

# CERTIFIED FELLOWSHIP IN ORAL ONCOLOGY & RECONSTRUCTIVE SURGERY

[Syllabus Approved by Board of Studies, Medical & Health Sciences]

<b>Programme Code</b>	:	HLTH14A13
<b>Programme Details</b>	:	2-YEARS HBNI CERTIFIED FELLOWSHIP IN ORAL ONCOLOGY & RECONSTRUCTIVE SURGERY
<b>Programme Learning Outcomes (PLOs / PSOs)</b>	:	MENTIONED [COMMON FOR ALL 2 YRS HBNI CERTIFIED FELLOWSHIPS OFFERED AT TMC]
<b>Eligibility Criteria</b>	:	MDS (ORAL & MAXILLOFACIAL SURGERY).
<b>Duration of the Course</b>	:	2 YEARS
<b>Programme Structure (Credit-Based)</b>	:	NA
<b>Detailed Course Syllabus</b>	:	ATTACHED
<b>Teaching–Learning Methodologies</b>	:	2 YEARS PROGRAM
<b>Examination &amp; Evaluation System</b>	:	ANNUAL APPRAISAL FOLLOWED BY UNIVERSITY FINAL EXAMINATION
<b>Internship / Project / Dissertation Guidelines</b>	:	NA
<b>Program In Charge</b>	:	PROF. GOURI PANTVAIDYA ( <a href="mailto:docgouri@gmail.com">docgouri@gmail.com</a> )

## CERTIFIED FELLOWSHIP (ORAL ONCOLOGY & RECONSTRUCTIVE SURGERY)

*Programme Code: HLTH14A13*

*Programme Outcome:*

- The HBNI Fellowship Programmes at Tata Memorial Centre are designed to develop competent, ethical, and academically oriented healthcare professionals with advanced knowledge and skills in their respective specialties and subspecialties.
- At the completion of the fellowship, candidates are expected to demonstrate excellence in clinical practice, patient-centered care, multidisciplinary teamwork, communication, professionalism, and evidence-based decision-making.
- Fellows shall acquire the ability to independently evaluate, diagnose, plan, and manage patients while adhering to institutional protocols, quality standards, patient safety practices, and ethical principles in healthcare delivery.
- The fellowship programmes also aim to foster academic growth, research aptitude, lifelong learning, and leadership qualities among trainees.
- Fellows are expected to actively participate in teaching, seminars, journal clubs, conferences, audits, and research activities, thereby contributing to the advancement of medical science and institutional development.
- Upon successful completion of the programme, the fellow should be capable of functioning independently as a skilled specialist/subspecialist with competence in clinical services, academics, research, and collaborative healthcare practice in tertiary care and oncology-focused settings.

## DETAILED SYLLABUS

The HBNI fellowship in Oral oncology and reconstructive surgery provides comprehensive broad range of exposure of the management of, including reconstruction principles, patients with oral cancer. The candidate will also be taught regarding the management of oropharyngeal cancer and salivary gland neoplasm. At the end of the fellowship the candidate would be trained in the comprehensive management of oral cancer.

### ■ **Training:**

- Multidisciplinary management of oral cancer, as per the evidence based guidelines.
- Principles of the surgical management of oral cancer.
- Principles of adjuvant treatment, including radiotherapy techniques and chemotherapeutic agents.
- Principles of reconstruction of oral cancer defects, including local, Pedicled and free flap.
- Supervised hands on training in major and minor surgical procedures with maintenance of logbook.
- Principles of palliative care for advanced oral cancer, preventive oncology.
- Basic training in research methodology. The trainee will be encouraged to be part of research work in the department and publish/submit at least one article for publication.

### ■ **TEACHING SCHEDULE**

#### • **A. Clinical:**

##### ○ **Outpatient Teaching Schedule:**

The students will attend outpatient clinics as per the schedule of the assigned unit. In the outpatient clinics, the students will be taught clinical history taking, clinical examination with appropriate investigations to stage the patient and tentative management plan for the patient. These shall be subsequently confirmed in the Joint Clinic. At the end of residency, the students are trained for independent decision-making and management of the patient.

##### ○ **Teaching Ward Rounds:**

In addition to daily ward rounds, teaching ward rounds are conducted every Thursday

morning by the consultant, for all students in the Head and Neck Surgery Department. The student assesses the patients and presents the case, where the complete management of the patient from the basic investigation to definitive treatment and post treatment follow-up is discussed.

○ **Operation Theatres:**

The students will attend the Operation Rooms (OR) as per the schedule of the assigned unit where they will assist in or perform operations under supervision. In minor OR the focus is on procedures like tracheostomy, punch biopsy and knife biopsy and examination for mapping out the disease and making the management plan, raising of pedicled flaps. In the major OR, the student shall be learning to perform various neck dissections in oral cancer, early oral cancer, performing the excision of various oral cavity primaries with adequate margins and reconstruction including inset of the pedicled flaps and various local flaps in Major OR.

○ **Casualty duties and emergency management:**

The fellow shall have casualty rotation along with the other surgical residents, where they are exposed to various oncologic emergencies. They learn to take decision regarding the emergency investigations and undertake the basic treatment to stabilize the patient. They deal with both surgical and non-surgical emergencies; perform emergency procedures like external carotid artery ligation, tracheostomy.

