Goals and Objectives for Pulmonary Patients  
(PGY- 2, PGY-3, PGY-4, PGY-5)

PGY-2

This service provides training in diagnosis, staging and treatment of thoracic malignancies including small cell, non-small cell lung cancer and mesothelioma.

Patient Care:

- Learn indications for surgery, adjuvant treatments after surgery, radiation and chemotherapy.
- Learn set-up for CT simulation, contouring tumor, lymph nodes and normal structures.
- Learn appropriate treatment field set up and dosimetry.
- Learn endobronchial brachytherapy and its dosimetry.
- Learn about acute and long term side effects of chest radiation and how to manage them.
- Learn the role of stereotactic radiation for central and peripheral lesions.

Medical Knowledge:

- Learn lymphatic drainage and patterns of spread for pulmonary malignancies.
- Knowledge of clinical trials and applying it to patient care.

Practice Based Learning and Improvement:

- Able to participate in multidisciplinary tumor board and journal clubs to discuss management and pertinent literature.
- Able to analyze dosimetry plan and review weekly portal films.

Interpersonal and Communication Skills:

- Able to communicate with patients and family members regarding treatment plan, side effects and follow up.
- Able to communicate with other health professionals involved in patient care.
Goals and Objectives – Pulmonary

Professionalism:

- Demonstrate compassion and respect to the patient.
- Demonstrate sensitivity in respect to ethnic and social needs of the patients.

System Based Practice:

- Able to coordinate the patient’s comprehensive care and other socio-economic needs during radiation therapy.
- Become proficient in searching the data base and literature.

Teaching Methods:

Residents are taught by attending physician one to one or through didactic lecture and visiting professors.

Assessment Methods (Residents):

Each resident is expected to fill out an evaluation of rotation form annually.

Assessment Methods of Program:

Each resident is expected to fill out evaluation of program annually.

Supervision:

One on one by the attending physician.

PGY-3

Continue development in each of the competencies addressed at previous level and additionally:

Patient Care

- Further refine history and physical consultation skills including ability to neck and lung exams.
- Recognize and manage acute and chronic treatment effects with guidance of the attending.
- In follow up, begin to manage post treatment care and evaluate for recurrent/metastatic disease with appropriate diagnostic studies.
- Upon review of current standards of care, propose alternatives for clinical or translational research in this patient population.
- Become more proficient at lung brachytherapy procedures with help of attending.
Goals and Objectives – Pulmonary

Medical Knowledge

- Develop proficiency in staging, extent of disease evaluation, and NCCN guidelines specific to pulmonary pathologies.
- Recommend evidence based treatment options and discuss and compare outcomes such as local control rate, survival probability and toxicities associated with the options identified in lung cancer and other pulmonary pathologies.
- Develop basic understanding of other disciplines in oncology including chemotherapy and surgery for this disease site.
- Become comfortable with developing presentations for our own department as well as others, including journal clubs.
- Begin developing research project to continue during residency.
- Understand radiobiology concepts and apply to clinical radiation oncology.
- Understand physics concepts and apply to clinical radiation oncology.

Practice-based Learning and Improvement

- Formulate complete comprehensive cancer treatment plans with the guidance of the attending.
- Perform simulations and develop treatment plan under the direct supervision of the attending.

Interpersonal and Communication Skills

- Elicit and provide information to patients and their families using effective nonverbal, explanatory, questioning and writing skills.
- Respond promptly to patients’ queries and requests.
- Develop team leadership skills to promote effective care delivery and a wholesome educational environment.

Systems-based Practice

- Exhibit sufficient computer skills to access appropriate medical records and patient data from both department and hospital-based systems.
- Advocate for high quality radiation oncology patient care and assist patients in dealing with system complexities.

Professionalism

- Demonstrate a commitment to carrying out professional responsibilities and a responsiveness to the needs of patients that supersedes self-interest.
**Teaching Methods:**

Residents are taught by attending physician one to one or through didactic lecture and visiting professors.

**Resident Assessment Methods:**

Each resident is expected to fill out an evaluation of rotation form annually.

**Program Assessment Methods:**

Each resident is expected to fill out evaluation of program annually.

**Supervision:**

One on one by the attending physician.

**PGY-4**

**Continue development in each of the competencies addressed at previous level and additionally:**

**Patient Care**

- Comprehensively evaluate patients with lung and other pulmonary pathology, understand multidisciplinary aspects of patient’s care.
- Be able to perform simulation with only observation by attending.
- Be able to perform pulmonary brachytherapy procedures with little assistance from attending.

