

# **ANESTHESIA/FAMILY MEDICINE ONE YEAR PROGRAM**

## **UNIVERSITY OF WESTERN ONTARIO**

### **OVERVIEW:**

The terminal objective for the program is to train practitioners to the level where they will be effective and safe practitioners of anesthesia in the small hospital setting. The program has been successfully achieving this end for more than 25 years.

While striving to optimize the breadth and depth of clinical experience for the trainee, the program is also designed to be a flexible educational experience. Thus, the program is custom-tailored to each individual trainee, based on the trainee's past experience and educational objectives.

### **BASE ROTATIONS:**

The majority of the anesthesia training will be provided at St. Joseph's Health Care and the Victoria and University sites of London Health Sciences Centre. A two block community experience at our sister site in St. Thomas (St. Thomas Elgin General Hospital) which is a 20 min. drive from the centre of London.

St. Joseph's Health Care provides the resident with exposure to operative cases similar to those likely to be found in a community hospital setting. There is also a major focus on obstetric anesthesia and analgesia, ambulatory anesthesia, and some regional anesthesia. This will provide the trainee with exposure to both complicated and routine obstetrics and regional anesthesia. It will allow development of proficiency in the various techniques of analgesia for labour and delivery, including epidural analgesia, patient-controlled analgesia, and inhalational analgesia.

The Victoria Hospital site of London Health Sciences Centre rotation emphasizes heavily the trauma and emergency aspects of the anesthetic practice. The family medicine resident will be expected to provide airway management under anesthesia consultant supervision in both emergent and non-emergent situations. The operating room experience at Victoria Hospital is also designed to expose the resident to a variety of cases that the family medicine anesthesiologist would expect to encounter. Pediatric anesthesia experience is also coordinated at the Victoria Hospital. University Hospital allows for the exposure to more complicated medical patients, an introduction to Neuro - resuscitation and anesthesia, and also has general and sports medicine cases.

The St. Thomas Elgin General site allows for community based exposure and gives an opportunity to work with a Family Medicine Anesthesia practitioner.

Elective time in other disciplines appropriate to the trainee's educational objectives can be arranged on an elective basis.

### **ELECTIVES:**

The main elective to be considered in the family medicine/anesthesia training program is one to two blocks of intensive care medicine, most commonly undertaken in ICU. This rotation would allow the family medicine resident exposure to the types of cases that a community hospital ICU may be called on to handle.

The opportunity to participate in research appropriate to the family practice anesthetist is continuously available.

The family medicine resident is expected share an on-call schedule (in compliance with PAIRO guidelines), along with other anesthesia residents.

### **ACADEMIC TEACHING SESSIONS:**

An introductory course in anesthesia is operated for the new anesthesia trainees each year. These include the family practice/anesthesia residents and the new Royal College anesthesia trainees. The family practice/anesthesia trainees are also expected to be involved with the Wednesday afternoon academic half day sessions which are run for the Royal College anesthesia trainees. Special effort is made to highlight areas of focus for the family practice trainee in these sessions. Individual hospital-based seminar series are run at the various hospital sites. The series at St. Joseph's Health Care concentrates on obstetrics and regional anesthesia while Victoria Hospital concentrates on trauma and pediatrics. Each Wednesday morning the individual hospital sites have their weekly rounds that cover everything from morbidity and mortality reviews to individual case discussions. The Department of Anesthesia enjoys the presence of visiting professors on a regular basis. The visiting professors present a topic of their focus at a city-wide round and often conduct a resident lecture as well. Visiting professors attend the department approximately every six weeks. There is an active evidence-based Journal Club.

The foregoing academic activities provide a full range of educational opportunities for the family practice/anesthesia trainee. As well, the anesthesia trainee is assigned to an individual staff anesthetist on a daily basis for the practical clinical teaching aspect. This allows time on a daily basis for supervised clinical activity, as well as on-going discussion of practical and academic aspects of anesthesia.

## **UNIVERSITY OF WESTERN ONTARIO ANESTHESIA RESIDENCY PROGRAM EDUCATIONAL OBJECTIVES FOR FAMILY PRACTITIONERS**

### **I ANESTHESIA SKILLS: GENERAL REQUIREMENTS**

Administering anesthesia requires knowledge and skills for maintaining and controlling the cardio respiratory function of patients who are relatively well or for patients with single or multi-system dysfunction or failure. The person who administers the anesthetic must know the effects of

various pharmacologic agents on these patients. These skills are necessary during surgical procedures but are also required in other clinical situations.

(a) **Pre-Anesthetic Assessment:**

It is especially important for the FP anesthetist to carefully screen patients pre-operatively to determine their physical status (ASA category) and suitability for surgery. This allows the practitioner to identify cases that may be beyond the capabilities of either the anesthetist or the facility. The FP anesthetist must be able to recognize which patients require immediate stabilization and transport to a tertiary care facility. In addition, the circumstances in which a delay in surgery is advised must also be understood.

