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

PGY-2

This rotation provides training in diagnosis, staging and treatment of gastrointestinal malignancies including esophageal, gastric, gall bladder, pancreatic, colorectal and anal cancers.

Patient Care:

- Learn epidemiology, clinical presentation and staging of various GI malignancies.
- Learn imaging and pathologic findings.
- Knowledge of indications for surgery, pre operative, postoperative treatments and definitive chemoradiation.
- Learn set-up for CT simulation, contour the tumor, draining lymph nodes and critical structures.
- Set up treatment fields and learn how to evaluate dosimetry plans.
- Learn acute and long term side effects and how to manage them.
- Knowledge of different treatment techniques including IMRT and brachytherapy.

Medical Knowledge:

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

Practice Based Learning and Improvement:

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

Interpersonal and Communication Skills:

- Ability to explain to the patient and family members different treatment options available and side effects of each modality.
- Able to communicate with other physicians and other health care personnel to coordinate patient care.
Professionalism:

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

System Based Practice:

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

Interpersonal skills/communication:

- Communicate procedural side-effects with the patient and describe their purpose.

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 the PGY-2 level and additionally:

Patient Care

- Further refine history and physical consultation skills including ability to perform pelvic/rectal exams
- Recognize and manage acute and chronic treatment effects of radiation to GI sites 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 brachytherapy procedures (esophageal, biliary, anal and other sites) with help of attending

**Medical Knowledge**

- Develop proficiency in staging of GI malignancies, extent of disease evaluation, and NCCN guidelines by disease site
- Recommend evidence based treatment options and discuss and compare outcomes such as local control rate, survival probability and toxicities associated with the options identified
- Develop basic understanding of other disciplines in oncology including chemotherapy and surgery as related to these disease sites
- Become comfortable with developing presentations for our own department as well as others, including journal clubs
- Begin developing research project to continue during residency with reference to GI malignancies
- 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

PGY-4

Continue development in each of the competencies addressed at the PGY-2 and PGY-3 level and additionally:

Patient Care

- Comprehensively evaluate patients with GI cancers and understand multidisciplinary aspects of patient’s care
- Be able to perform simulation with only observation by attending
- Be able to perform 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
- Develop in-depth knowledge of chemotherapeutic and surgical roles in multi-disciplinary care
- 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
- Understand in-depth concepts in radiation physics, be able to perform calculations, and apply to clinical practice

Practice-based Learning and Improvement

- Refine practice experience through use of chart reviews, M&M and QA monitors to assess performance and management skills in these disease sites
- Where appropriate and with guidance from the mentoring faculty, review GI 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.

Supervision:

One on one by the attending physician

PGY-5

Continue development in each of the competencies addressed at the PGY-2, 3 and 4 level and additionally:

Patient Care

- Independently evaluate patients and report findings to attending mentor and autonomously manage patients with gastrointestinal malignancies undergoing radiation therapy
- Be able to perform standard brachytherapy procedures under observation of an attending. This includes esophageal, bile duct, interstitial anal brachytherapy
- Be able to independently perform simulation, write a clear radiation prescription and devise an appropriate treatment plan with dosimetrist. Be prepared to utilize IMRT, IGRT as necessary, standard 3D or Cyberknife as indicated
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.

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. Understand and refer for RTOG protocols available to patient and any other open trial patient agrees to participate in

Interpersonal and Communication Skills

- Exemplify empathy and conscientious attention to patient/family related concerns surrounding their cancer care and management

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:

- 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