

## **Clinical Fellowship in Regional Anesthesia/Ambulatory Anesthesia**

St. Joseph's Health Care London (SJHC) and University Hospital (UH), currently serve as the two primary sites for regional anesthesia activity at UWO. Plastic and orthopedic surgeons at SJHC perform approximately 3000 surgical cases. Surgical procedures at UH involving the general, plastic, orthopedic and cardiac surgery programs provide the clinical caseload for fellows and residents at UWO.

More than 80% of regional anesthesia/analgesic techniques are performed in a fully staffed and equipped block area, providing a better teaching and learning environment.

During the fellowship, the candidate will gain experience in the management of perioperative regional anesthesia/analgesia. Continuity of care will be achieved by participation in the performance of neuraxial and/or peripheral nerve blockade immediately pre-operatively, and then follow-up while the patient is on the acute pain service. A point of emphasis is the multimodal approach to acute post-operative pain management, of which regional anesthesia/analgesia is a cornerstone.

Continuous regional anesthesia/analgesia is a major component of the regional anesthesia practice at UWO. Ultrasound in conjunction with both stimulating and non-stimulating catheters, are utilized for both epidural and peripheral nerve blockade. The regional anesthesia group is involved in the evolution of discharging patients home with continuous peripheral nerve blocks post-operatively.

Our regional anesthesia staff have a particular interest in the use of ultrasound for the placement of peripheral nerve blockade. Ultrasound is readily available for both single shot and catheter techniques. Currently, there are ongoing research projects related to peripheral nerve blockade with the use of ultrasound.

### **Non-technical**

Assigned academic time can be used to become involved in clinical or lab research. Areas of research include ultrasound, stimulating epidural catheters, and continuous regional analgesia. Research project interests of the current anesthesiologists or fellows are encouraged. In addition, fellows have the opportunity to enroll in research design and statistical analysis courses offered through the UWO.

Fellows will be asked to become actively involved in the teaching of regional anesthesia to residents in the UWO training program. This will occur after the fellow has had the opportunity to become comfortable performing various techniques under the guidance of the consultant staff.

Annually, the division presents a workshop, which includes seminars on anatomy, various techniques, and ultrasound basics. Interspaced with these interactive sessions are demonstrations of a number of techniques using ultrasound, or catheters (stimulating/non-stimulating) on patients prior to a surgical procedure. There is also ultrasound practice on

models and human volunteers. The animal lab provides the opportunity to perform nerve localization in pigs using ultrasound and equipment commonly used in practice.

## **Strengths of the Program**

Strengths of the regional anesthesia division include:

- The number and variety of clinical cases available to trainees
- The availability of current ultrasound imaging technology to perform peripheral nerve block and understand living anatomy
- The use of continuous peripheral nerve blockade as an integral component of acute pain management
- The development of an ambulatory regional analgesia program (home regional)
- Expertise in the use of paravertebral blockade
- The possibility of research opportunities in chronic pain
- Collaboration with medical imaging for a variety of issues
- Monthly/bimonthly journal club activities to review and discuss current regional anesthesia topics
- Monthly demonstrations of various techniques (block of the month) intended to promote discussion around troubleshooting, variation, or advances in technique and clinical experience

## **Weaknesses of the Program**

Weaknesses of the regional anesthesia division include:

- Currently, we are in the early stages of expanding regional anesthesia into the pediatric setting
- Currently, we do not have weekly teaching, but should introduce this with teaching by various staff
- Currently, we do not have regular fellow evaluations
- Currently, we do not have staff evaluations by fellows