

Paediatric Neurology - Rotation Objectives

Revised: Feb 26, 2024

Duration: 4 weeks

Timing During Residency: R2 and R3-4 Years of Training

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Education Coordinator: Emily Girard

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Location(s): University of Alberta Hospital

Pre-rotation responsibilities: The resident is expected to contact Rotation Coordinator 2 weeks prior to rotation start to arrange orientation meeting, rotation expectations, timing of mid-point and exit evaluations.

Call responsibilities: Paediatric neurology call.

Expectations:

- complete resident rounds prior to staff rounds at 9:30am
- signover should occur from the resident on-call the night prior, at 7:45 to 8 am daily (by phone or in person) and 9 am on weekends
- evening signover to the resident on call should occur by phone or in person at 5 pm daily
- attend clinics and see inpatient consults as specified by the preceptor
- write daily progress notes for inpatients
- dictate clinic letters the same day as the appointment
- inform Rotation Coordinator and preceptor of expected or unexpected absence
- complete all rotation objectives as specified by Rotation Coordinator
- discuss individual learning goals with Rotation Coordinator
- provide a verbal and/or written description of his or her self-performance on the rotation at the mid-point evaluation and at the end of the rotation

CanMeds 2015 objectives:

Medical Expert

The resident will acquire medical expertise and move toward competency in clinical decision making, and interpreting diagnostic tests, while demonstrating compassion, as well as an understanding of the complexity, uncertainty and ambiguity in clinical decision making. The resident will progress in their understanding of the importance of continuity and duty of care. The resident will

move toward competence in procedural skill proficiency specific to the practice of neurology and the administration of therapeutic interventions.

Communicator

The resident will move toward competency through accurate, empathetic and efficient communication of medical diagnoses and treatment options to patients and families while gaining and maintaining rapport. This includes breaking bad news and discussing goals of care in acute and chronic neurological scenarios and ensuring informed consent for all diagnostic and management decisions.

Collaborator

The resident will move toward competency by effectively working with community providers and interprofessional teams, ensuring clear handovers, providing constructive consultations and making clear and appropriate referrals that include shared decision making and constructive negotiation. The resident will use strategies for conflict resolution that take into account different team dynamics.

Leader

The resident will move toward competency in the equitable provision of healthcare with consideration of justice and effectiveness in the allocation of health resources. The resident will gain competency in the use of information technology. Consideration will be made toward neurologists' roles and responsibilities in the community, with focus on quality improvement and efficient provision of neurologic care, stewarding health care resources.

Health Advocate

The residents will move toward competency by adapting clinical practice and mobilizing resources such that it balances the needs of individual patients with those of the wider community. While seeing a patient, consideration will be made of disease prevention and determinants of health including psychological, biological, social, cultural, environmental, educational, economic and health care system factors.

Scholar

Residents will move towards competency by applying scientific principles to the interpretation of evidence-based medicine and translation to practice, recognizing potential sources of bias. Residents will become role models for other trainees, hone their teaching skills, and incorporate self-evaluation strategies as part of life long learning.

Professional

Residents will move towards competency in the commitment to patients, society and the physician/neurologist profession, aspiring to excellence in care delivery. In their daily work, they will be altruistic, honest and compassionate towards self and others. Residents will respect diversity, professional boundaries, demonstrating insight into personal behaviours and self-limitations. Residents will

be committed to the “public good”, being socially accountable to the societal healthcare “contract”, the residency program, PARA, hospital, Royal College, and College of Physicians and Surgeons of Alberta. Residents will identify potential conflicts of interest (personal, financial and administrative) and potential medical-legal implications of health care delivery.

ROTATION SPECIFIC Objectives Paediatric Neurology rotation:

Through the rotation the resident will acquire and demonstrate competence in the following areas, preferably by direct observation of the preceptors. Residents are encouraged to complete EPAs as a means of documenting areas where competence was obtained.

1. Clinical features, presenting signs and symptoms, natural history, and prognosis, for the major neurologic disorders that present in children including:
 - a. Neurocutaneous disorders
 - b. Developmental disorders of the nervous system
 - c. Vascular disorders
 - d. Pediatric epilepsies and epilepsy syndromes
 - e. Inborn errors of metabolism
 - f. Headache disorders
 - g. Cranial neuropathies
 - h. Movement disorders
 - i. Neuromuscular disorders
2. Neurological manifestations of major systemic disorders including:
 - a. Cardiovascular disorders and complications of cardiac surgery
 - b. Hepatic and gastrointestinal disorders including complications of liver transplantation
 - c. Renal disorders and complications of renal transplant
 - d. Endocrine disorders and electrolyte disturbances
 - e. Infectious disorders of the nervous system and other systemic infections. Major bacteria causing nervous system infections including classification, staining characteristics, and antibiotic sensitivities.
 - f. Neoplastic disorders, paraneoplastic disorders, and the neurological complications of chemotherapy and radiation therapy
 - g. Major neurotoxicologic agents and their effects
 - h. Rheumatological disorders and complications of immune therapy

3. Take history and perform an appropriate general physical and neurological exam with respect to the patient's age, mental state and developmental status.
 - a. Neonatal examination (term and preterm)
 - b. Pre-school child neurological examination
 - c. School-aged child neurological examination
 - d. Adolescent or adult neurological examination
 - e. Neurological examination of the comatose patient
4. Role of surgery in the therapy of neurological disorders including indications and contraindications for its use
5. Role of rehabilitative medicine in the treatment of neurological disorders
6. Basic mechanisms of chromosomal division, and chromosomal abnormalities seen in the major neurological disorders that result from disturbances in these mechanisms
7. Patterns of inheritance, where known, of neurological disorders the principles underlying and the diagnostic value of gene localization
8. Biochemical basis for the major neurologic syndromes resulting from inborn errors of metabolism
9. Witnessed communication with patients/families about diagnosis, management recommendations
10. Provide clear, informative and legible consultation reports to requesting service, including direct discussions of recommendations with referring service
11. Provide follow-up through both clearly written progress notes and verbal communication and clear sign-off for all consults

Entrustable Professional Activities (EPAs)

C1 - Assessing and managing patients acute neurological illness

- Focuses on diagnosis and comprehensive management of patients in any acute care of patients in any acute care setting, such as the emergency department, intensive care unit or inpatient ward. Includes performing the

clinical assessment, localizing the lesion, developing and prioritizing a differential diagnosis, ordering and interpreting investigations, and treating patients.

C4 - Performing specialized neurological examination techniques and procedures

- Focuses on the performance of focused neurological examinations and specialized techniques. May be observed in simulation.