

Rotation Specific Objectives for Neuroradiology: CanMEDS

1. Medical Expert/Clinical Decision-Maker

Demonstrate diagnostic and therapeutic skills for ethical and effective patient care; Access and apply relevant information to clinical practice; recognize personal limits of expertise. Knowledge requirements:

Knowledge:

- A) Basic neuroanatomy and neuropathology sufficient to understand imaging findings
- B) Pharmacology including the use of Gadolinium, CT/X-ray contrast dyes, and nuclear medicine isotopes: principles of metabolism, action and toxicity
- C) Diagnostic tests: order appropriate tests in a cost-effective, ethical and useful manner
- D) Interpretation of basic x-ray films, CT, MRI, angiography, ultrasonography and radionuclide studies
- E) Clinical diagnosis and decision-making: formulate diagnosis and therapeutic strategy for neurosurgical problems based on imaging data
- F) Documentation / presentation: well-documented and organized assessments of imaging studies
- G) Preoperative imaging: understand the concept; order appropriate preoperative investigations to assist in planning and execution of preoperative plan
- H) Evidence-based practice: aware of the role of evidence in medical imaging. Able to access, retrieve and apply relevant information
- I) Use of imaging equipment: understand its use, recognize the role of, and appreciate safety measures required to protect patients, self and other personnel from ionizing radiation
- J) Learn the basic principles and techniques used to perform cerebral angiography
- K) Gain exposure to and understanding of endovascular neurosurgery techniques used in the treatment of intracranial vascular disorders

2. Communicator

Requirements:

- A) Recognize that being a good communicator is an essential function of a physician, and understand that effective patient-physician communication can foster patient satisfaction and compliance as well as influence the manifestations and outcome of a patient's illness and surgical intervention
- B) Establish relationships with the patient that are characterized by understanding, trust, respect, empathy and confidentiality
- C) Recognize the emotional stress for patients and families faced with neurosurgical conditions, a stress accentuated in the treatment of children
- D) Gather information not only about the disease but also about the patient's beliefs, concerns and expectations while considering the influence of factors such as the age, gender, ethnic, cultural, spiritual and socioeconomic background
- E) Deliver information to the patient and family in a humane manner and in such a way that it is understandable; encourage discussion and promote patient's participation in decision-making

- F) As a prelude to interventional procedures use above skills to obtain informed consent; appreciate alternative means of achieving consent if the patient is incompetent to provide consent
- G) Understand and demonstrate the importance of cooperation and communication among health professionals involved in the care of individual
- H) Maintain clear, accurate and appropriate written records

3. Collaborator

Requirements:

- A) Consult effectively with other physicians and health care professionals
- B) Contribute effectively to other interdisciplinary team activities

4. Manager

Requirements:

- A) Utilize resources effectively to balance patient care, learning needs, and outside activities
- B) Allocate finite health care resources wisely
- C) Work effectively and efficiently in a health care organization
- D) Utilize information technology to optimize patient care, life-long learning and other activities

5. Health Advocate

Requirements:

- A) Demonstrate knowledge of determinants of health by identifying the important determinants of health (i.e., poverty, unemployment, early childhood education, social support systems)
- B) Contribute effectively to improved health of patients and communities
- C) Recognize and respond to issues where advocacy is appropriate

6. Scholar

Requirements:

- A) Develop, implement and monitor a personal continuing education strategy
- B) Critically appraise sources of medical information
- C) Facilitate learning of patients, house staff/students and other health professionals
- D) Contribute to development of new knowledge



7. Professional

Requirements:

- A) Deliver highest quality care with integrity, honesty and compassion
- B) Exhibit appropriate personal and interpersonal professional behaviors
- C) Practice medicine ethically consistent with obligations of a physician
- D) Use appropriate strategies to maintain and advance professional competence
- E) Continually evaluate his/her abilities, knowledge and skills and know his/her limitations of professional competence