaveric temporal lab are present in the department. For head and neck and sinus cadaveric dissections, the resident is expected to visit the anatomy department for learning surgical anatomy by dissection as well and for learning different operative procedures under faculty supervision and independently on a regular basis before/during exposure of particular batch of students to real operative procedures in patients.

7. **Ward Rounds:** Ward rounds may be service or teaching rounds.

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- a) **Service Rounds:** Postgraduate and Interns should do twice every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - b) **Teaching Rounds:** Every unit shall have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students. Case presentation to be done in the ward
Entries (a) and (b) should be made in the Log book.
8. **Clinico-pathological Conference:** Recommended at least once in three months for all post graduate students. Presentation may be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.
 9. **Clinical cases:** (minimum of 48 cases in a year) to be presented by the residents on rotation, which will be assessed by using Check lists
 10. **Inter-departmental Meetings:** with departments of Pathology and Radio-Diagnosis periodically. Radio-diagnosis: Interesting cases and the imaging modalities should be discussed. These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.
 11. **Teaching skills:** Postgraduate students must teach undergraduate students by taking demonstrations, bed side clinics, tutorials etc. Assessment is made using a checklist by the faculty as well as students. Record of their participation may be kept in Log book. Training of post graduate students in Educational Science and Technology is recommended.
 12. **Continuing Medical Education Programmes (CME):** Recommended that at least 4 state/national level CME programmes should be attended by each student in 3 years. It is optional to attend workshops.
 13. **Community camps:** For rural exposure and also for experience in preventive aspect in rural situation/Hospital/School, patient care camps are to be arranged involving Residents junior faculty.
 14. **Emergency situation:** Casualty duty of the department shall be done by rotation by all the PGs with a faculty cover daily by rotation.
 15. **Afternoon Clinics:**
 - (i) **Vertigo Clinic:** All the patients of vertigo attending ENT OPD/referred cases are worked up in details by the Residents and are discussed with Faculty and treatment decided upon.
 - (ii) **Headache clinic:** For patients with sinus diseases, facial pain and primary headaches
 - (iii) **Allergy clinic:** for symptomatic patients suffering from nasal allergy
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14. Bedside clinical training for patient care management and for bedside manners. Daily for half to one hour's duration during ward round with faculty and half an hour in the evenings by senior resident/Faculty on emergency duty. Bedside patient care discussion is to be made. Faculty should take a Teaching Rounds by Rotation.

15. Death Cases: 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.

16. 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.

17. Clinical interaction with audiologists/speech therapist: Clinical interactions with audiologist/speech therapist pertaining to management of the patients with audiological/speech problems are to be made.

18. Research Methodology: The student should know the basic concepts of research methodology plan a research project, be able to retrieve information from the library. The student should have a basic knowledge of statistics. The resident shall compulsorily attend the research methodology workshop organized by the university. They can also do add on courses on ethics conducted by the university, however, it is optional.

The online Basic course in Biomedical Research conducted on SWAYAM portal is mandatory as per the MCI notification

19. Writing Thesis: Thesis progress is presented periodically, once in 3 months and discussion made in the department. 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 shall be brought to the notice of HOD/Dean/principal. Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised postgraduate teacher. The results of such a work shall be submitted in the form of a dissertation.

1. The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.
2. Selection of thesis Topic: subject of thesis will be selected by the candidate under guidance of Faculty which will be approved by the department guide and other faculty. The candidate will be asked to submit the protocol within three months of admission after departmental

Faculty scrutinizes it. It is to be approved by the BOS, Scientific review committee/Ethical committee of the Institute/College and the ethical considerations are also discussed. Once the thesis protocol is approved the candidate starts his research work under direct supervision of guide and co guides. No change in the dissertation topic or guide shall be made without prior approval of the University.

3. 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) Conclusion
 - viii) Summary
 - ix) Reference (Vancouver style)
 - x) Tables
 - xi) Annexure
4. The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27” x 11.69”) and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.
5. Four copies of dissertation thus prepared along with CD shall be submitted to the Registrar (Evaluation), six months before final examination on or before the dates notified by the University.
6. Three/six monthly progress of the thesis will be checked to know the outcomes/or difficulties faced by the candidate.
7. Candidate will be asked to submit the thesis 6 months before the final exams
8. The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.
9. Thesis shall be submitted at least six months before the Theory and Clinical /Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical

examination. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

20. 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 during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination. The dissertation shall be made into publication format and given to the guide, which shall be sent for publication by the guide after the resident, completes the course.

