

ROTATION: PGY2_BRACHY_CYCLE2

YEAR: PGY2

TIMEFRAME 2 MONTHS (OCT - NOV)

MENTORS: IAN BUTTERWICK

OVERVIEW:

During the Brachytherapy Cycle 2 rotation, the resident will learn, assist with and gain direct experience with a broad range of aspects with LDR Prostate Seed Brachytherapy and Intra-Vascular Brachytherapy (IVBT) procedures. In addition to clinical training, didactic readings will also be required.

CLINICAL OBJECTIVES:

- 1) Understand Well chamber Constancy checks, source handling, Performing source leak checks, Source Inventory and Radiation Surveys with LDR and IVBT sources
- 2) Observe and assist with Pre-Op, Intra-Op and Post-Op LDR prostate seed plans
- 3) Observe and assist with Intra-Op LDR prostate seed implants
- 4) At the discretion of the mentor, create three non-clinical LDR Pre-Operative plans and evaluate the dosimetry
- 5) Create two plans wherein one utilizes one source such as I-125 and another plan uses Pd-103 or Cs-131. Compare results and discuss differences with mentor
- 6) Participate in LDR seed calibrations prior to prostate seed implant
- 7) Be familiar with US QA for Prostate Seed Brachytherapy
- 8) Observe and assist with at least two IVBT treatments

DIDACTIC READINGS:

- 1) AAPM TG137: AAPM Recommendations on Dose Prescription and Reporting Methods for Permanent Interstitial Brachytherapy for Prostate Cancer
- 2) AAPM TG128: AAPM Quality Assurance tests for prostate brachytherapy ultrasound systems
- 3) AAPM TG149: Dose Calculation Formalisms and consensus dosimetry parameters for intravascular brachytherapy dosimetry

COMPETENCY:

At the conclusion of the rotation, the level of competency demonstrated by the resident will be evaluated by the mentors completing evaluation forms. If the scores on the evaluation forms are below the acceptable level, the mentor(s) will notify the residency program director for further guidance.