

## Pediatric Anesthesiology Objectives

### **Description of Fellowship**

#### Background:

The Division of Pediatric Anesthesia is part of the Department of Anesthesia of McMaster University. It is primarily located at the McMaster University Medical Center which houses the McMaster Children's Hospital.

The hospital has 170 acute beds, home to 40 subspecialty clinics, and has one of the largest Neonatal Intensive Units in Canada. Exposure to clinical cases encompasses a full range of procedures, except transplant surgeries and cardiac surgery requiring bypass.

There are approximately 5300 surgeries performed annually. In addition, there is a large and increasingly growing area of Non-Operating Room Anesthesia, involving MRI, CT scan, Interventional Radiology, Endoscopy clinics, Minor procedural sedation, and Acute and Chronic Pain services for children.

The intent of the fellowship is to prepare individuals to practice in tertiary referral hospitals or practice competent pediatric anesthesia in other settings.

#### **Training Objectives:**

1. Develop a comprehensive knowledge and understanding of:
  - a. Anatomy, physiology and pharmacology pertinent to pediatric anesthesia
  - b. Anesthesia equipment relevant to pediatric anesthesia
  - c. Pre-anesthetic assessment and preparation of patient, using a family-centered model.
  - d. Understand implications of co-existing diseases involving all organ systems that may have importance in the provision of a safe and appropriate anesthetic.
  - e. Appreciation of the various surgical techniques and procedures employed by the various pediatric subspecialties.
  - f. Develop competence in the provision of commonly accepted regional anesthesia techniques.
  - g. Postoperative care, including pain management and critical care management considerations.
  
2. Research in an area of pediatric anesthesia is strongly encouraged. There is a robust infrastructure within the department for help and support to complete a research project.

3. Additional training in Critical care or rotations in other institutions that offer pediatric cardiac and transplant anesthesia can be arranged.
4. Ultrasound guidance for peripheral IV's, arterial lines and nerve blocks.
5. Airway management in neonatal patients.
6. Fluids and temperature management in pediatric patients.

### **Fellows Responsibilities:**

Fellows will work under the supervision of a staff anesthesiologist daily. It is the expectation that a working week will consist of 2-3 days of pediatric anesthesia, 1-2 days of independent practice and 1 day allocated to research or scholarly activity.

A fellow is expected to do call and there are many relevant cases, particularly neonatal surgeries that are done after regular hours, and it is the expectation that the fellow will avail themselves of these opportunities.

#### **On call duty**

- 2 weekends of pediatric anesthesia call
- Fellows are assigned with anesthesia staff working in the OR
- 4 clinical days in the pediatric anesthesia operating room
- One non-clinical day per week (NCDs) or academic days [1 day]: This is granted according to the fellow's academic engagement (research, teaching, journal clubs, etc.)

Attendance at all academic rounds is encouraged as well as presentations at these department forums.

Teaching of junior learners, both residents and medical students, and participation in simulation sessions (e.g. MEPA) may fall under the responsibility of the fellow.

### **Assessment:**

Formal evaluations will be done on at least a quarterly basis, with a face-to-face meeting with the Fellowship Director. It is expected that the Fellowship Director will receive both verbal and formal feedback from the fellowship supervisors and convey any issues to the fellow timeously.