21. Department should encourage e-learning activities.

22. **Log book:**

Each student must be asked to present a specified number of cases for clinical discussion, perform procedures/tests/operations/present seminars/review articles from various journals in inter-unit/interdepartmental teaching sessions. They should be entered in a Log Book. The Log books shall be checked and assessed periodically by the faculty members imparting the training.

Amendments made to Teaching Learning Methods : Role play/interactive lectures, movies to give training in patient counseling, informed consent process, empathy and communication skills

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 the medical colleges is mandatory.

PG Leaves: In addition to 20 days annual leave, the PG residents are eligible to take additional leave to attend state / national level conferences for presenting poster / paper. In addition to this, five days of additional leave will be sanctioned for attending local meeting/ conferences / workshops. Leave for medical illness and special occasions like self-marriage, maternity leave will not be counted for attendance.

Attendance: Every candidate is required to attend a minimum of 80% of the training each academic year of the Postgraduate course. Provided further , leave of any kind shall not be counted as part of academic term without prejudice to minimum 80 % attendance of training period every year.

ASSESSMENT

Assessment should be comprehensive & objective. It should address the stated competencies of the course. The assessment needs to be spread over the duration of the course.

FORMATIVE ASSESSMENT, i.e., assessment during the training would include: 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 clinical examination.

Quarterly assessment during the MS training should be based on following educational activities:

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).

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring may be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. The learning out comes to be assessed should included: (i) Personal Attitudes, (ii) Acquisition of Knowledge, (iii) Clinical and operative skills, (iv) Teaching skills and (v) Dissertation.

- i) Personal Attitudes. The essential items are:

-
- Caring attitudes and Initiative
 - Organising ability
 - Potential to cope with stressful situations and undertake responsibility
 - Trust worthiness and reliability
 - To understand and communicate intelligibly with patients and others
 - Ability to work in team
 - A critical enquiring approach to the acquisition of knowledge

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

ii) Acquisition of Knowledge: The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist

Seminar / Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio – visual aids are to be assessed using a checklist

Clinico-pathological conferences: this should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

iii) Clinical Skills

Day to day work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills

Clinical Meetings: Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list

(iv) Teaching Skills:

Candidates should be encouraged to teach undergraduate medical students and paramedical

students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students

(v) Dissertation in the Department:

Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the University for registration, again before finalization for critical evaluation and another before final submission of the completed work

(vi) Work diary / Log Book

Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate. The work diary shall be scrutinised and certified by the Head of the Department and Head of the Institution, and presented in the university practical/clinical examination.

(vii) Periodic tests:

The departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practicals / clinicals and viva voce. The department conducts written test on the first Thursday of every month based on the seminar topics and clinical case discussions of the previous month. The department may conduct monthly written tests based on the previous months teaching program.

(viii) Records

Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

Log Book

The log book is a record of the important activities of the candidates during his training, internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Procedure for defaulters: The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.

SUMMATIVE ASSESSMENT ie.,at the end of the training

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

The examination will be in three parts:

1. Thesis

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognized Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. 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, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature.

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory

The examinations shall be organised on the basis of 'Grading' or 'Marking system' to evaluate and to certify candidate'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 MS shall be held at the end of 3rd academic year. An academic term shall mean six month's training period.

Theory shall consist of four papers of 3 hours each.

- | | |
|-------------------|--|
| 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 and Head-Neck Surgery. |

3. Clinical / Practical and viva voce Examination

Clinical examination shall be conducted to test the knowledge, skills, attitude and competence of the post graduate students for undertaking independent work as a specialist/teacher, for

which post graduate students shall examine a minimum one long case and two short cases. The clinical examinations will be held as per MCI Guidelines.. Results of the examination will be declared as pass/failed. (Grades/marks will be given as per the University Rules). While doing so, both, formative and summative assessment will be taken into consideration.

The Oral examination shall be thorough and shall aim at assessing the post graduate student's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the specialty, which form a part of the examination.

Assessment may include Objective Structured Clinical Examination(OSCE).

Oral/Viva-voce examination needs to assess knowledge on X-rays, instrumentation, operative procedures. Due weightage should be given to Log Book Records and day- to-day observation during the training.

