Rotation Specific Goals and Objectives
Thoracic Surgery Training Program

Rotation: Elective Medical-Radiation Oncology
☐ 2 weeks  ☐ 4 weeks
Supervisor: Dr. Vincent or Sanatani (Med-Onc) / Dr. Palma or Rodrigues (Rad-Onc)

INTRODUCTION
A very large portion of General Thoracic Surgery practice relates to oncology. The Thoracic Surgeon will encounter many patients with thoracic malignancies that may be found unsuitable for surgical resection. For many surgical patients, combine modality treatments is the rule rather than the exception. It is therefore of most importance for the Thoracic Surgeon to understand the basic science, treatment guidelines and clinical practice related to medical and radiation oncology. A dedicated rotation may offer the Thoracic Surgery trainee a condense exposure to concepts related to these disciplines and help in updating, refining and assimilating knowledge, leading to a more comprehensive approach of the patient with thoracic malignancies.

CLINICAL AND EDUCATIONAL EXPECTATIONS
• Participation in Medical oncology / Radiation oncology clinics with the supervisors
• Attend sessions in Chemotherapy or Radiation treatment areas
• Participation in Thoracic Surgery /Oncology/ Radiology LRCP multidisciplinary rounds
• Participation in Thoracic Surgery teaching rounds
• Participation in the Thoracic Surgery call schedule: Coverage of one week-end and 4 evenings (18h-8h) / block

EVALUATION
Assessment for this elective will be based on fulfillment of the basic expectations and achievement of the set objectives. The evaluation will be fill out by the supervisor(s) of the rotation and forwarded to the Thoracic Surgery trainee and Program Director.

Goals and Objectives of the Thoracic Surgery Resident/Fellow for the Research Elective

SPECIFIC OBJECTIVES
At the completion of the research elective the resident will:

Medical expert
General
• Have a better understanding of the indications, contraindication and choices of therapy in treating thoracic malignancies both for curative and palliative purposes
• Appreciate the acute, subacute and long term complications of such therapy
• Recognize the importance of these therapy in the management of many thoracic malignancies including lung cancer, esophageal cancer, high gastric cancer, mesothelioma and thymic malignancies
Medical Oncology

- Differentiate various therapeutic modalities used in medical oncology including chemotherapy, immunotherapy and targeted therapy
- Understand the principle of administration of systemic therapy
- Understand the complications arising from the use of systemic therapy, acute, subacute, long term and late side effects
- Comprehend the use of systemic therapy alone or in combination with radiation therapy in the neo-adjuvant and adjuvant setting
- Comprehend the use of systemic therapy alone or in combination with radiation therapy for curative or palliative purposes in the non-surgical patient

LUNG CANCER

- Differentiate common types of chemotherapy agents used and most common side effects
  - Alkylating agents (cisplatin, carboplatin)
  - Antimetabolites (gemcitabine, pemetrexed)
  - Topoisomerase inhibitors (topotecan, etoposide)
  - Spindle poisons (paclitaxel, docetaxel, vinorelbine, vinblastine)
- Get knowledgeable of the targeted therapy potentially used for lung cancer, their mechanism of action and indications
  - Erlotinib (Tarceva), gefitinib (Iressa), bevacizumab (Avastin)
- Know the proper use of systemic therapy for the following indications
  - Adjuvant/neoadjuvant therapy – NSCLC – stage I-III
  - Definitive therapy – NSCLC – stage III
  - Palliative therapy – NSCLC – stage III-IV
  - Curative and palliative therapy – SCLC

ESOPHAGEAL / GE JUNCTION / HIGH GASTRIC CANCER

- Differentiate common types of chemotherapy agents used in esophageal/gastric cancer and their most common side effects: cisplatin, carboplatin, 5-FU, epirubicin, docetaxel, capecitabine, etc.
- Know the proper use of systemic therapy for the following indications
  - Adjuvant/neoadjuvant therapy for resectable esophageal cancer
  - Palliative therapy for non-resectable disease
  - Specific protocols (MAGIC, MacDonald) for high gastric cancer

Radiation Oncology

- Comprehend the nomenclature used in radiation oncology including total dose, fractions, stereotactic regimens, respiratory gating, etc.
- Appreciate the process involved in radiation planning including the patient’s required abilities, the CT simulation process and the radiation therapy delivery
- Understand the acute, subacute and late complications arising from the use of radiation including complications related to the lung, spinal cord, heart, liver and esophagus
- Understand the rational and delivery methods of brachytherapy in lung or esophageal cancer
- Get knowledgeable of the role of stereotactic therapy in the management of thoracic malignancies
- Appreciate the use of radiation in the management of oncologic emergencies (airway compression, brain metastasis, spinal cord compression, etc.)

LUNG CANCER
- Understand the standards of care for the utilization of radiation therapy in the treatment on various stages of NSCLC
- Understand the use of radiation therapy in the treatment of SCLC
- Appreciate the role of stereotactic radiation in the treatment of solitary pulmonary nodule, as an alternative to resection for high risk patients

ESOPHAGEAL CANCER
- Understand the standards of care for the utilization of radiation therapy in the treatment of esophageal cancer, both for curative (combined treatment) or palliative purpose
- Realize the ongoing debate regarding the utilization of radiation as neo-adjuvant versus adjuvant modality in resectable esophageal cancer

Communicator
- Listen effectively
- Communicate effectively with patients and family in order to gather information and deliver relevant information and explanation
- Convey relevant information to supervisory staff and other colleagues
- Present verbal reports of clinical encounters to other health professional
- Dictate accurately and concisely a report on a patient encounter including an organized impression and plan for treatment

Collaborator
- Participate and contribute in multidisciplinary rounds
- Work harmoniously with all members of oncology team

Manager
- Arrive for the rotation activities on time and prepared / submit assignment on deadline
- Utilize resources effectively, in a cost effective way and to balance patient care, learning needs and other activities

Health Advocate
- Identify the important determinants of health affecting patients
- Appreciate the possibility of conflict of interest between the role of a health advocate for a patient or community and that of a manager or gatekeeper

Scholar
- Develop, implement and monitor a personal continuing education strategy
- Critically appraise sources of medical information
- Facilitate learning of patients, house staff/students and other health professionals

Professional
- Demonstrate a responsible work ethic, exhibit appropriate personal and interpersonal
professional behavior respecting the needs for culture, race and gender

- Deliver highest quality care with integrity, honesty, compassion
- Assess accurately own performance, strengths and weaknesses and accept feedback