Neuroradiology Rotation

Resident Level: PGY-2

Setting: Residents will be trained to critically evaluate the indications for, interpretation of, and scientific underpinnings of neurological imaging studies under the auspices of the neuroradiology division.

Goals:
- Become familiar with the utility of and the basic fundamentals of various imaging modalities used in evaluation of neurological patients.
- Understand the nuances of ordering studies including contrast usage.
- Experience the professional interaction of neuroradiology with other services, including neurology.
- Understand the importance of patient history and consultation in the ordering and interpretation of studies.
- Review neuroradiology examples of neurological pathology and anatomy through attendance of readout sessions, case review, and recommended reading.

Objectives:
- Become familiar with the utility of and the basic fundamentals of various imaging modalities used in evaluation of neurological patients.

Patient Care and Medical Knowledge:
- Understand the associated risks of CT and MRI imaging including:
  - Radiation dose issues
  - Safety issues with MRI
  - Contrast risks
- Understand the uses for advanced imaging techniques such as, but not limited to: MRA, MRV, MR Spectroscopy, CTA, CTV, CT and MR perfusion imaging.

Systems-based Practice:
- Understand the relative costs of imaging modalities.
- Understand the differences including advantages and disadvantages of different CT and MR systems.

Practice Based learning and Improvement:
- Participate in the education of neurological disease and practice to Radiology residents and neuroradiology fellows.
• Understand the nuances of ordering studies including contrast usage.

Patient Care and Medical Knowledge:
Be able to access and describe the use of the ACR appropriateness criteria.
Understand the differences between various common neurology orders:
- MRI, MRA, MR spectroscopy, CT, CTA.
Be able to describe the utility of contrast usage in common entities.

Professionalism, Communication Skills
Understand the role of the neuroradiologist as a consultant to obtain the
most appropriate study for patient care.

Systems-based Practice:
Understand the system issues when unclear or inappropriate imaging
orders are submitted.
Discuss methods to improve system issues related to order entry.

• Experience the professional interaction of neuroradiology with other services,
including neurology.

Professionalism, Communication Skills, Systems-based Practice
Describe examples of positive and negative interactions of health care
teams.

• Understand the importance of patient history and consultation in the ordering and
interpretation of studies.

Professionalism, Communication Skills, Systems-based Practice
Describe the utility of history and consultation in obtaining pertinent and
accurate interpretation of imaging studies.

• Review neuroradiology examples of neurological pathology and anatomy through
attendance of readout sessions, case review, and recommended reading.

Patient Care and Medical Knowledge:
Attend daily readout sessions with the neuroradiology team.
Review the on-line neurology/neuroradiology syllabus.
Review teaching files in neuroradiology.
Help to obtain cases and prepare for the biweekly
neurology/neuroradiology conferences.