

## Book report Cardiopulmonary critical care

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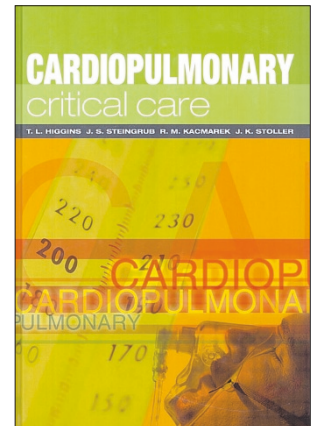
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Higgins TL, Steingrub JS, Kacmarek RM, Stoller JK (editors): *Cardiopulmonary Critical Care*. Oxford, UK: BIOS Scientific; 2002. ISBN 1-85996-237-8



*Cardiopulmonary Critical Care* is a conveniently small textbook that discusses clinically relevant physiology and treatment of cardiac and pulmonary derangements in intensive care unit patients. I appreciate the compact size of this textbook because my stamina for lifting heavy, more comprehensive textbooks is yielding to the electronic medium. By restricting discussions to cardiac and pulmonary areas, I found that this compact textbook comprehensively covered topics such as advanced ventilator modes and techniques, the variety of new drugs available to treat cardiac and hypertensive disorders, and the unique problems encountered in cardiac and thoracic surgical and trauma patients.

As pointed out by its editors, the book is designed for '... clinicians with intermittent responsibilities for critically ill patients in a world of competing demands.' With this goal in mind, I wonder whether this type of clinician will spend much time with the discussions of respiratory and cardiac physiology that are found at the beginning of the textbook. Some of these discussions are quite basic and are readily found in surgical, internal medicine, and anesthesiology textbooks, as well as in most critical care textbooks. Examples include discussions of acid-base abnormalities, oxygen transport, and lung mechanics.

I am convinced, however, that intermittent critical care physicians will find the discussions of newer and increasingly popular medications and treatment approaches very practical. When, for example, should vasopressin be used for hypotension? When should a patient with acute lung injury be placed in the prone position? Should lipid-lowering therapy be used in the immediate period after a patient presents with an acute coronary syndrome? The discussions of these topics are well referenced. The authors clearly state

when there is controversy and when supporting literature is lacking.

Critical care medicine has seen an explosion in new ventilator technologies. With the exception of pulmonary and critical care specialists, it is not unusual for physicians to be overwhelmed with advanced ventilator terminology and techniques. I found that the chapters on mechanical ventilation, including modes of ventilation, weaning from mechanical ventilation, and the use of noninvasive ventilation, were lucidly written and well referenced. The serious reader of these chapters will find the basics of volume and pressure targeted modes (traditional and untraditional), auto-PEEP (auto positive end-expiratory pressure), and weaning techniques clearly presented with clarifying illustrations. Discussions of advanced ventilator management including lung protective strategies, airway pressure release ventilation, and pressure control inverse ratio ventilation will be useful to the advanced critical care practitioner.

I appreciated the sections on postoperative care of cardiac and thoracic surgical and trauma patients. Although the physiology of these patients' derangements is well understood by most practitioners of critical care medicine, the unique problems with these perioperative patients and practice preferences of cardiothoracic surgeons and anesthesiologists may be poorly understood by physicians whose training did not span these disciplines. The chapters discuss the basics of care for these patients but they also include unique issues such as the use of independent lung ventilation, epidural and intrathecal narcotic administration, and management of injury to the recurrent laryngeal nerve. A table outlining complications of common and unusual thoracic surgical procedures will be useful to nonsurgical physicians who care for these patients.

A small section is dedicated to the use of portable ultrasonography to assist vascular access to the internal jugular vein – a cutting edge technology that is experiencing increasing application. Unfortunately, more studies documenting the safety and efficacy of portable ultrasound for vascular procedures are needed, but I believe that this technology will become standard soon. I hope that future editions of this book will provide even more detailed information to validate and describe this important adjunct to vascular catheterization.