

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

**CA-1 GENERAL O.R. MEMORIAL CAMPUS  
GOALS AND OBJECTIVES**

The CA-1 General O.R. rotation at the Memorial Campus of the University of Massachusetts is designed to provide the resident with exposure to and experience with minor and moderately complex surgical cases not commonly seen at the University campus. Resident case experience will focus on procedures for colorectal, genitourinary and endocrine (thyroid and parathyroid) pathology. In addition, as the Memorial Campus is the site of the Women's Health Center, the residents will also be exposed to significant experience in the management of urogynecologic procedures, gynecologic oncology procedures and breast surgery.

**GOALS**

Upon completion of this rotation, the resident will have additional knowledge and skill necessary to provide a thorough pre-operative assessment of the above patient population, develop an appropriate anesthetic plan, manage an anesthetic with supervision (and with a knowledge of common complications in this population) and understand and manage the postoperative PACU, including that of adequate analgesia.

**COMPETENCIES**

**I. MEDICAL KNOWLEDGE**

Over the course of the month, the resident should become familiar with the common pathologies seen in this particular subset of patients and should be able to describe:

a. Colorectal

- Physiologic consequences of laparoscopic surgery
- Complications of laparoscopic surgery, including pneumomediastinum, subcutaneous emphysema and barotrauma
- Physiologic consequences of open abdominal surgery
- Airway management for patients undergoing abdominal surgery
- Indications and contraindications of pharmacologic therapies in patients undergoing abdominal surgery
- Anesthetic management concerns in the patient undergoing abdominal surgery
- Implications and management of prone, lateral and lithotomy positioning
- Etiology, prevention and treatment of hypothermia
- Fluid management of patients undergoing abdominal surgery, including concept of third space fluid shifts

b. Genitourinary

- Renal pathophysiology and their anesthetic implications
- Indications for urologic surgery
- TURP syndrome
- Indications for regional anesthesia for urologic procedures
- Anesthetic management concerns in the patient undergoing nephrectomy
- Anesthetic management concerns in the patient undergoing open prostatectomy
- Positioning issues, implications and complications
- Fluid management, particularly indications for blood transfusion, in open prostatectomy

c. Endocrine

- Anesthetic issues with thyroidectomy and parathyroidectomy

d. Urogynecology & General Gynecology

- Indications, positioning, and implications of trans-vaginal procedures
- Physiologic consequences and anesthetic implications of laparoscopic surgery
- Anesthetic management of gynecologic and urogynecologic cases, including positioning, physiologic consequences of steep Trendelenburg positioning and need to closely monitor urine output
- Implications of ruptured ectopic pregnancy

e. Gynecologic oncology

- Need for adequate pre-operative evaluation, including past chemotherapy regimen
- Indications for invasive monitoring
- Indications and contraindications for epidural analgesia
- Anesthetic and fluid management for debulking procedures

f. Breast

- Indications for MAC vs. general anesthesia for breast biopsy
- Indications for thoracic epidural in breast surgery
- Anesthetic implications of breast surgery

## **II. PATIENT CARE**

At the end of this rotation, the resident should be able to:

- Perform a thorough preoperative evaluation, including assessment of concerns appropriate to the particular pathology
- Provide appropriate pre-operative instructions
- Prepare an operating room completely for a major case
- Demonstrate skill in placement of intravenous and intraarterial catheters
- Assemble necessary equipment, including fluid warmers
- Perform induction of general anesthesia with or without rapid sequence induction, in ASA I-II patients, with minimal assistance
- Safely position anesthetized patients in lateral, lithotomy or prone positions
- Demonstrate management of a general anesthetic, along with proper fluid management
- Be familiar with epidural/spinal anesthesia techniques, local anesthetic selection, level adjustment and complication management
- Manage intraoperative complications common to the above procedures, including low urine output, bleeding, hypoxemia, hypotension, increased inspiratory pressures

## **III. INTERPERSONAL SKILLS AND COMMUNICATION**

The resident will:

- Demonstrate an understanding of the need for effective communication among the health care team
- Effectively communicate with patients in order to obtain complete pre-operative evaluation, to present and discuss an anesthetic plan, to discuss post-operative analgesia methodology, and to provide an adequate amount of information in order to obtain informed consent

- Be able to identify complications of CO2 insufflation and communicate to the surgical team
- Provide accurate report to PACU re: anticipated management issues (analgesia, s/pTURP etc.)
- Identify the need for transfusion and communicate such to surgical team

#### **IV. PROFESSIONALISM**

The resident will demonstrate professional medical behavior by:

- Demonstrating respect, caring and compassion for patients
- Demonstrating respect for colleagues and team members in both words and actions
- Observing patient confidentiality
- Dressing appropriately
- Arriving at work on time and prepared
- Completing all documentation as required by the department
- Developing an understanding of their limitations and asking for assistance when in the best interest of the patient

#### **V. PRACTICE-BASED LEARNING**

Residents will become accustomed to the principles of practice-based learning through:

- Attendance at departmental didactic lectures and Grand Rounds
- Attendance at lectures of interest within the Memorial Campus
- Contribution to quality improvement conferences
- Attendance at practice-based case presentations
- Participation in mock oral exams
- Use of texts, journals and web-based educational tools
- Portfolio entries in order to 'learn from experience'

#### **VI. SYSTEMS-BASED PRACTICE**

Residents will gain an understanding of:

- Practice differences between an academic, university-based trauma center and a large, private-practice, university affiliated practice
- Differences in environment, case scheduling, and room turnover expectations between the two settings
- The importance of problem solving in order to prevent surgical delay and cancellation
- A different patient flow pattern along with its associated systems-based issues