McGill University Department of Neurology & Neurosurgery

Pediatric EEG/Epilepsy Fellowship, 1 and 2-year

Location: Montreal Children's Hospital/McGill University Health Centre Glen Site (with some time also spent at the Montreal Neurological Institute)

Fellowship Program Director: Dr. Kenneth Myers
(e-mail kenneth.myers@mcgill.ca, phone (514)412-4446)

Duration: 1 or 2 years. The one-year fellowship has a heavier focus on clinical training and less time to pursue research projects.

Funding: For information on salary and acceptable sources of funding, please visit http://www.mcgill.ca/pgme/admissions/prospective-fellows.

Capacity: The program will allow up to two fellows, combined from the one- and two-year fellowships, enrolled per year.

Summary of Clinical Training: Fellows will have exposure to a wide variety of clinical pediatric epilepsy presentations, and will become familiar with the range of therapeutic options available. Training will involve the following:

- Reading and reporting scalp EEG studies, including routine and prolonged video EEG and home ambulatory EEG studies.
- Assisting with admission and care of patients admitted for telemetry.
- Attending at least one half-day epilepsy clinic per week.
- Presenting patients at Comprehensive Epilepsy Conference meetings (every 2 weeks)
- Involvement in invasive monitoring procedures including some or all of intra-operative electrocorticography, stereo EEG and grids.
- Vagal nerve stimulator programming and adjustments.
- Ketogenic diet initiation and monitoring.
- EEG rounds every 2 weeks (alternating with Comprehensive Epilepsy Conferences) with epileptologists, residents and EEG technologists, during which complex EEG cases from the past week will be discussed, with a didactic teaching component as well.

Research: Fellows will be expected to complete a research project resulting in at least a presentation at a local or international meeting, and ideally a publication in a peer-reviewed journal. Within the first month of training, the fellow will find a research faculty supervisor and design a project of appropriate scope to allow completion during the training period.

Pediatric Epilepsy Teaching Faculty
- Dr. Marie Emmanuelle Dilenge (EEG, evoked potentials)
- Dr. Kenneth Myers (EEG)
- Dr. Chantal Poulin (EEG, EMG)
- Dr. Elisabeth Simard-Tremblay (EEG)

Evaluation
- Monthly evaluations will be completed with the online evaluation form used by the Child Neurology Residency Program.
- The fellow will be meet with Dr. Myers on a monthly basis to discuss performance and whether training objectives are being met.

CSCN EEG Examination

The Canadian Society of Clinical Neurophysiologists has an annual examination in June, coinciding with the Canadian Neurological Sciences Federation Annual Meeting. Passing this examination is required by many Canadian centres in order to report EEGs. Any fellows planning to write the examination should notify the program director as soon as possible, to ensure training is tailored appropriately to optimize his/her performance.

Specific CanMEDS Objectives

1. Medical Expert/Clinical Decision-Maker
General Requirements
- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice.
- Demonstrate effective consultation services with respect to patient care, education and legal opinions.

Specific Requirements
Provide scientifically based, comprehensive and effective diagnosis and management for patients with epilepsy.
Clinical:
For a patient with epilepsy or allied disorder, the resident will be able to:
- Obtain a complete neurological history from adults and children obtaining a collateral history where necessary
- Perform an appropriate physical examination.
- Determine whether a patient's symptoms and signs are the result of a disorder related to epilepsy.
- Formulate an appropriate localization, differential and provisional diagnosis of epilepsy if appropriate.
- Outline an appropriate plan of laboratory investigation.
- Outline an appropriate therapeutic plan.
- Exhibit appropriate clinical judgment in outlining a differential diagnosis and an investigative and therapeutic plan, taking into account matters such as the patient's age, general health, risk and cost of investigative procedures, risk and cost of therapeutic interventions, and epidemiology of the disease.

Technical Skills
- To learn/review detailed, practical anatomy of epilepsy.
- Other technical skills related to fellowship in EEG.

Knowledge
- Acquire and understand the neuroanatomic principles and pathological substrates of EEG and epilepsy.
- Become familiar with the neurophysiological principles, the basic mechanisms related to epilepsy.
- Learn the major categories or classifications related to epilepsy.
- Learn clinical neuropharmacology related to epilepsy.
- Acquire expertise in the decision making related to epilepsy.

2. Communicator
General Requirements
- Establish therapeutic relationships with patients/families.
- Obtain and synthesize relevant history from patients/families/communities.
- Listen effectively.
- Discuss appropriate information with patients/families and the health care team.

