



Rotation Specific Objectives for Neurosurgery Clinic: CanMEDS

1. Medical Expert/Clinical Decision-Maker

Demonstrate diagnostic and therapeutic skills for ethical and effective patient care; Access and apply relevant information and therapeutic options to outpatient clinical practice; demonstrate effective consultation services with respect to patient care, education and legal options; recognize personal limits of expertise.

Knowledge requirements:

Knowledge: Basic Science & Anatomy

- A) Basic neuroanatomy, neurophysiology, and neuropathology sufficient to understand clinical presentation, and management of neurosurgical conditions
- B) Pharmacology including principles of metabolism, action and toxicity of drugs commonly used in neuro surgery

Knowledge: Clinical

- A) Medical history: concise, accurate and appropriate
- B) Physical examination: relevant, sufficiently elaborate, and appropriate
- C) Diagnostic tests: order appropriate tests in a cost-effective, ethical and useful manner
- D) Medical imaging tests: interpretation of basic x-ray, EMG / NCS, CT, MRI and radionuclide studies
- E) Clinical diagnosis and decision-making: formulate diagnosis and therapeutic strategy for neurosurgical problems
- F) Documentation / presentation: well-documented and organized assessments and recommendations
- G) Evidence-based practice: aware of the role of evidence in clinical decision-making. Able to access, retrieve and apply relevant information

Knowledge: Technical

General

- A) Perform complete history and physical exams on the neurosurgery outpatient
- B) Accurate and concise documentaion of the outpatient visit
- C) Understand how basic neurology, neuropathology, and neuroradiology applies to the outpatient neurosurgery clinic

Subspecialty Requirements:

- A) Neuro-Oncology
 - Understand the outpatient management, diagnosis and care of patients with neuro-oncology problems
- B) Cerebrovascular
 - Understand the outpatient management, diagnosis and care of patients with cerebrovascular disorders



C) Trauma

- Understand the outpatient management, diagnosis and follow-up care of patients with head injury

D) Spine & Peripheral Nerve

- Understand the outpatient management, diagnosis and care of patients with spine and peripheral nerve disorders

E) Functional

- Understand the outpatient management, diagnosis and care of patients with functional neurosurgery disorders problems such as pain, spasticity, epilepsy and movement disorders

F) Pediatrics

- Understand the outpatient management, diagnosis and care of patients with pediatric neurosurgery problems
 - Ability to examine infants and children
 - Becoming familiar with neurosurgical diseases commonly affect children including hydrocephalus, spinal dysraphic disorders, craniosynostosis, tumors more unique to children.
 - Learn in detail to diagnose and manage hydrocephalus and its surgical treatments and complications in children

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 surgical intervention 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
- I) Complete concise hospital discharge summaries promptly
- J) Write well-organized letters, providing clear direction to the referring physician and other physician and allied personnel



3. Collaborator

Requirements:

- A) Describe the role, expertise and limitations of all members of an interdisciplinary team required to optimally achieve a goal related to patient care, a research problem, an educational task, or an administrative ability
- B) Develop a care plan for a mutual-interest patient, that includes investigation, treatment and continuing care in both hospital and community settings
- C) Participate in an interdisciplinary team, demonstrating the ability to accept, consider and respect the opinions of other team members, while contributing specialty-specific expertise

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) Demonstrate knowledge of these concepts as applied:
 - In the management of individual patients, by identifying the patient's status with respect to one or more of the determinants of health; adapting the assessment and management accordingly; and assessing the patient's ability to access various services in the health and social system.
 - In relation to the general population by describing the key issues currently under debate regarding changes in the Canadian health care system indicating how these changes might affect societal health outcomes particularly when relevant to neurosurgery

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