

**SCHULICH SCHOOL OF MEDICINE & DENTISTRY
THE UNIVERSITY OF WESTERN ONTARIO**

ANESTHESIA FOR FAMILY PHYSICIANS (GP ANESTHESIA PROGRAM)

The GP anesthesia program is a one year program designed to provide family physicians with the knowledge and skills to be able to provide anesthesia care for low risk patients undergoing relatively uncomplicated procedures particularly in smaller rural communities. It is of interest to recent graduates from family medicine training programs as well as family physicians who have been in independent practice who wish to acquire the skills necessary for independent anesthetic practice.

Participants in the program rotate through the three teaching sites, community and/or rural hospitals so that they will acquire the knowledge, skills and experience required to provide anesthesia to a wide variety of patients in a number of settings.

I. THE FAMILY PHYSICIAN IS A SKILLED CLINICIAN

Family physicians demonstrate competence in the patient-centered clinical method: they integrate a sensitive, skilled and appropriate search for disease. They demonstrate an understanding of patients' experience of illness (particularly their ideas, feelings and expectations) and of the impact of illness on patients' lives. Family physicians have expert knowledge and skills related to the wide range of common health problems and conditions of patients in the community, and of less common but life-threatening and treatable emergencies in patients in all age groups. Their approach to health care is based on the best scientific evidence available. Family physicians use their understanding of human development and family and other social systems to develop a comprehensive approach to the management of disease and illness in patients and their families.

Family physicians are also adept at working with patients to reach common ground on the definition of the problems, goals of treatment, and roles of physician and patient in management. They are skilled at providing information to patients in a manner that respects their autonomy and empowers them to "take charge" of their own health care and make decisions in their best interests.

In this program, residents will acquire the knowledge and skill set as noted below and in addition will become familiar with the way these skills can be incorporated into a primary care setting.

A. KNOWLEDGE OF THE DISCIPLINE OF ANESTHESIA:

1. Knows the age-related differences in anatomy, physiology, and pharmacology among children beyond infancy, adults, pregnant women, and the elderly.

Enabling Objectives:

- Knowledge of the practice guidelines of the Canadian Anesthesiologists' Society.
- Knowledge of anatomy and physiology of the airway and the following systems: cardiovascular, respiratory, renal, hepatic, endocrine, neurologic and hematologic.
- Knowledge of pharmacology pertaining to inhalation drugs, induction agents, opioids, and other common analgesics, muscle relaxants and reversal agents, local anesthetics and cardiac resuscitation drugs.
- Knowledge of commonly used therapeutic drugs and other health related products and their interactions with anesthetic agents.

2. Identifies pathophysiologic variables that have an impact on the use of anesthetic drugs and techniques.

Enabling Objectives:

- Knowledge of effects on pharmacology of diminished cardiovascular, respiratory, renal, hematologic, hepatic, and neurologic function.

3. Can apply knowledge in creating anesthetic plans with respect to anesthetic drugs and techniques.

Enabling Objectives:

- Knowledge of indications and contraindications, risks and benefits of general anesthetic techniques.
- Knowledge of indications and contraindications, risks and benefits of regional anesthetic techniques to include central neuraxial blocks.
- Knowledge of basic bioethical issues encountered in anesthesia practice including informed consent.
- Demonstrates skill in establishing and maintaining cardiovascular and respiratory support.

B. PERI-OPERATIVE ANESTHESIA CARE:

Pre-Operative Anesthesia Care:

1. Performs preoperative risk assessment to identify medical conditions, institutional limitations or personal limitations requiring appropriate referral of the patient.

Enabling Objectives:

- Demonstrates clinical skills in pre-anesthetic assessment with respect to the airway and bodily systems.
- Advises patients re optimization of medical conditions.
- Advises patients of the risks and benefits of the anesthetic plan including plans for referring the patient.

2. Intra-Operative Care:

Enabling Objectives:

- Creates appropriate anesthetic plans with appropriate monitoring.
- Anticipates problems and is capable of managing them.

3. Post-Operative Care:

Demonstrates skills for post-operative care.

Enabling Objectives:

- Demonstrates appropriate choices for post-operative management including management of acute pain to include use of local anesthetic techniques and intravenous patient controlled analgesia.

C. RESUSCITATION AND LIFE SUPPORT:

1. Demonstrates skills for resuscitation and life support for critically ill children and adults.

Enabling Objectives:

- Demonstrates skill in initial resuscitation (exemplified by resuscitation courses such as PALS, NALS, ACLS and ATLS).

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D. TECHNICAL COMPETENCE:

1. Knows the design and function of anesthetic equipment.

Enabling Objectives:

- Provides expertise to the community related to the acquisition and maintenance of anesthetic equipment.
- Uses components of the gas machine appropriately (anesthesia delivery circuits, vaporizers, ventilators, scavenging systems).
- Uses monitors, airway equipment and vascular access devices appropriately.
- Can detect when equipment malfunctions or provides incorrect data.
- Demonstrates appropriate use of anesthesia equipment including performance of pre-anesthetic check of the gas machine according to CAS standards.

2. Demonstrates a level of competence acceptable for level of training with respect to the procedures commonly employed in anesthesia practice.

