

**UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL
ANESTHESIOLOGY RESIDENCY PROGRAM**

**OBSTETRIC ANESTHESIOLOGY CA-3 REQUIRED ROTATION
UMASSMEMORIAL – MEMORIAL CAMPUS
OR
BRIGHAM AND WOMEN’S HOSPITAL**

The CA-3 resident may choose to gain additional experience in obstetric anesthesia at either UMassMemorial-Memorial Campus, Brigham and Women’s Hospital, Boston, or another institution of one’s choosing, with Program Director approval. The goal for the resident is to solidify the basic skills and knowledge acquired during the CA-2 rotation, to gain exposure to more advanced patient care, and to develop more independence in patient management. Length of rotation is one month, but may be extended after approval from the Program Director. The goals defined below are those on a continuum, able to be achieved at varying levels dependent upon length of time on rotation

GOAL

The CA-3 resident will gain sufficient experience in this rotation in order to:

- Enhance skill as a consultant anesthesiologist, able to critically assess patient needs (particularly of the high risk parturient) preoperatively and communicate with appropriate individuals on the patient care team at any time in that patient’s care
- Develop confidence in the ability to formulate anesthetic plans for the patient in labor, institute and manage the plan, and care for any complications
- Become comfortable with the pathophysiology and management of common complications of pregnancy and labor-Pregnancy Induced Hypertension, Obstetrical hemorrhage, embolic disease in Pregnancy
- Develop proficiency in the skills needed to care for laboring patients appropriately, including identification of proper analgesia options, placement of lumbar epidural catheters for analgesia with minimal guidance, anesthetic induction of neuraxial blockade for elective C-section with minimal assistance, general anesthetic induction for emergency C-section with minimal assistance, recognition of need for, and performance of, epidural blood patch with minimal assistance
- Develop critical knowledge in the areas of perinatal pharmacology and teratogenesis, pharmacokinetic factors influencing placental transfer of drugs, assessment of human placental function, neonatal assessment, and methodologies central to major concepts in OB anesthesia
- Practice independent judgment and action with attending guidance
- Understand the need for, and put into practice, clear communication and positive interactions with patients and families

OBJECTIVES

I. PATIENT CARE

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to:

- counsel a patient and her family about issues relevant to anesthesia and pain relief in childbirth
- anticipate changes in the peripartum course and proactively adjust accordingly
- perform neuraxial blocks on patients who present challenges (e.g., scoliosis, obesity, etc)

- provide anesthetic management of a complicated cesarean section
- resuscitate a mildly depressed neonate
- quickly formulate a care plan and manage a medically complicated obstetric patient
- Discuss the role, risks, and benefits of combined spinal/epidural analgesia/anesthesia for labor and/or cesarean section.
- Perform an appropriate preoperative evaluation and develop a management plan for the parturient with the following disorders for labor pain management and/or cesarean section.
 - Pre-eclampsia
 - Abnormal fetal presentation
 - Multiple gestation
 - Antepartum hemorrhage
 - Postpartum hemorrhage
 - Fever
 - Cardiac disease
 - Diabetes
 - Neurologic disorders
 - Potential or established coagulopathy
 - Compromised fetal status (“fetal distress”)
 - Preterm labor
- Perform an appropriate evaluation of the parturient planning vaginal birth after cesarean delivery (VBAC)
- Safely perform and manage combined spinal-epidural analgesia for the laboring parturient and patient presenting for caesarean section

II. MEDICAL KNOWLEDGE

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to

- demonstrate mastery of maternal physiology and the physiology of labor
- understand the drugs used in obstetric anesthetic
- understand the impact of obstetric physiology on anesthetic management
- understand the pathophysiology of the diseases of pregnancy, particularly diabetes, and the impact of these on anesthetic care
- Discuss the pathophysiology, clinical manifestations and anesthetic implications of the various hypertensive disorders of pregnancy
- Discuss the common causes of antepartum and postpartum hemorrhage and anesthetic implications
- Discuss the anesthetic implications of disorders of coagulation and thrombocytopenia in the parturient.
- Identify the various causes of compromised fetal acid-base status (“fetal distress”) and discuss methods of evaluating fetal status
- Discuss the anesthetic options for the management of the parturient with compromised fetal status
- Discuss the anesthetic implications of non-obstetric surgery in the pregnant patient
- Discuss the anesthetic implications of preterm labor and preterm delivery
- Understand common monitoring techniques for the laboring parturient; demonstrate ability to interpret results

III. INTERPERSONAL AND COMMUNICATION SKILLS

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to:

- manage the psychosocially difficult parturient
- be able to discuss all aspects of a planned anesthetic for a laboring parturient or patient scheduled for caesarean section, with both patient and family

IV. PROFESSIONALISM

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to:

- begin to control difficult situations with patients, family members and visitors in a respectful but authoritative manner
- participate in the team to forward optimal patient care

V. PRACTICE-BASED LEARNING & IMPROVEMENT

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to:

- critically review the obstetric anesthesia literature and continually assess current practice with respect to the latest data.
- synthesize a unique personal obstetric anesthesia practice from various influences including current research

VI. SYSTEM-BASED PRACTICE

Upon completion of the advanced obstetric anesthesia rotation, the resident should be able to:

- coordinate various hospital services to provide optimal care for the obstetric patient (e.g., blood bank, pharmacy, etc.)
- understand the political and philosophical factors that effect obstetric anesthesia (e.g., natural childbirth movement, midwives, etc.)

RECOMMENDED REFERENCES

Assorted journal articles (available from the Director of Obstetric Anesthesia)

Hughes SC, Levinson G and Rosen MA (eds), Shnider & Levinson's Anesthesia for Obstetrics. 4th ed. Lippincott Williams & Wilkins 2002

Datta S (ed), Anesthetic and Obstetric Management of High-Risk Pregnancy. 3rd ed. Springer; 2004

EVALUATION & FEEDBACK

In addition to the E*value monthly evaluations, the residents are intermittently evaluated by the obstetric anesthesia faculty. This includes sporadic individualized assessment while working with the resident and frequent 'sit-down' appraisals after difficult cases. Feedback is given as needed during the rotation by the obstetric anesthesia faculty to encourage the resident to attain the stated goals and objectives.

