

Anesthesia and Perioperative Medicine
Western University

Neuroanesthesia
Program Director – Dr. Miguel Arango



Please visit the Neuroanesthesia Fellowship site for most up-to-date information:

http://www.schulich.uwo.ca/anesthesia/education/fellowship/fellowships_offered/neuroanesthesia.html

Clinical Fellowship: Neuroanesthesia

The Department of Anesthesia and Perioperative Medicine at Western University offers a one-year, Clinical Neuroanesthesia Fellowship based at London Health Sciences Centre in London Ontario Canada.

London Health Sciences Centre is a national referral centre for the management of patients with cerebral aneurysms and arteriovenous malformations. In recent years, it has been discovered that surgery for Intractable Epilepsy has valuable therapeutic potential and this has resulted in epilepsy surgery becoming one of the “fastest growth areas” in neurosurgery. Patients are done awake but sedated so that their speech and motor areas of the brain can be mapped prior to surgical excision.

The Department of Anesthesia and Perioperative Medicine offers a variety of research opportunities. It is our expectation that each fellow will complete at least one research project taking it from conception through to completion. In addition, each fellow is expected to write at least one review article/book chapter. Further participation in research and writing activities is always welcomed and encouraged.

Under supervision, fellows will also review manuscripts submitted to a variety of anesthesia journals, abstracts submitted to anesthesia scientific meetings, and grant applications. These activities together with the research activities outlined above will provide fellows with an excellent insider’s view of the entire research process.

Fellows will also have the opportunity to learn how to use Transcranial Doppler, Cerebral Oximetry, Evoked Potential and EEG monitoring during surgery.

The Neuroanesthesia Program will provide training in perioperative management of patients undergoing neurological surgery. The clinical experience is very extensive in all areas of neurosurgery including, craniotomies for tumours and hemifascial spasm carotid endarterectomy, spinal surgery, trauma as well as working in interventional radiology.

The primary responsibility of the Fellow is to provide expert neuroanesthetic care to patients presenting for neuro surgery.

There is ample opportunity to become involved in clinical research. It is our expectation that each fellow will complete at least one research project taking it from conception through to completion. In addition, each fellow is expected to write at least one review article/book chapter. Further participation in research and writing activities is always welcomed and encouraged.

FELLOWSHIP STRUCTURE

- **Duration:** The fellowship training program will be undertaken over twelve consecutive months and includes four weeks of vacation time.
- **Number of fellowship positions:** 2
- **Location:** Fellowship training will take place at University Hospital.
- **Service commitment:** 100 days per year (subject to change according to department fellowship policies). This service commitment may be in subspecialties unrelated to neuroanesthesia. The remainder of the weekdays is subspecialty time. Academic time may be granted depending on the academic productivity of the fellow.
- **Call commitment:** Fellows will be expected to be available out of hours (evenings, nights and weekends) for a week at a time. Coverage will vary dependent on number of fellows. A pager will be provided by the department.

ELIGIBILITY REQUIREMENTS FOR CANADIAN and FOREIGN MEDICAL GRADUATES

- ✓ Candidates must possess a medical degree from a recognized University
- ✓ International Medical Graduates must be approved by the PGE Office at Western University
- ✓ English Language Requirement: TOEFL-iBT required to achieve an overall score of no less than 100 with a minimum score of 24 in speaking or listening (**IMG only**).
- ✓ **Link to Application Requirements:**
http://www.schulich.uwo.ca/anesthesia/education/fellowship/application_requirements.html

GOALS and OBJECTIVES

MEDICAL EXPERT

The Neuroanesthesiologist must have developed an appreciation of all aspects of perioperative medical management. This includes an understanding of basic cerebral physiology, influence of anesthetic agents and techniques on the normal control mechanism, and the influence of disease pathology on normal cerebral physiology and pharmacology.

The Fellow will be able to:

- Perform anesthetic management of acute head injury
- Apply knowledge of the anesthetic management of cerebral vascular surgical procedures including aneurysms, arteriovenous malformations, carotid endarterectomy, extracranial-intracranial bypass procedure
- Understanding of anesthetic management of supratentorial tumors, and posterior fossa lesions
- Perform anesthetic management of the seated patient
- Management of interventional neuroradiology
- Proficient use of the EEG
- Practise medicine within their defined scope of practice and expertise
- Perform a patient-centred clinical assessment and establish a management plan
- Plan and perform procedures and therapies for the purpose of assessment and/or management
- Establish plans for ongoing care and, when appropriate, timely consultation
- Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

COMMUNICATOR

- Establish professional therapeutic relationships with patients and their families
- Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families
- Share health care information and plans with patients and their families
- Engage patients and their families in developing plans that reflect the patient's health care needs and goals

- Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy

COLLABORATOR

- Work effectively with physicians and other colleagues in the health care profession
- Work with physicians and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts
- Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care

LEADER

- Contribute to the improvement of health care delivery in teams, organizations, and systems
- Engage in the stewardship of health care resources
- Demonstrate leadership in professional practice
- Manage career planning, finances, and health human resources in a practice

HEALTH ADVOCATE

- Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment
- Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner

SCHOLAR

- Engage in the continuous enhancement of their professional activities through ongoing learning
- Teach students, residents, the public and other health care professionals
- Integrate best available evidence into practice
- Contribute to the creation and dissemination of knowledge and practices applicable to health

PROFESSIONAL

- Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards
- Demonstrate a commitment to society by recognizing and responding to societal expectations in health care
- Demonstrate a commitment to the profession by adhering to standards and participating in physician-based regulation
- Demonstrate a commitment to physician health and well-being to foster optimal patient care

ASSESSMENT

The Fellowship Director for Neuroanesthesia will provide face-to-face feedback to fellows at 3 month intervals.

The feedback will be based on:

- Daily and weekly assessments of performance by the supervising consultant while on neuroanesthesia assignments
- 360 degree appraisal from staff anesthesiologists, residents, surgeons, and nurses twice yearly