Scheme of Examinations:

A. Theory	
Title	Marks
Paper 1: Basic sciences related to Ear, Nose and Throat diseases	100
Paper 2: Principles & Practice of Ear, Nose and Throat Surgeries	100
Paper 3: Operative Surgery and Principles of General Surgery as applied to ENT	100
Paper 4: Recent advances in ENT diseases	100
Total	400
B. Practicals	
One long case	100
Two short cases (50 marks each)	100
C. Oral/Viva Voce	
Viva (10 marks with each examiner)	40
Instruments and pedagogy	20
Specimens	10
Bones (Temporal bone, Skull)	10
Investigations: CT, MRI, Audiogram, BERA, Impedance, ENG, X-ray	20
Total	700

Examiners/ Final Examinations

A) There shall be four examiners including two external and two internal. One of the internal examiners will be the Head of the Department and he /she shall be the Chairman/Convener. The second internal examiner shall be next senior most member of Faculty of the department provided he/she is eligible for such duty. It is also suggested that if there are many eligible internal examiners in the department, the second examiner may be selected on rotation.

The necessity of an external examiner is to maintain the standard of the examination at the National level. Both the external examiners shall be from outside the state. All examiners must be a full time teacher with requisite experience as per MCI guidelines.

The internal shall have minimum 3 years of PG teaching experience and the external shall have minimum 6 years of PG teaching experience.

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. 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.

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 6 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.

Syllabus for Individual Papers and question paper pattern

Amended as per MCI Notification

Paper I: Basic Sciences related Otolaryngology

- Physiology - Mechanism of perception of smell and taste, mechanism of breathing and voice production, lacrimation, deglutition and salivation. Functional tests of the nose and paranasal sinuses, mechanism of cough and sneezing.
- Physics of sound, theories of hearing, mechanism of perception of sound and speech production, physiology of equilibrium and 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 and 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 and Neck and 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 bronchi, lungs, pleurae, oesophagus and the mediastinum.
- Anatomy of all cranial nerves with their functions.

Paper II: Principles and Practices of Otolaryngology

- Clinical Methodology as applied to ORL HN diseases in adult and 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 tumors of the nose, and paranasal sinuses.
- Examination of the ear, deafness and allied diseases, complications of diseases of the ear. Injuries, tumors, 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.

-
- Surgical pathology of Otolaryngology and Head Neck region. Basic knowledge of anaesthesia as related to ENT.
 - Examination of diseases of children (Paediatric ORL) in connection with throat and larynx. Neurological and vascular disturbances. Congenital and neonatal stridor.
 - Pathology of various diseases of the larynx and throat, tracheo-bronchial tree and their causative organisms.
 - Indications and various techniques of direct laryngoscopy, nasalendoscopy. Bronchoscopy and oesophagoscopy, including microlaryngoscopic procedures.
 - Reading of radiograms, scans, audiograms, nystagmograms and tympanograms in connection with ENT diseases/disorders.
 - Special apparatus for the diagnosis and treatment of the diseases of ear, nose and throat including audiometer, BERA, Speech analyser etc.

Paper III: General Surgical Principles and Head-Neck Surgery

- General Surgery, Head and Neck oncology, and Medicine as applicable to the ENT disorders/diseases. Surgery of congenital deformities of nose, ear (Pinna) and trachea/oesophagus etc.
- Radiology, Imaging – computed tomography and magnetic resonance imaging, (MRI) and intervention radiology and angiography as related to ENT.
- 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.
- General Principles of faciomaxillary traumatology and neck injury.
- Plastic Surgery as applicable to Otolaryngology.

Paper IV: Recent advances in Otolaryngology and Head Neck surgery

- Recent developments in the diagnosis, pathogenesis and treatment of the ENT diseases.
- The knowledge of the frontiers of the oto-laryngology and lateral skull base surgery.
- Rhinoplasty, endoscopic sinus surgery, and anterior cranial fossa surgery.
- Knowledge of LASERS and fibre optics.
- Other methods of managing Hearing loss.
- Implantable hearing aids cochlear implants.
- Phonosurgery
- Etiology and Managements of sleep apnoea/snoring,
- Hypophysectomy and optic nerve decompressions.
- Immunotherapy and modalities of the gene therapy
- Newer techniques for Radiotherapy including, use of gamma knife for treatment of Intracranialtumors and other malignancy.
- Chemotherapy of cancer.

