# ASA GUIDE TO ANESTHESIOLOGY FOR MEDICAL STUDENTS

## **CHAPTER 24**

## **Critical Care Anesthesiologists**

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### The Field of Anesthesiology and the Critical Care Anesthesiologist

Anesthesiology provides many challenges in daily practice as well as a variety of exciting opportunities in subspecialty training. The claim by uninformed clinicians that the practice of anesthesia involves "95 percent boredom and 5 percent terror" could not be further from the truth!

The anesthesiologist, utilizing a diverse array of anesthetic techniques, is the perioperative physician for surgical patients undergoing a wide variety of surgical procedures. Today's practicing anesthesiologist is involved with the preoperative evaluation and preparation, intraoperative management, and postoperative care of surgical patients. Additionally, anesthesiologists undergoing subspecialty training in critical care medicine are leaders in postoperative care in the Surgical Intensive Care Unit.



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There are a variety of subspecialties within the field of anesthesiology. An individual may pursue further training following successful completion of a residency in anesthesiology. The available subspecialties include pain management and regional anesthesia, obstetric anesthesia, pediatric anesthesia, transplant anesthesia, neuro-anesthesia, cardiothoracic anesthesia and critical care medicine, just to name a few. Anesthesiologists also excel in research, whether it's clinical or lab-based. A research fellowship may also be pursued following completion of residency in anesthesiology.

Once a physician completes residency in anesthesiology, there are a myriad of practice opportunities available. Anesthesiologists can pursue careers in private practice, industry or academia. The goals of academic anesthesia practice remain excellence in teaching, clinical care and research. Further information about a career as an anesthesiologist can be found at the American Society of Anesthesiologists website (www.asahq.org).

# Role of the Critical Care Anesthesiologist — Clinician/Perioperative Physician

Intensivists, or critical care physicians, comprise a diverse group of clinicians. Pulmonary specialists, trauma surgeons, pediatricians, as well as anesthesiologists, all may receive specialized training in the art and science of critical care medicine. Currently, certification in critical care medicine may be achieved through several different credentialing entities (e.g., American College of Surgeons for Trauma Surgeons or the American Board of Anesthesiology for Anesthesiologist-Intensivists). Physicians who have successfully completed residency in anesthesiology are eligible for additional training in the anesthesiology subspecialty of critical care medicine.

Like other critical care physicians, critical care anesthesiologists assess and develop a plan of care for the individual patient. Critical care anesthesiologists generally care for pre- and post-surgical patients. Skills unique, but not exclusive to critical care anesthesiologists, include airway and ventilator management, as anesthesiologists are considered to be "airway experts."

Fellowship in critical care anesthesiology is diverse. The minimum time commitment for a critical care fellowship in anesthesiology is one year. Training may include a wide variety of skills including organization and daily running of an Intensive Care Unit, invasive monitoring, ventilator management, transesophageal echocardiography as well as subspecialty rotations in nutrition, infectious disease, or general radiology. Critical care Fellows may rotate through a wide array of critical care settings. These include trauma ICU, neurosurgical ICU, cardiothoracic ICU, transplant ICU, burn ICU and surgical ICU.

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Many critical care anesthesiology teams function as a consulting service. They directly participate and coordinate patient care as part of a multidisciplinary team approach. Like other intensivists, they take a multidisciplinary approach to the individual patient and direct his or her care with the participation of the primary admitting service (surgeon). Other essential team members include respiratory therapists (RRTs), registered dietician, pharmacists Ph.D. (Pharm.D.), occupational and physical therapists, social worker, chaplain, and of course the critical care nursing staff. In academic practices, the critical care team includes a variety of residents (surgery and/or anesthesiology) as well as medical students. As a team, they manage the care of the individual patient and coordinate the surgical intensive care unit operation from infection control, quality control and improvement practices through the collection of data. This information is used to provide excellent health care as well as the conservation of limited and expensive resources. Collection and analysis of data become a vital role for the intensivist in order to improve quality of care, patient outcome and risk assessment, as well as cost reduction strategies. Further information on the field of critical care anesthesiology can be found at the Society of Critical Care Anesthesiologists (SOCCA) formerly ASCCA website (www.socca.org).

For more information on the field of critical care medicine, please see the Society of Critical Care Medicine website (www.sccm.org).

#### **Role of the Critical Care Anesthesiologist – Investigator**

Standardized practice in the ICU setting has resulted in a marked reduction in the morbidity and mortality of critically ill patients. Initiation of conservative ventilation practices, conservative blood transfusion, and aggressive glycemic control are a few strategies that have recently demonstrated improved outcome. The intensivist frequently has the opportunity to enroll patients in clinical research trials in an effort to improve patient outcome. Some clinicians dedicate a large amount of their time conducting clinical and/or basic science research. This practice is not specific to critical care anesthesiologists, but mentioned for those interested in becoming a clinician-investigator.

#### Conclusion

The field of anesthesiology is one that provides the opportunity to participate in the care of essentially all patient populations. The anesthesiologist intensivist has the opportunity to implement many of the techniques unique to anesthesiology training in order to provide exceptional care of critically ill surgical patients. Such techniques vary as follows: one patient may require transesophageal echocardiography for evaluation of hemodynamic instability while another may require regional anesthesia to alleviate pain or improve vascular compromise by creating a selective sympathectomy.

Critical care anesthesiologists can tailor their practice from critical care medicine to a combination of both critical care and anesthesiology. Medical students with an interest and aptitude for the surgical specialties, a lifelong love of learning and "cutting edge" medicine should strongly consider a career in anesthesiology as well as subspecialty training in critical care medicine.

## **CHAPTER 25**

## Political Activism and The American Society of Anesthesiologists Political Action Committee

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The American Society of Anesthesiologists Political Action Committee (ASAPAC) was formed in October 1991 by a vote of the American Society of Anesthesiologists (ASA) House of Delegates. The goal of the ASAPAC is to allow ASA membership to participate fully in the United States political process. The ASAPAC's mission statement is: "To advance the goals of the medical specialty of anesthesiology through the bipartisan support of candidates who demonstrate commitment to patient safety and quality of care."

Since its inception, ASAPAC has provided a unified and empowered voice to ASA and its individual members. ASA is the largest physician PAC and consistently in the top 50 of the over 3,000 association and corporate PACs. ASAPAC consistently raises over \$3 million in an election cycle.