● **B. Academic:**

There is structured program covering all aspects of head and neck cancers:

- Formal course of lectures which cover the management of all subsites of head and neck cancer, basic science like molecular markers and carcinogenesis, premalignant lesions and chemoprevention, rehabilitation protocols, newer techniques and technologies, postoperative management and follow-up
- Case presentations covering early and advanced head and neck cancers.
- Seminar / journal club.
- Weekly Hospital Clinical Meetings.
- Mortality meeting discussing the cause and prevention in treated patients
- All Seminar / Conference / Workshops conducted by the Department routine being Oral Mastercourse, Oncosurg, etc.

▪ **Topics to be covered during the fellowship programme:**

• **GENERAL HEAD NECK**

- Management of unresectable HN cancer
- Nutritional support for HN cancer patients (peri-operative and during radiation therapy)
- Role of re-irradiation in HN cancer
- Sarcomas of the head and neck
- Mucosal melanomas
- Skin cancer
- Palliative chemotherapy & Targeted therapy in HN cancer.

• **LIP AND ORAL CAVITY**

- Imaging for the mandible
- Infratemporal fossa – anatomy, imaging and relevance to resectability
- Muscles of mastication and technique of composite resections (videos)
- Management of early oral cancer (stage I & II)
- Imaging of the neck and management of the neck in early oral cancer
- Types of neck dissection
- Reconstruction options after surgery for early oral cancer (buccal mucosa and tongue)
- Resection margins in surgery for oral cancer- evidence
- Role of neoadjuvant chemotherapy in oral cancers
- Adjuvant therapy for oral cancers
- Brachytherapy for lip cancers
- Principles of reconstruction and local flaps after lip resections
- Role of sentinel node biopsy
- Dental evaluation (pre and post op) and prosthetics after oral cancer surgery.

• **Carcinogenesis**

- Etiology of cancer
- Environmental factors in carcinogenesis
- Genetic factors in carcinogenesis
- Human Papilloma Virus and cancer
- Other tumor viruses
- Tobacco carcinogenesis

• **Principles of cancer screening**

- **Radiology Clinics 6. Basic science**
  - Cancer biology
  - Chromosome related technology (Karyotyping, Comparative genomic hybridization, Fluorescence In Situ Hybridization)
  - DNA and RNA related technology (Isolation and quantitation of DNA/RNA, Mutation analysis, PCR, RT PCR, Real Time PCR, sequencing, arrays)
  - Protein related technology (Immunohistochemistry and Westernblotting)
  - Tumor Immunology
  - Cell cycle
  - Programmed cell death/apoptosis
  - Angiogenesis
  - Cancer stem cells
  - Apoptosis and its significance in cancer
  - Biomarkers in head neck cancer
- **Clinical Research Methodology**
  - Making a database
  - Study designs – case control, cohort and RCTs
  - Writing a research protocol
  - Writing a paper for publication
  - Survival analysis
  - Randomized controlled trials
  - Systematic reviews and meta-analysis
  - Evaluating screening tests and biases
  - Evaluating /critique of a published paper
- **Quality of Life**
- **Principles of Radiation Oncology**
  - Physical and biologic basis of radiation oncology
  - Fractionation techniques
  - Brachytherapy
  - Newer techniques in radiation Oncology
  - Hypoxia in head neck cancers and hypoxic cell sensitizers
  - Radiotherapy planning
  - IMRT and evidence to support its use in HN cancer
- **Principles of medical oncology**

- Mechanism of action of cytotoxic agents
- Targeted therapy
- Assessment of response (clinical and RECIST)
- Immunotherapy

## ▪ **ELIGIBILITY FOR EXAMINATION**

The candidate will be eligible to appear for the exit examination only after certification of the following:

- Completion of two years of training.
- Satisfactory attendance at Clinical / Academic sessions as duly certified on the logbook by the teacher. A minimum attendance of 85 % is mandatory.

## ▪ **EXAMINATION**

### • **Board of Examiners:**

- Two Examiners: One internal & one external
- All examiners shall be Surgical Oncologists/ Head and Neck surgeon.

### • **Assessments of candidates & Results:**

- Assessment of theory, clinical, practical and viva–voce examination shall be done jointly by all the examiners.
- A candidates shall be declared to have passed the examination if he /she has an adequate knowledge in all subjects as answered by Theory / clinical / practical and viva–voce examination and there shall be no classification or ranking of successful candidates.
- A candidates who fails in an examination shall appear as a casual student for subsequent examination.
- The Board of examiners shall have the power to refer failed candidates for one year or to put in attendance for one term i.e. Six months before appearing for the next examination.

## **References**

### ▪ **Suggested Journals**

- Oral Oncology.
- Head Neck.
- British journal of oral and Maxillofacial surgery.
- International Journal of oral Maxillofacial surgery.
- Journal of Oral Maxillofacial surgery
- Oral surgery, oral Medicine, Oral Pathology, Oral Radiology.
- Journal of surgical oncology
- European Journal of Surgical Oncology.
- Cancer.
- New England Journal of Medicine.

### ▪ **Suggested Books**

1. Stell and Maran, 3rd edition
2. Head & Neck Cancer: A multidisciplinary Approach, Harrison LB.
3. Atlas of operative surgical oncology, Sabita Jiwnani, Anil D'cruz, Rajendra Badwe.
4. Color Atlas of Head & Neck Surgery, JP Shah.
5. Malignant tumours of mouth, jaws and salivary gland. Langdonj D, Henk JM.
6. Grabb & Smith's Plastic surgery-5th edition.