

Chest Rotation: St. Paul's Hospital

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Overview:

St. Paul's Hospital is a 600 bed tertiary care hospital and the only hospital in downtown Vancouver. Major programs in the hospital include cardiovascular, gastrointestinal, chest services, renal and infectious disease. St. Paul's Hospital is the major center in Western Canada for the treatment of HIV patients. A busy obstetric unit is also part of the care delivered by SPH, with over 2,000 deliveries annually.

The SPH radiology department current has 3 CT scanners. 2 of the GE scanners have cardiac capability. The resident on the CT chest rotation at SPH can expect to share 5-6 HRCTs and 10-20 routine CT chests, as well as 10-20 CXRs. The case mix reflects the strengths of the hospital with a combination of in and out patient imaging. A CT body resident and fellow will also be on and the rotating resident will be expected to share cases with their colleagues.

The resident on SPH chest should attempt to review HRCT cases with either Dr. Hague, Dr. Leipsic or Dr. Ellis. Routine CT chests can be reported with the body staff of the day. CXRs can be reviewed with any available staff.

Residents would be expected to review cases independently, consolidate findings, formulate a differential diagnosis and management plan prior to discussing the case with the staff radiologist.

Objectives:

Medical Expert

Develop a knowledge of cross-sectional and multiplanar thoracic anatomy

Understand CT physics, technical parameters of image acquisition and CT related artifacts and how these factors contribute to diagnostic imaging with CT.

Understand thoracic CT protocols with regards to use of IV contrast as well as scan delay timing and CT slice thickness and spacing. Be able to help CT technologists with protocol related questions.

Develop knowledge of thoracic pathologies seen in clinical practice, specifically gain knowledge with regards to interstitial lung disease and the nomenclature utilized in CT chest imaging.

Develop the ability to accurately and rapidly detect pertinent findings on CXR and CT studies of the chest

Develop the ability to integrate findings to form a clinically useful differential diagnosis and offer an appropriate plan for the patient in question

Understand the implications that imaging findings have on treatment and management decisions.

Communicator

Residents are responsible for dictation of accurate, concise and useful reports following discussion of the case with the staff radiologist.

Informing the ordering physician either verbally or otherwise of any time sensitive important findings. (Depending on the level of training this may wait until after review with the staff physician.)

Obtains informed consent for patients in an appropriate fashion

Communicate effectively with patients, families and other health professionals.

Collaborator

Discussion of cases with healthcare teams, including nurses and technologists, applying the radiologic findings to help guide patient management. Fulfills a consultant role (for level of training)

Help coordinate preparation and cases for Friday afternoon multidisciplinary case conference.

Share interesting cases with fellows and other residents at SPH.

Manager

The volume of cases interpreted per day is in keeping with the level of training. PGY-2: 10 cases/day. PGY-3: 10-15/day, PGY-4&5: 15+/day

Reports are dictated, accurately edited and signed off in an expedient fashion

Develop ability to manage daily workflow in the department, including prioritization, protocoling and triage of cases, physician consultation and supervising of day-to-day operation

Health Advocate

Develop an understanding of the risks and benefits of various imaging studies. Application of this knowledge to alter imaging protocols to limit risk when deemed necessary. Gain an understanding of the appropriate use of imaging studies and rationalization of use of imaging resources

Scholar

Develop the ability to utilize the radiological literature to help guide diagnostic decisions and management recommendations in an evidence based fashion appropriate to the level of training

Continued self-directed learning: reading around cases and topics, including teaching other residents and students.

Professional

Interaction with support staff, nurses, clinical teams and staff in a professional fashion

Development of insight into one's personal strengths and weakness in a given area of radiology and acceptance of constructive criticism/guidance to help improve areas of weakness

Demonstration of satisfactory attendance, punctuality, work ethic, reliability expected of a radiology resident.

Reading List:

1. Fundamentals of Diagnostic Radiology. Brant and Helms
2. Anatomy in Diagnostic Imaging. Fleckenstein
3. Fundamentals of Body CT. Brant
4. Primer of Diagnostic Imaging. Weissleder
5. Thoracic Imaging. Webb and Higgins
6. Imaging of the Chest. Muller and Silva
7. www.str.org (society of thoracic radiology has many excellent lectures in the education section)
8. Hansell DM et al. Fleischner Society: Glossary of Terms for Thoracic Imaging. Radiology 2008; 246 (3): 697-722

Rounds:

Noon rounds daily (except Wednesdays) SPH radiology library

Monday 7am.: Ortho rounds (SPH library) (optional)

Tuesday 8am: **Chest rounds** (8a Providence building)

Wednesday 5pm: Grand rounds

Thursday 730am: GI rounds (GI conference center)

Friday 1pm: **Resp/Rad/Path** Chest rounds (Gourlay conference center)