Specific Requirements
Communicate effectively with patients, their families and medical colleagues (particularly referring physicians), and other health care professionals in both the inpatient and outpatient settings. The resident will:
- Communicate effectively and regularly with patients and their families.
- Be considerate and compassionate in communicating with patients and families, willingly provide accurate information appropriate to the clinical situation, with a reasonable attempt at prognosis.
- Learn to write concise reports of the clinical findings with conclusions and recommendations comprehensible to the non-specialist.
- Communicate effectively and appropriately with the nurses and paramedical personnel.
- When ordering investigative procedures, ensure there has been adequate communication about the patient with the person who will actually be doing and/or reporting the diagnostic study.

3. Collaborator
General Requirements
- Consult effectively with other physicians and health care professionals.
- Contribute effectively to other interdisciplinary team activities.

Specific Requirements
Be an effective teacher of other physicians (including medical students and house officers), other health care personnel, and patients. The resident will:
- Provide instruction to medical students and more junior physicians at a level appropriate to their clinical education and professional competence.
- Willingly share knowledge with others with whom they are associated, thus ensuring the most effective delivery of health care to patients.

4. Manager
General Requirements
- Utilize resources effectively to balance patient care, learning needs, and outside activities.
- Allocate finite health care resources wisely.

- Work effectively and efficiently in a health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.

Specific Requirements

Be proficient in professional skills related to the diagnosis and treatment of epilepsy.
Demonstrate the following professional skills in time management:
- Recognize that effective use of time depends upon punctuality.
- Recognize that effective use of time requires planning.
- Develop speed as well as accuracy in clinical skills.
- Reserve time for reading and keeping current with the neurological literature.
- Establish routines for carrying out regular activities and adhere to them.

Maintain complete and accurate medical records:
- Record and maintain a complete and accurate medical record for every patient seen; this record will include the patient's history and the findings on physical examination (including the neurological examination), a differential diagnosis, a provisional diagnosis, Effectively coordinate the work of the health care team.
- Indicate, by the treatment plan, that for the optimal treatment of many patients with neurological disorder, a team approach is necessary -- members of the team may include nurses, rehabilitation personnel (physiotherapists, occupational therapists, speech therapists, etc.), psychologists, social workers, etc.
- Identify where an important role(s) can be played by disease focused lay groups with regard to helping the patient and/or family and to facilitate its happening.

5. Health Advocate

General Requirements

Identify the important determinants of health affecting patients.
Contribute effectively to improved health of patients and communities.
Recognize and respond to those issues where advocacy is appropriate.

Specific Requirements

Learn about community resources and related patient support groups; provide assistance to access programs (e.g. home care, occupational and physiotherapy, drug plans, etc) and participate in their activities.
Educate, be able to generate and access information (e.g. printed material, video tapes web sites) and be available as a resource person to counsel patients effectively on neurological disorders.
Counsel patients on the importance of taking responsibility for their own well-being and recognize the important determinants predisposing to worsening of neurological status
Understand the role of national and international bodies (e.g. ILAE, American Epilepsy Society, AAN) in the promotion of neurological health, and the prevention, detection, and treatment of peripheral nervous system disorders.

6. Scholar

General Requirements

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

Specific Requirements
Be able to critically assess the neurological literature as it relates to patient diagnosis, investigation and treatment:
- Develop criteria for evaluating neurological literature.
- Critically assess the neurological literature using these criteria.
- Be familiar with the design of experimental and observational studies, especially randomized controlled trials.
- Be able to calculate absolute risk reductions, relative risk reductions and numbers needed to treat or harm.
Be able to participate in clinical or basic science studies as a member of a research team:
- Be able to describe principles of good research.
- Use the above principles, and be able to judge whether a research project is properly designed.
- Be prepared to present research findings to peers at local, national or international conferences.

7. Professional
General Requirements
Deliver highest quality care with integrity, honesty and compassion.
Exhibit appropriate personal and interpersonal professional behaviours with patients/families, peer residents and other health care professionals.
Practice medicine ethically consistent with obligations of a physician.
Specific Requirements
Demonstrate personal and professional attitudes consistent with a consulting physician role:
- Periodically review his/her own personal and professional performance against national standards set for the specialty.
- Be willing to include the patient in discussions concerning appropriate diagnostic and management procedures.
- Show appropriate respect for the opinions of fellow consultants and referring physicians in the management of patient problems and be willing to provide means whereby differences of opinion can be discussed and resolved.

Be willing and able to appraise accurately his/her own professional performances and show that he/she recognizes his/her own limitations with regard to skill and knowledge by appropriately consulting other physicians and paramedical personnel when caring for the patient.
Be willing and able to keep his/her practice current through reading and other modes of continuing medical education and develop a habit of maintaining current his/her clinical skill and knowledge base through continuing medical education.