**Medical Knowledge**

- For effective consultation and referral and for patient education, assess and describe common presentations of radiation interactions with antineoplastic and/or biologic agents for this disease entity.
- Develop in-depth knowledge of chemotherapeutic and surgical roles in multi-disciplinary care of lung cancer.
- Distinguish between important and non-important problems of each patient; prioritize and resolve issues with minimal direct action by the attending physician.
- Understand in-depth concepts in radiobiology and apply to clinical practice of this disease site.
Goals and Objectives – Pulmonary

- Understand in-depth concepts in radiation physics, be able to perform calculations, and apply to clinical practice as it relates to lung cancer radiation treatment.

Practice-based Learning and Improvement

- Refine practice experience through use of chart reviews, M&M and QA monitors to assess performance and management skills.
- Where appropriate and with guidance from the mentoring faculty, review tumor site specific patient experience for outcomes analysis and submission of abstract(s) for presentation.

Interpersonal and Communication Skills

- Develop a style of interaction with staff, attending physicians and colleagues in a manner that promotes and fosters cooperation, trust and respect.
- Become proficient in communicating and educating medical students and junior residents in the program.

Systems-based Practice

- Utilize services within the hospital setting or those available externally to assure patient access to quality care and management.

Professionalism

- Demonstrate appropriate ethical activities and professional behaviors at all times.
- Recognize challenging issues and seek appropriate guidance to resolution.

Teaching Methods:

Residents are taught by attending physician one to one or through didactic lecture and visiting professors.

Resident Assessment Methods:

Each resident is expected to fill out an evaluation of rotation form annually.

Program Assessment Methods:

Each resident is expected to fill out evaluation of program annually.
Goals and Objectives – Pulmonary

Supervision:

One on one by the attending physician.

PGY-5

Continue development in each of the competencies addressed at previous level and additionally:

Patient Care

• Independently evaluate patients and report findings to attending mentor and autonomously manage patients undergoing radiation therapy for lung cancer.
• Be able to perform standard brachytherapy procedures under observation of an attending.
• Be able to independently perform simulation, write a clear radiation prescription and devise an appropriate treatment plan with dosimetrist.

Medical Knowledge

• Acquire an attitude consistent with life-long learning habits.
• Demonstrate a depth of knowledge that will allow residents to practice independently without direct supervision with reference to pulmonary pathology and lung cancer specifically. Understand completely DVH for normal lung, intricacies of dosimetry for this disease site, and patient eligibility for protocols and stereotactic radiation for lung cancer.

Practice-based Learning and Improvement

• Formulate and execute comprehensive treatment prescriptions, plans and simulations in an independent fashion (subject to approval by the attending faculty).
• Evaluate patient during on-treatment visits and in follow up clinic for assessment of acute or late toxicities and present and carry out a comprehensive management plan with minimal attending physician oversight.

Interpersonal and Communication Skills

• Exemplify empathy and conscientious attention to patient/family related concerns surrounding their cancer care and management.
Goals and Objectives – Pulmonary

Systems-based Practice

- Integrate necessary non-radiation interventions to facilitate patient care in multidisciplinary practice environment.
- Identify system and process errors in order to improve quality of care delivery and patient Safety.

Professionalism

- Recognize and act quickly to protect patients from risk.
- Recognize the limits of professional competence and scope of practice.
- Develop a level of confidence and professionalism that confers trust by your patients.

Teaching Methods:

Residents are taught by attending physician one to one or through didactic lecture and visiting professors.

Resident Assessment Methods:

Each resident is expected to fill out an evaluation of rotation form annually.

Program Assessment Methods: Each resident is expected to fill out evaluation of program annually.

Supervision:

One on one by the attending physician.

Educational resources for all levels:

- Residents have access to the Drexelmed library 24/7.
- Basic Radiation Oncology, Anatomy, Radiology, Medical Oncology, Physics and Radiation Biology texts are available in the Radiation Oncology library/conference room or in the residents’ room.
- Pertinent journals are available on-line. There is also a list of suggested articles, by site, in our Residency Program’s Policy and Procedure manual located in the residents’ room.
- Access to NCCN guidelines are accessible and are free on line along with guidelines from NCI, ACS, ASTRO.