Enabling Objectives:

- Demonstrates clinical skills necessary for competent airway management with a suitable variety of alternate management skills including invasive airway skills.
- Demonstrates clinical skills in initiating vascular access and patient monitoring – non-invasive and invasive, including arterial and central venous line insertion.
- Demonstrates clinical skills in performing regional anesthesia/analgesia techniques to include neuraxial and peripheral nerve blocks.
- Demonstrates clinical skills necessary for management of labour analgesia and anesthesia.

- Demonstrates clinical skills necessary for the provision of anesthesia for children, excluding neonates and infants.
- Demonstrates knowledge and basic clinical skills for outpatient management of chronic and palliative care pain.

II. FAMILY MEDICINE IN COMMUNITY BASED

Family medicine is based in the community and is significantly influenced by community factors. As a member of the community, the family physician is able to respond to people's changing needs, to adapt quickly to changing circumstances and to mobilize appropriate resources to address people's needs. The family physician may care for patients in the office; the hospital, including the emergency department; other health care facilities; or the home. Family physicians see themselves as part of a community network of health care providers and are skilled at collaborating as team members or team leaders. They use referral to specialists and community resources judiciously.

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The nature of anesthetic care necessitates the GP anesthesia training program is primarily hospital based. Trainees will, however, have exposure to community settings during a one month rotation in a rural setting during which a combination of operating room, emergency room, and office based practice will be experienced. They will acquire the skills necessary to advocate for the maintenance and improvement of anesthetic services for the communities in which they practice.

Enabling Objectives:

- The resident will demonstrate an ability to select and interpret appropriate pre-operative investigations.
- The resident will demonstrate effective communications with other members of the health care team.
- The resident will exhibit professional behaviour including responsibility, respect and self-awareness.
- The resident will demonstrate knowledge of capabilities/limitations of rural health care physicians and facilities]

III. THE FAMILY PHYSICIAN IS A RESOURCE TO A DEFINED PRACTICE POPULATION

The family physician views his or her practice as a "population at risk" and organizes the practice to ensure that patients' health is maintained whether or not they are visiting the office.

Such organization requires the ability to evaluate new information and its relevance to practice, knowledge and skills to assess the effectiveness of care provided by the practice, the appropriate use of medical records and/or other information systems, and the ability to plan and implement policies that will enhance patients' health. Family physicians have effective strategies for self-directed, life-long learning. Family physicians have the responsibility to advocate public policy that promotes their patients' health.

Family physicians accept their responsibility in the health care system for wise stewardship of scarce resources. They consider the needs of both the individual and the community.

Residents will be expected to have an understanding of seminal research available in the anesthesia literature relevant to their scope of practice. There will be an expectation of the resident to maintain learning throughout the fellowship and to demonstrate an approach to maintenance of their knowledge throughout their practice. It is expected that residents appreciate the importance of advocating for patients throughout their peri-operative experiences.

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Enabling Objectives:

- The resident will demonstrate appropriate use of information technology and critical appraisal skills in order to practice evidence based medicine.
- The resident will demonstrate good record keeping skills.
- The resident will demonstrate effective time management skills.
- The resident will demonstrate effective performance in stressful and emergency situations
- The resident will demonstrate awareness of stress management, fatigue, substance abuse and quality assurance.

IV. THE DOCTOR-PATIENT RELATIONSHIP IS CENTRAL TO THE ROLE OF THE FAMILY PHYSICIAN

Family physicians understand and appreciate the human condition, especially the nature of suffering and patients' response to sickness. Family physicians are aware of their strengths and limitations, and recognize when their own personal issues interfere with effective care. Family physicians respect the primacy of the person. The relationship has the qualities of a covenant – a promise, by physicians, to be faithful to their commitment of well-being of patients, whether or not patients are able to follow through on their commitments. Family physicians are cognizant

of the power imbalance between physicians and patients, and of the potential for the abuse of this power.

Family physicians provide continuing care to their patients. They use repeated contacts with patients to build on their relationship and to promote the healing power of their interactions. Over time, the relationship takes on special importance to patients, their families and the physician. As a result, the family physician becomes an advocate for the patient.

Residents will be able to utilize the skills acquired as family physicians in communicating effectively with patients in all phases of the perioperative period. These include the pre-operative workup, intra-operative management and post-operative care. Residents will become effective patient advocates in assessing, advising and optimizing patients in anticipation of anesthesia for surgical and non-surgical procedures. Residents will be expected to continually respect boundaries that may exist. Residents will be expected to respect the different societal, religious and ethnic differences that may appear throughout their patient interactions.

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Enabling Objectives:

- The resident will demonstrate effective communication with patients.
- The resident will demonstrate compassion and empathy.
- The resident will demonstrate understanding of medicolegal issues relevant to professional activities.
- The resident will identify ethical problems and have an approach to their solution.
- The resident will deal appropriately with issues of confidentiality and consent.

Supervisors:

The Program Director will be responsible for distribution of residents to appropriate sites to ensure that relevant knowledge, skills and experiences are acquired. There will be a supervisor at each site to ensure that these goals are achieved.

Clinical Duties and On-Call Expectations:

Residents will rotate through at least four sites. Call will vary by site and will not exceed 1:4. Call duties will be shared by residents in the Royal College Anesthesia program when both types of trainees are present.

Funding:

Funding will be through the Enhanced Skills Program, UWO Family Medicine Department or the Re-Entry Program of the MOH, Ontario.

Evaluation:

Mid and end of rotation evaluations will be completed by the site supervisors using the One45 system at UWO.