

## Preface

# Current Topics in Critical Care for the Anesthesiologist



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### *Editors*

Anesthesiologists are leaders in perioperative medicine who are responsible for overseeing the care of patients undergoing surgical procedures. With a deep understanding of physiology and pharmacology, coupled with expert resuscitation and procedural skills, anesthesiologists are also particularly well-suited to practicing critical care medicine in medical, surgical, transplant, cardiothoracic, and neurological intensive care units (ICUs). Critical care anesthesiologists continue to expand in number and breadth of practice internationally.

The specialties of anesthesiology and critical care medicine have evolved significantly over recent decades and are integral parts of the patient care continuum. The committed involvement of critical care anesthesiologists in the COVID-19 pandemic further increased public awareness of the role and importance of this specialty in high-acuity patient care, as well as in research, education, policy and implementation, and leadership.

The scope of anesthesiology expertise throughout the world is broad. While the bulk of anesthesiologists in the United States practice as intraoperative care specialists, anesthesia care encompasses all aspects of perioperative medicine and has done so for decades. Modern ICUs began as respiratory care units to provide ventilatory support during large-scale poliomyelitis epidemics around the world. It was a small group of anesthesiologists who started the first United States-based respiratory care unit in the 1950s. Nearly seventy years later, anesthesiologists continue to move between the operating room and the ICU, and lately in great volume, to meet the health care demands of the COVID-19 pandemic.

The same pattern exists for the growing number of critically ill patients moving between the ICU and the operating room. With improvements in short-term survival

from acute and critical illness, as well as advances in surgical technology that allow intervention on more complex patients, anesthesiologists frequently encounter critically ill patients requiring surgical interventions. The perioperative management of these patients necessitates unmatched vigilance due to diminished physiologic reserve, high comorbidity burden, the systemic response to surgery, administration of anesthetics, and/or the available resources. Anesthesiologists of all subspecialties continue to care for critically ill patients during surgery, a trend that is likely to continue given the rising comorbidity burden of today's population.

*Anesthesiology Clinics* is pleased to introduce a special issue dedicated to critical care medicine for the anesthesiologist. This issue utilizes the breadth of expertise that is represented in our unique specialty, represented here by comprehensive review articles from members of the Society of Critical Care Anesthesiologists. It is our hope that this content helps anesthesiologists navigate the complexities of our patient population as we strive to improve outcomes for the highest acuity patients.

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