

Radiology Field Trips

The purpose of this exercise is to enhance your month during your radiology rotation with targeted learning experiences. Whether or not you have an interest in radiology, we hope to provide opportunities that will benefit you in your chosen field of practice. Each field trip has an associated question or learning objective. Please complete this form and return at the end of the rotation.

Chest Radiology

- *Observe the acquisition of a chest radiograph.*
- Describe the difference between AP and PA projections and how does this affects apparent heart size.
- Identify normal anatomy on frontal and lateral chest radiographs.
- Accurately identify lines and tubes on a chest radiograph and explain their proper positioning.

CT/Contrast

- *Observe a contrast enhanced CT scan from patient arrival to end of exam.*
- *Review protocols for commonly ordered studies.*
- Describe patient preparation, screening procedure (renal function and allergy), and imaging time of the study.
- Explain advantages and disadvantages of using intravenous contrast.
- Define clinical scenarios in which intravenous contrast is not required.
- Describe one radiation reduction technique.
- Describe several types of contrast reaction and explain the relative severity of each.

MRI Safety/Musculoskeletal

- *Watch an arthrogram and follow the patient to the MRI suite. Spend time with the MRI techs while they scan the patient.*
- *Alternatively observe any other MR procedure*
- *Review the MRI safety module.*
- *Review and attach a copy of the MRI screening sheet to this form.*
- Explain the MR safety zones.
- Describe patient preparation, screening procedure, and imaging time of the MR examination.
- Name common metal implants that are contraindicated for MRI studies.
- Describe patient factors (claustrophobia, patient motion, respiratory motion, etc.) which may affect image quality and possible solutions to these problems.

Ultrasound/CT Procedures

- *Observe an US/CT guided drainage (paracentesis/thoracentesis)*
- *Observe a US/CT guided biopsy*
- Explain the advantages of image guidance biopsy with an on-site pathologist
- Describe patient preparation, consent process and common complications of image-guided procedures.
- Compare the pre-procedure laboratory work-up for a superficial biopsy vs. a deep biopsy.
- Describe the appropriate procedure for removal of a percutaneous locking (pigtail) catheter.

Fluoroscopy

- *Observe a modified barium swallow and learn how the Speech Pathologists assess for aspiration.*
- Compare and contrast a modified barium swallow and esophagram and describe the proper indications for both exams.
- Compare and contrast a single-contrast esophagram and a double-contrast esophagram.
- Explain the role of gas for a double contrast study.
- Describe the role of premedication for contrast allergy in the setting of oral contrast studies.
- Explain the two primary categories for positive enteric contrast and describe their common indications and contraindications.
 - Barium:
 - Water soluble (iodine-based)

Neurology Procedures

- *Observe several neuroradiology procedures (lumbar puncture, myelogram, neuro angiogram).*
- Describe the indications for the use of image-guided lumbar puncture.
- Explain the work-up needed prior to a lumbar puncture and associated contraindications.
- Describe the complications of a lumbar puncture.

Mammography

- *Observe screening and diagnostic mammograms.*
- Compare and contrast indications for a diagnostic mammogram over a screening mammogram.
- Describe the standard screening mammographic views.
- Explain the additional views obtained in a diagnostic mammogram and their general purpose.
- Describe BIRADs nomenclature and explain its relationship with cancer risk and appropriate patient follow-up.

Getting Your Patient Primed for Interventional Radiology

- *Observe venous access procedures.*
- Describe the patient preparation for these procedures.
- Compare and contrast approaches to central venous access (PICC vs. internal jugular/subclavian access) and their relative indications.
- Obtain the anticoagulation parameters packet and discuss the coagulation requirements for various procedures.

Nuclear Medicine and PET-CT

- *Observe a PET-CT or other nuclear study (i.e. bone scan, HIDA, etc) from patient preparation to image acquisition to dictation.*
- What is the radiotracer utilized in PET imaging:
- Describe patient preparation for PET-CT.
- Explain the role of both the PET and the CT portion of this examination.