MODEL QUESTION PAPER
MS (Ear, Nose and Throat)

Paper-I

Basic Sciences as related to Ear, Nose & Throat diseases

Max. Marks: 100

Time: 3 hrs

Attempt ALL questions

***Answer each question & its parts in SEQUENTIAL ORDER
ALL questions carry equal marks***

Illustrate your answer with SUITABLE DIAGRAMS

10 Short notes of 10 marks each

1. What is three tier mechanisms of larynx? Describe its clinical applications.
2. Draw a diagram showing osteo meatal complex. Explain its role in endoscopic sinus surgery.
3. Write briefly on anatomy of pathway of olfaction. Elaborate the theories of olfaction.
4. Discuss the development of 2nd branchial arch. Enlist the various anomalies associated with it.
5. Discuss the theories of bone conduction.
6. Enumerate the anomalies of the pinna.
7. Discuss the anatomy of the fossa of rosenmuller and its clinical importance.
8. Discuss the anatomy of pterygo-palatine fossa.
9. Discuss the applied surgical anatomy of middle ear spaces.
10. Describe the impedance matching mechanism of middle ear. Add a note on the objective testing of the same

MODEL QUESTION PAPER

MS (Ear, Nose and Throat)
Paper-II

Principles & Practice of Ear, Nose & Throat diseases

Max. Marks:100

Time: 3 hrs

Attempt ALL questions
Answer each question & its parts in SEQUENTIAL ORDER
ALL questions carry equal marks
Illustrate your answer with SUITABLE DIAGRAMS

10 short notes of 10 marks each

1. Enumerate the causes of unilateral nasal obstruction in a young male. Write briefly on aetiopathogenesis of angiofibroma.
2. Discuss the aetiopathogenesis of Meniere's disease.
3. Discuss the clinical features and pathology of glomus tumour.
4. Elaborate the TNM classification of supraglottic carcinoma and write about its management.
5. What are the premalignant lesions of larynx? Discuss their management
6. Discuss the pathogenesis and the tests for recruitment.
7. What is the pathology of noise induced hearing loss.
8. Write about the aetiopathogenesis, clinical presentation and management of necrotizing otitis media
9. Write briefly on role of impedance audiometry in middle ear pathologies
10. What is optokinetic nystagmus? Discuss its clinical significance and testing procedures.

MODEL QUESTION PAPER

MS (Ear, Nose and Throat)

Paper-III

Operative Surgery of Principles of General surgery as applied to ENT

Max. Marks:100

Time: 3 hrs

Attempt ALL questions

Answer each question & its parts in SEQUENTIAL ORDER

ALL questions carry equal marks

Illustrate your answer with SUITABLE DIAGRAMS

1. Describe the indications and surgical technique of near total laryngectomy.
2. Enumerate the types of neck dissections and write briefly on their indications.
3. What is immunotherapy and its role in Head and Neck Cancers?
4. Discuss the extra nasal indications of endoscopic sinus surgery.
5. Enumerate the extra temporal complications of otitis media and write about the management of sigmoid sinus thrombosis.
6. Write briefly on types of osteotomies in Rhinoplasty.
7. Discuss the surgical management of pleomorphic adenoma of parotid.
8. Discuss the types of thyroiditis and the management of Hashimoto's thyroiditis.
9. Describe the surgical treatments for postcricoid carcinoma.
10. Discuss the role of microvascular flaps in malignancies of oral cavity.

MODEL QUESTION PAPER

MS (Ear, Nose and Throat)

Paper-IV

Recent advances in ENT diseases

Max. Marks: 100

Time: 3 hrs

Attempt ALL questions

***Answer each question & its parts in SEQUENTIAL ORDER
ALL questions carry equal marks***

Illustrate your answer with SUITABLE DIAGRAMS

1. Enumerate the types of lasers and write briefly on its role in laryngeal pathologies.
2. What is photodynamic theory? Describe its role in nasopharyngeal carcinoma.
3. Describe the selection criteria for cochlear implant and write briefly on advantages of multi-channel implants.
4. What is otoendoscopy? Describe the clinical application
5. What is spastic dysphonia? Describe its management.
6. Describe the advantages of image guided surgery
7. Describe the role of intraoperative nerve monitoring in ENT surgeries
8. Write briefly on the types of laryngeal prosthesis for post laryngectomy patients
9. What are optoacoustic emissions? Add a note on their clinical applications
10. What is bone anchored hearing aid? Enumerate the indications and discuss the surgical procedure

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

Format of Model Check Lists

Check List – I. MODEL CHECK-LIST FOR EVALUATION OF JOURNAL
REVIEW PRESENTATIONS

Name of the Student:

Date:

Name of the Faculty / Observer:

Sl No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Article chosen was					
2.	Extent of understanding of scope & objectives of the paper by the candidate					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio-Visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score					

Check List – II

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR
PRESENTATIONS / JOURNAL CLUB

Name of the Student:

Date:

Name of the Faculty / Observer:

Sl No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether other relevant publications consulted					
2.	Whether cross references have been consulted					
3.	Completeness of Preparation / Article chose was					
4.	Clarity of Presentation / Audibility / Proficiency in language					
5.	Understanding of subject / knowledge in the subject					
6.	Ability to answer questions / interaction					
7.	Time scheduling / attitude / body language					
8.	Appropriate use of Audio-visual aids					
9.	Overall Performance					
	Total Score					

CHECK LIST – III
 MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN
 WARD / OPD

(To be completed once a month by respective Unit Heads)

Name of the Student:

Date:

Name of the unit Head:

Sl. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance					
2.	Punctuality					
3.	Interaction with colleagues and supportive staff					
4.	Maintenance of case records					
5.	Presentation of cases during rounds					
6.	Investigations work up					
7.	Beside manners					
8.	Rapport with patients					
9.	OT work Post-op & follow-up					
10.	Overall quality of Ward work					
	Total Score					

CHECK LIST – IV
EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the Student:

Date:

Name of the Faculty:

Sl. No.	Points to be considered	Poor 0	Below Avera ge 1	Avera ge 2	Good 3	Very Good 4
1.	Completeness of history with all relevant points elicited					
2.	Clarity of Presentation / Audibility					
3.	Mentioned all positive and negative points of importance					
4.	Accuracy of general physical / local examination					
5.	Diagnosis Whether it follows logically from history and findings					
6.	Approach to the management, investigations & step by step discussion of treatment with application of logic & relevance					
7.	Proficiency of language & knowledge of the subject					
	Grand Total					

**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

LOG BOOK:

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Postings

Sl. No	Department / Institution	From	To	Duration	Signature

Postgraduate Evaluation during Clinical Postings

Month and year of posting	Type of postings/ratings	Theoretical knowledge	Clinical judgment	Willingness to learn	Application to work	Work organization	Medical records	Punctuality	Attitude to patients	Co-operation with medical staff	Attitude to nursing	General comments	Signature of HOU

SEMINARS ATTENDED

Sl. No	Date	Topic	Signature of Faculty

SEMINARS PRESENTED

Sl. No	Date	Topic	Evaluation Score	Signature of Moderator

CASE PRESENTATIONS PARTICIPATED

Sl. No	Date	Topic	Signature of Faculty

CASES PRESENTED

Sl. No	Date	Topic	Evaluation Score	Signature of Moderator

GROUP DISCUSSIONS

Sl. No	Date	Topic	Signature of Moderator

INTEGRATED TEACHING

Sl. No	Date	Topic	Signature of Moderator

FACULTY LECTURES

Sl. No	Month & Year	Topic	Signature of Faculty

CLINICOPATHOLOGICAL CONFERENCES

Sl. No	Month & Year	Case discussed	Signature of Faculty

DIAGNOSTIC PROCEDURES

Sl. No	Date	Name of the patient	I.P no	Procedure	O/A/PA/PI	Signature of faculty

OPERATIVE PROCEDURES OBSERVED/ASSISTED/PERFORMED

O- Observed A- Assisted PA-Performed under supervision PI- Performed Independently

Sl. No	Date	Name of the Patient	I.P No	Procedure	O/A/PA/PI	Signature of faculty

EMERGENCY SURGICAL PROCEDURES

Sl. No	Date	IP No	Diagnosis	Surgery	Sign

CME/WORKSHOP/CONFERENCE/GUEST LECTURES (Attended)

From Date	To date	Name of <u>CME/Workshop/Conference/Guest lectures</u> <u>(Local/National/International)</u>	Signature of Faculty

DETAILS OF THESIS/RESEARCH PAPER AND POSTER PRESENTATIONS

Thesis:

Title of thesis	Guide	Co-guide (if any)

Research undertaken other than thesis:

Title of thesis	Guide	Co-guide (if any)

Research paper and poster presentations

Sl. No	Date	Title	Paper/Poster	Conference	Place

CAMPS ATTENDED

Sl. No	Date	Camp location	Total patients	Sign