

Pediatric Neuroradiology Fellowship - Goals and Objectives

DEFINITION OF PEDIATRIC NEURORADIOLOGY

Pediatric neuroradiology is the organ/system-based subspecialty of Diagnostic Radiology dedicated to diagnosis of disorders and diseases of the central nervous system in children utilizing different imaging techniques.

GOALS

- Upon completion of training, the fellow is expected to be a competent specialist in Pediatric Neuroradiology capable of assuming a consultant's role in the subspecialty.
- Fellows must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centered care and service to a diverse population.

TRAINING YEAR SPECIFIC OBJECTIVES

1) Medical Expert:

- 1.1) Define indications for computed tomography (CT) and magnetic resonance (MR) imaging examinations in children suspected or known neurologic and neurosurgical pathology.
- 1.2) Recognize and describe imaging findings on MR and CT examinations performed in pediatric neuroradiology and correlate to the appropriate clinical context.
- 1.3) Describe the MR and CT techniques to carry out optimized examinations to investigate pediatric neurological disorders.
- 1.4) Identify patients that may require sedation or general anesthesia and explain indications and contraindications.
- 1.5) Describe indications for the use of contrast agents including benefits and risks.

2) Communicator:

- 2.1) Explain the imaging techniques to the patient/family, including the risks of possible complications, and for answering questions that may arise.
- 2.2) Write effective and high quality reports on clinical cases and discuss inpatient reports with clinicians including showing appropriate images.
- 2.3) Summarize department procedures for notification of critical results and how to document these.

Last revised February 17, 2021

3) Collaborator:

- 3.1) Review and discuss pediatric neuroradiology cases brought to attention by clinicians on a daily basis.
- 3.2) Obtain the appropriate history to guide decisions regarding the best imaging strategy to pursue imaging investigation.
- 3.3) Forward requests for further imaging to imaging technologists.
- 3.4) Present at interdisciplinary clinical rounds on a regular basis including Neurooncology, NICU and SCAN rounds.

4) Manager/leader:

- 4.1) Prioritize, screen and protocol neuroradiologic examinations.
- 4.2) Organize and monitor neuroradiology cases, including proper delegation of authority to residents and technologists.
- 4.3) Supervise residents on call under the supervision of the staff neuroradiologists.

5) Health Advocate:

- 5.1) Select appropriate tests or follow-up studies from discussion with referring practitioners.
- 5.2) Consider the benefits/risks of procedures, in consultation with referring practitioners.
- 5.3) Guide and teach referring clinicians to the imaging study or studies most appropriate for their patients.
- 5.4) Discuss basic radiation doses in CT and when a low-dose protocol is indicated.

6) Scholar:

- 6.1) Teach residents during clinical work on an everyday basis.
- 6.2) Participate in research, including review of the relevant literature, development of methods, analysis and discussion of the results, using basic statistics.
- 6.3) Prepare a scientific oral presentation, a poster, an abstract or a manuscript.
- 6.4) Prepare and deliver didactic or scientific talks, including one formal lecture to the department for every 6 months of fellowship training.

7) Professional:

- 7.1) Incorporate ethical practice, respect of differences, professional regulation and high personal standards of behaviour.
- 7.2) Act as part of a team including helping out when other fellows need extra help as may arise with a personal emergency.

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