

## **Obstetrical Anesthesia Rotation Objectives**

Residents in the University of Western Ontario Anesthesia Training Program will be involved in the care of Obstetrical patients throughout their residency. Initial experience will most often be obtained at St. Joseph's Hospital, but exposure to this patient population will also be available LHSC-Victoria Hospital. Residents will participate in the care of Obstetrical patients at both sites while on call. In addition, each resident will spend at least one month in a dedicated Obstetrical Anesthesia Rotation, in most cases during the latter portion of the residency. Residents are expected to be familiar with the objectives outlined in this document and are invited to discuss any questions or concerns with their supervisors.

### **Medical Expert:**

#### **PGY 1 – 3**

#### Diagnostic and Therapeutic Skills:

##### 1. Physiology / Pathophysiology of Pregnancy

- the resident will be able to describe the physiologic changes of normal pregnancy and their relevance to anesthetic management of the pregnant patient.
- the resident will know relevant fetal physiology, potential fetal effects of anesthesia for labour and delivery, and basic principals of FHR monitoring.
- the resident will be able to describe normal uteroplacental blood flow and placental drug transfer mechanisms.
- the resident will understand pain pathways involved in labour and delivery.
  
- the resident will be able to describe the pathophysiologic changes accompanying common medical complications of pregnancy including, but not limited to:
  - diabetes
  - infection – maternal, fetal
  - hypertension
  - asthma
  - coagulopathy
  
- the resident will be able to describe specific obstetric complications and their anesthetic implications:
  - antenatal and postpartum hemorrhage
  - malpresentation
  - placental abruption
  - placenta previa, placenta accreta
  - ectopic pregnancy
  - preterm labour
  - uterine atony
  - uterine laceration / perforation
  - inverted uterus

- multiple gestation
- amniotic fluid embolism

## 2. Anesthesia and Analgesia For The Pregnant Patient

- the resident will be familiar with the indications, contraindications, and management of anesthetic techniques for regional and general anesthesia in the parturient.
  - anesthesia during pregnancy for non-obstetrical surgery
  - options for analgesia during labour and delivery (pharmacologic and non-pharmacologic)
  - anesthesia for “double set up” and caesarean section (elective / urgent/ emergent)
  - anesthesia for management of postpartum hemorrhage
- the resident will become competent in the provision of epidural analgesia for labour and delivery, and in the provision of either regional or general anesthesia for c-section.
- the resident will be able to manage complications of labour analgesia (hypotension, toxic reactions to local anesthetics, dural puncture / PDPH, inadequate block)

## PGY 4 – 5

### 1. Physiology / Pathophysiology of Pregnancy

- the resident is expected to further enhance his/her knowledge of the topics listed in the PGY 1 – 3 objectives.
- the resident will be able to describe the anesthetic considerations and management of patients with uncommon medical and obstetrical conditions including:
  - valvular heart disease
  - congenital heart disease – corrected / uncorrected
  - cardiomyopathy
  - neurologic disease and pregnancy
  - endocrine disease and pregnancy
  - musculoskeletal disease and pregnancy
  - substance abuse
  - hematologic disease and pregnancy
  - hepatorenal disease and pregnancy
  - morbid obesity

### 2. Anesthesia and Analgesia For The Pregnant Patient

- further experience / development of expertise in techniques of regional and general anesthesia for the pregnant patient
  - epidural analgesia and anesthesia
  - combined spinal - epidural

- spinal anesthesia
- general anesthesia, including management of the difficult airway
- epidural blood patch

By completion of residency training the resident is expected to:

- demonstrate diagnostic and therapeutic skills for effective and ethical patient care
- access and apply relevant information to clinical practice
- demonstrate effective consultation services with respect to patient care, education, and legal opinions.

**Communicator:**

- the resident will demonstrate the ability to communicate with patients and their families, and other members of the health care team regarding anesthetic care and management plans.
- the resident will encourage the participation of patients and their families while obtaining informed consent for procedures.

**Collaborator:**

- the resident will demonstrate the ability to:
  - function as a member of a team in caring for the parturient during the antenatal, intrapartum and postpartum periods
  - understand the indications for appropriate consultation with other physicians or allied health care professionals.

**Manager:**

- the resident will demonstrate the ability to:
  - utilize time and resources effectively in balancing patient care and associated activities
  - understand the guidelines for establishment and administration of an obstetrical anesthesia service in a community hospital
  - utilize information technology to optimize patient care and continuing education.

**Health Advocate:**

- the resident will:
  - follow the practice guidelines of the Canadian Society of Anesthesiologists
  - recognize issues where it is appropriate to act as a patient

advocate, and perform this role effectively.

**Scholar:**

- resident will:
  - be able to critically assess the obstetrical anesthesia literature and other sources of medical information.
  - attend rounds and teaching seminars as scheduled.
  - contribute to the education of other individuals in the obstetrics unit (medical students / patients / other health care providers).

**Professional:**

- the resident will:
  - practise in an ethically responsible and professionally appropriate manner displaying integrity, honesty, and compassion