

## **Goals & Objectives CanMeds**

### **Rotation: Interventional Radiology**

**VGH**

**899 West 12th Ave., Vancouver, BC V5Z 1M9**

**Total:** Junior/Senior Residents

**Rotation Supervisor:** Dr. John Chung

This rotation offers the opportunity for radiology residents to participate in i.) the protocoling, interpretation, and reporting of vascular CT and MRI studies; ii.) all body interventional radiology (IR) procedures in the Department of Radiology at VGH; and iii.) the numerous clinical working and multidisciplinary rounds that the IR section is a part of. The IR fellows and attendings will supervise resident activities. At the onset of the rotation, residents will not be expected to perform any interventional procedures as a primary operator but, as they gain experience, they may assist the interventionalists with these procedures. The number of cases to be done by residents will depend upon their level of ability and experience as well as the caseload on that particular day. Teaching and supervision in IR is intense; the attending will always be available when the resident performs and dictates cases.

Most of what the resident will learn in IR will be from his/her experience in performing the procedures, supplemented by teaching and reading. If a resident wishes to take a second two months in IR in her/his senior year (and this is recommended for those who anticipate they will be performing image-guided interventions in their radiology careers), they will then have the opportunity to perform basic IR, e.g., central venous catheter insertions, as the primary operator.

### **Medical Expert:**

- *Demonstrate an understanding of the role that non-invasive imaging plays in the diagnosis of a variety of vascular pathologies, including the nuances of protocoling and interpreting such imaging*
- *Demonstrate diagnostic and therapeutic skills for ethical and effective patient care*
- *Access and apply relevant information to clinical practice*
- *Demonstrate effective consultation services with respect to patient care and education*

By the end of two months, the resident should have sound knowledge of vascular CT and an introductory understanding of vascular MR with respect to the protocoling, acquisition, interpretation, and reporting of such studies. The resident should also possess a solid understanding of the techniques for performing image-guided vascular (venous and arterial) access, central venous catheter insertion, hemodialysis circuit assessment and therapy, and basic visceral/peripheral angiography.

The resident should also have a basic background understanding of the common interventional treatments such as angioplasty/stenting, embolization, IVC filter insertion, and the variety of interventional oncology procedures performed (including thermal ablation of neoplasias, TAE, TACE, and Y90 SIRT).

After hours callback is optional. Emergency IR can often be an intense and interesting aspect of IR. If the resident is particularly interested, she/he is welcome to participate in some of these cases. If the resident chooses to do a second two months in IR (and she/he should do so if planning on performing IR in their radiology careers), she/he should participate in the IR callback. This will allow the resident to gain some experience and expertise in performing emergency procedures such as therapeutic embolization of trauma cases, GI bleeds, etc.

### **Communicator:**

- *discuss interpretation of vascular imaging studies in a timely manner with the IR attending after an attempt has been made to interpret the findings*
- *accurately convey salient findings on vascular imaging studies to the appropriate clinical care teams in a timely fashion*
- *establish therapeutic relationship with patients/families*
- *obtain and synthesize relevant history from patients/families/communities*
- *listen effectively*
- *discuss appropriate information with patients/families and the health care team*

For all vascular CT/MRI studies that the resident claims for reporting, she/he should make a decent effort at interpreting the findings, review with IR attendings to ensure accuracy, and confer pertinent findings to the necessary care teams. The resident doing a rotation in IR is to see and obtain informed consent from all patients on whom she/he is performing a procedure beforehand.

The resident will report all IR procedures that she/he performs under the supervision of the attending IR.

### **Collaborator**

- *consult effectively with other physicians and health care professionals*
- *contribute effectively to other interdisciplinary team activities*

Regarding interventional cases, as the resident gains experience in performing them, she/he will begin assisting the attending radiologist or interventional fellow in doing interventional procedures. The resident may do basic procedures on his/her own (at the discretion of the attending radiologist) during a second rotation in IR.

### **Leader**

- *utilize resources effectively to balance patient care, learning needs, and outside activities*

- *allocate finite health care resources wisely*
- *work effectively and efficiently in a health care organization*
- *utilize information technology to optimize patient care, life-long learning and other activities*

### **Health Advocate**

- *identify the important determinants of health affecting patients*
- *contribute effectively to improved health of patients and communities*
- *recognize and respond to those issues where advocacy is appropriate*

### **Scholar**

- *develop, implement and monitor a personal continuing education strategy*
- *critically appraise sources of medical information*
- *facilitate learning of patients, housestaff/students and other health professionals*
- *contribute to development of new knowledge*

IR teaching file: A minimum of two cases per week are to be entered. All cases are to be checked with Dr. Chung.

### **Professional**

- *deliver highest quality care with integrity, honesty and compassion*
- *exhibit appropriate personal and interpersonal professional behaviours*
- *practise medicine ethically consistent with obligations of a physician*

### **Reading List:**

KANDARPA K, MACHAN L. Handbook of Interventional Radiologic Procedures. Wolters Kluwer 2016.

KAUFMAN J, LEE M. Vascular and Interventional Radiology: The Requisites. Elsevier 2013.

VALJI K. The Practice of Interventional Radiology. Elsevier 2011.

GESCHWIND J, DAKE M. Abrams' Angiography: Interventional Radiology. Wolters Kluwer 2013.