CERTIFIED FELLOWSHIP THORACIC ONCOLOGY

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

Programme Code	:	HLTH14A23
Programme Details	:	2-YEAR HBNI CERTIFIED FELLOWSHIP IN THORACIC ONCOLOGY
Programme Learning Outcomes (PLOs / PSOs)	:	MENTIONED [COMMON FOR ALL 2 YRS HBNI CERTIFIED FELLOWSHIPS OFFERED AT TMC]
Eligibility Criteria	:	MCH/DRNB SURGICAL ONCOLOGY/DRNB (THORACIC SURGERY) OR MS(GENERAL SURGERY) WITH 1-YEAR EXPERIENCE IN SURGICAL ONCOLOGY.
Duration of the Course	:	2 YEARS
Programme Structure (Credit-Based)	:	NA
Detailed Course Syllabus	:	ATTACHED
Teaching–Learning Methodologies	:	2 YEARS PROGRAM
Examination & Evaluation System	:	ANNUAL APPRAISAL FOLLOWED BY UNIVERSITY FINAL EXAMINATION
Internship / Project / Dissertation Guidelines	:	NA
Program In Charge	:	PROF. SABITA JIWNANI (*sabitajiwnani@gmail.com*)

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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

▪ Diagnostic techniques and staging

- Reading a CECT thorax, abdomen and pelvis
- Indications and interpretation of PET CECT, MRI brain, MRI thoracic inlet
- Indications and interpretation of special radiotracer scans
- Rigid and flexible bronchoscopic procedures
- Bronchoscopic biopsy
- Supraclavicular lymph node biopsy
- Core biopsy from chest wall lesions
- Principles of image guided biopsy
- Endobronchial Ultrasound for mediastinal staging
- Mediastinoscopy
- Pleuroscopy
- Planning image guided biopsies from metastatic sites
- Assessing need and interpreting follow up imaging
- Understanding upper GI endoscopy, mapping esophageal lesions
- Concept of endoscopic management of in situ/ early esophageal cancers, premalignant lesions
- Interpretation of tumour markers
- Interpretation of routine blood tests, coagulation profile
- Interpretation of pulmonary function tests and need for referral for pulmonary/ cardiac optimization or optimization of other co-morbid conditions.
- Formulating stage appropriate management protocols within a multidisciplinary team

▪ Surgery for thoracic malignancies

- Pre-operative evaluation for fitness for thoracic surgery
- Pre-operative optimisation
- Need for pulmonary, nutritional rehabilitation
- Pre-operative preparation and starvation protocols
- Prophylaxis against venous thromboembolism
- Informed consent for routine and high risk surgery
- Planning the surgery, indications and contraindications for minimally invasive procedures
- Executing routine surgeries for thoracic malignancies
- Management of intra-operative events
- Post-operative care including intensive care, fluid and nutrition management
- Diagnosis and management of common post-operative complications

At the end of the 2 year period, the candidate is expected to gain proficiency in the following procedures:

- Esophagectomy: Independently perform open transthoracic, Ivor Lewis, Left thoraco-abdominal approaches for esophagectomy, perform thoracoscopic esophageal

mobilisation and laparoscopic stomach mobilisation with assistance/ under supervision, basics of robotic esophagectomy: setup, docking and initial steps
- Lung resections: Independently perform open anatomical and non-anatomical resections, perform basic steps of VATS lobectomy with assistance/ under supervision, basics of robotic lung resection like setup and docking, systematic mediastinal lymph node dissection: open
- Perform initial steps of mediastinoscopy under supervision
- Chest wall resection including sternal resection with semi rigid/ rigid reconstruction
- Mediastinal mass excision including VATS approach and basics of robotic thymectomy include setup and docking
- Open and VATS pulmonary metastasectomy
- Rigid and flexible bronchoscopic procedures

The candidate will be expected to maintain a logbook of procedures performed and assisted including the following:

- Type of surgery
- Role performed
- Intraoperative events
- Postoperative complications
- Histopathology

Principles of Radiation Oncology

- Radiobiology principles
- Basics of radiation oncology planning and treatment delivery
- Indications of radiation in thoracic malignancies
- Early and late post radiation complications

Principles of Medical Oncology

- Principles of chemotherapy, targeted therapy and immunotherapy
- Indications of systemic therapeutic agents in thoracic malignancies
- Response assessment
- Post chemotherapy complications
- Role of molecular markers, Next Generation Sequencing and liquid biopsies

Basics of Pulmonology

- Pulmonary function tests
- Calculating post-operative predicted values
- Understanding the need for pulmonology referrals and bronchodilators
- Basic radiology for lung parenchymal disease

Post-operative Rehabilitation

- Speech and swallow assessment
- Management of aspiration and oropharyngeal dysphagia
- Chest physiotherapy

- **Basics of palliative care**

  - Symptom management in advanced/ metastatic disease
  - Counselling of patients and caregivers
  - End of life care
  - Competency in breaking bad news

- **Basics of pathology of common thoracic malignancies**

- **Data and statistics**

  - Maintaining operative databases on SPSS
  - Basic analysis of data on SPSS
  - Basics of clinical statistics
  - Critical analysis of a research article

Course Outcome:

- General principles of oncology to include cancer surgery, medical and radiation oncology
- Initial work-up and staging of site-specific thoracic malignancies
- Surgically relevant thoracic radiology
- Multidisciplinary joint clinics for oncological pathways
- Pre-operative work-up and optimisation for thoracic surgery
- High Risk Joint Clinics for evaluation and optimisation of surgical risk
- Supervised, hands-on training in major and minor thoracic surgical procedures
- Management of post-operative complications
- Management of clinical data and clinical research methodology
- Exposure to palliative care and counselling of advanced thoracic malignancies

At the end of the course, the candidate will be in a position to evaluate, investigate and stage a patient with thoracic malignancy; formulate and safely execute an evidence based treatment plan. She/ he will also be trained to deal with the social aspects of cancer care, counselling and rehabilitation.