VA Medical Center Rotations

Goals and Objectives

Therapeutic radiology residents spend three, three month blocks working with faculty at the Minneapolis VA Medical Center. The major sites seen at the VA are Prostate, Head and Neck and Lung. The resident will also encounter malignancies including GI, CNS, lymphoma, breast, and skin. To get the most out of this rotation, it is encouraged that the resident focuses their learning (and night-time reading!) on several of the major sites seen at the VA. Flexibility in focusing on other sites can be addressed on an individual basis. The resident’s responsibilities are gradually increased during the period of training according to the discretion of the staff physician.

Responsibilities:

1. Except for teaching sessions at the University, residents are expected to be present in the department during normal operating hours of 8AM until 4:30PM or until the last patient has completed their treatment (whichever is later). If patient treatments are completed early, then the resident may leave early with approval of the supervising attending.
2. The resident will be assigned to work with Dr. Xin Wang in the OR on one or two Thursdays a month while at the VA. On these days only, the resident will be excused from all clinical responsibilities pertaining to external beam radiotherapy patients at the VA.
3. Residents are expected to attend all tumor boards with their supervising physician.
4. It will be expected that the resident be able to follow and participate in the planning of cases seen for consultation and simulation. However, there may be times when increased departmental workload or offsite learning commitments at the University may adversely affect the ability to follow the development of a patient’s treatment plan in real time. Residents are encouraged to review such cases with the responsible attending at the later date.
5. Contouring – Residents will be expected work together with their supervising attending to complete contouring of radiotherapy volumes and normal tissues by end of the next business day following CT simulation.
6. Medical Documentation- Residents are strongly encouraged to dictate all consultation notes (i.e. H and P’s.). Simulation notes, treatment summary notes, OTV notes, and follow-up notes may be entered manually into CPRS. It is expected that the treatment summary note be completed within 1 week of the end of treatment. Templates are available for simulation and treatment summary notes.
7. Evaluation- this will consist of observations of resident performance during the rotation and an end-of rotation oral exam based on specific learning objectives specified by the resident at the start of the rotation.

First Block (Year 1 or 2):

Upon completion of this rotation residents are expected to:

- Patient assessment- obtain H and P’s tailored to the patient’s diagnosis and stage.
- Appropriate utilization of imaging and laboratory investigations for the staging and work-up of patients.
- Understand the role of radiotherapy in palliative cases (bone metastases, brain metastases, spinal cord compression, SVCO, mediastinal RT for lung cancer) (PC, MK, PBLI).
• Understands the roles that are taken by surgeons, medical oncologists, diagnostic radiologist and radiation oncologists in the multi modality approach to prostate cancer (PC, MK, SBP)
• Understand the General approach to assessment and management of the following types of prostate cancer: Localized-disease, Locally-advanced disease, Metastatic disease
• Understand the prognostic factors and staging of prostate cancer.
• Understanding and appreciation of the role for surgery, hormonal therapy and/or observation
• Effects of radiotherapy on normal tissues and organs of the pelvis
• Understand and appreciate the role of other treatment modalities e.g. Surgery, chemotherapy, hormonal therapy (PC, MK).
• Understand head and neck anatomy (MK)
• Perform the initial assessment of patients with head and neck malignancies (PC, MK, CS)
• Understand the effects of radiotherapy on normal tissues and organs of the head and neck (PC, MK, PBLI).
• Understand the natural history, prognostic factors, and staging of head and neck cancer (PC, MK)
• Understand the pathologic classification of lung cancer
• Understand the Staging of lung cancer
• Understand the role of surgical management and chemotherapy in the treatment of lung cancer.
• Understand the prognostic factors in lung cancer
• Understand the effect of radiotherapy on normal tissues and organs of the mediastinum

Second Block (Year 2 or 3):

• Develop an overall plan for management in collaboration with other members of the multidisciplinary team (i.e. surgical oncologists, medical oncologists) (PC, MK, SBP).
• Communicating with patients and their families – discussing diagnosis and prognosis, discussing results of tests, discussing results of tests, discussing management options and obtaining informed consent (PC, MK, CS).
• Understand the natural history, prognostic factors, and staging of head and neck malignancies (PC, MK, PBLI).
• Perform indirect laryngoscopy and fiberoptic laryngoscopy (PC, MK)
• Understand the WHO classification of Hodgkin’s lymphoma and non-Hodgkin’s lymphoma (PC, MK, SBP)
• Pathologic assessment including role of immunohistochemistry (PC, MK, PBLI)
• Staging of Hodgkin’s lymphoma and non-Hodgkin’s lymphoma (PC, MK, PBLI)
• Understand the prognostic factors of Hodgkin’s and non-Hodgkin’s Lymphoma (PC, MK, PBLI)
• Understand the role of chemotherapy in management of Hodgkin’s lymphoma
• Understand Role of CHOP chemotherapy in management of Diffuse large cell lymphoma
• Understand the assessment of Response to treatment
• Understand the long-term effects of treatment in Hodgkin’s lymphoma patients (PC, MK, PBLI)
• Perform Simulation and Treatment Planning for prostate cancer:
  • 4-Field Box
  • 3D conformal planning
  • IMRT
- Locally-advanced disease
- Post-op Prostate

- Perform the following Clinical and Technical Skills for lung cancer:
  - 4D CT simulation,
  - Treatment Planning including (PC, MK, PBLI):
    i. AP-PA parallel pair
    ii. Off-cord techniques
    iii. 3D conformal planning for lung
  - ITV-based treatment planning

- Understand Techniques for simulation and treatment planning for head and neck cancer:
  - POP larynx-T1/T2 vs. T3/T4 N0,
  - 3-Field Head and Neck
  - Off-cord techniques and matching electrons and photons
  - Ipsilateral-treatment techniques
  - Post-op head and neck fields

**Third Block (Year 3 or 4):** Upon completion of this rotation the resident expected to:

Understand more advanced techniques for treatment planning of head and neck cancer including (PC, MK, PBLI):

- Planning and Evaluation of IMRT treatment plans (PC, MK, PBLI)
  - RT for oropharynx CA
  - RT for laryngeal and supraglottic CA
  - RT for oral cavity CA
  - RT for Paranasal sinuses
  - RT for Hypopharyngeal CA (Posterior pharyngeal wall lesions and Disease extending to the root of the neck)

Perform Treatment Techniques for lymphomas including: Mantle field, STLI and matching fields, Inverted Y, Involved-field RT and RT for Waldeyer’s ring (PC, MK, PBLI)

*For this rotation, I have reviewed the Brachytherapy procedures: Curator and Checker Source Preparation, Loading, and Logging. Low Dose Rate Implant Emergency Procedures.*