The FP anesthetist must understand the pathophysiology of the patient's disease process and its relation to anesthesia and surgery and be able to make use of appropriate examination and laboratory tests, and to recommend measures to achieve preoperative optimization of the patient's medical condition.

(b) **Airway Control:**

The FP anesthetist should be skilled at the assessment of the airway, for patency, protection and ease of intubation. Management skills include bag mask ventilation, laryngeal mask insertion and intubation. Use of advanced techniques for intubation is also expected.

(c) **Ventilation:**

The management of patients requiring a ventilator is necessary for short-term care in the rural setting and for care during transport. In the intensive care setting, the FP anesthetist must be skilled in the management of mechanical ventilation, non-invasive and invasive monitoring and appropriate pharmacotherapy for chronic, acute or emergency respiratory problems.

(d) **Cardiovascular Status:**

The cardiac status of the anesthetized patient must be assessed, continually monitored, and managed with appropriate drug therapy. The FP anesthetist must be skilled in acute resuscitation during cardiac arrest.

The above skills are particularly important in non-urban areas, to maximize the care of patients with limited staff.

## II **ANESTHESIA SKILLS: SPECIFIC APPLICATIONS**

(a) **Surgical:**

*To provide anesthesia during surgery the FP anesthetist must be able to:*

- i select a safe and effective anesthetic technique
- ii select appropriate invasive or noninvasive monitoring methods and use

additional equipment as required

- iii safely conduct intraoperative management
- iv effectively manage complications of anesthesia within prescribed limits
- v select and supervise appropriate postoperative management of the patient
- vi know when it is appropriate to transfer the care of the patient to another practitioner
- vii use anesthesia equipment and demonstrate an understanding of its principles and basic maintenance
- viii respond to the special needs of specific groups of patients such as newborns, children, pregnant women, geriatric patients, ambulatory patients
- ix plan and enact a plan for postoperative pain control

*The FP anesthetist must be able to respond to:*

- i emergency anesthesia (situations in which the risk of further illness or death would increase during transportation)
- ii urgent anesthesia (when the safety of the patient might be compromised during transportation)
- iii elective anesthesia (to maintain surgical/anesthetic support skills for the convenience of the patient and the community)

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### **Educational Objectives for Family Practitioners Anesthesia/Family Medicine One Year Program**

**(b) Trauma Management:**

In the area of trauma management the FP anesthetist must be skilled in airway management, cardio respiratory stabilization, insertion of vascular lines, assessing the status of the patient, evaluating the urgency of surgery, and ventilation management, as well as in the identification and management of life-threatening emergency situations.

**(c) Obstetrical Anesthesia:**

The FP anesthetist must demonstrate skill in epidural anesthesia for the management of pain during labour and delivery. In addition provide regional and if required general anesthesia for Cesarean sections, manage the complications of pregnancy requiring an anesthetic (spontaneous abortion, antepartum hemorrhage, premature labour, fetal distress, prolonged second stage) and be able to provide neonatal resuscitation.

**(d) Medical Management:**

The FP anesthetist must be able to demonstrate appropriate management of acute or chronic cardiac arrhythmias or myocardial infarction; management of acute or chronic respiratory diseases; short-term ventilation and the preoperative screening of patients requiring referral to another centre.

(e) **Social and Ethical Considerations in the Rural Setting:**

The availability of anesthetic and surgical services improves the convenience of health care in rural communities. In addition, surgery in community hospitals maintains a base of expertise and skills in rural areas and reduces patient load in urban centres.

The physician's personal responsibility for continuing medical education and skill development must be instilled during training. All physicians should be aware of the problems of impairment by fatigue or by chemical dependence and of the need for quality assurance and peer review.

### III SUMMARY:

In summary, the goals and educational objectives are to provide pre-anesthetic assessment of the patient and to determine the levels of anesthetic risk to provide competent, safe anesthesia for patients requiring "non-radical" surgery, to provide management of emergency situations requiring anesthesia skills (cardiac arrest, trauma, obstetric problems, stabilization for transport), to coordinate transfer as necessary, and to fully recognize the limitations of self and facility.

To fulfill these educational objectives the anesthetist directly responsible for the FP anesthetist's training should ideally have a special interest in or knowledge of rural anesthesia to facilitate the development of the skills most useful in a non-urban practice.

Sessions should be designed specifically for the FP anesthetist to systematically review the physiology, pharmacology, equipment, complications and other areas that will be needed in the community.

Finally, the onus is placed on the FP anesthetist to update professional skills when required and to know one's own limitations.