
Clinical Application of Respiratory Care

Third Edition

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Preface to the Third Edition

Organization of training programs in critical care medicine, in-depth continuing education of critical care nurses, and maturing of the respiratory therapy profession has resulted in a quality and level of respiratory care that one only dared dream of 20 years ago. To facilitate such multidisciplinary care, the third edition of *Clinical Application of Respiratory Care* attempts to coalesce the known technology and science into a conceptual and nontechnical perspective that can be utilized by all personnel involved in respiratory care.

To accomplish this difficult task, the book is separated into eight sections, with each assuming the reader possesses the information covered in all the previous sections. The first section is a review of fundamental knowledge upon which the practice of respiratory care is based. These four chapters are referred to throughout the text and are meant to serve as review and reference. The second, third and fourth sections are in-depth presentations of the principles of bronchial hygiene therapy, oxygen therapy, and airway care. The fifth section presents an overview of the principles of cardiovascular monitoring and support essential to the practice of respiratory care.

Section VI discusses the pathogenesis, pathophysiology, and assessment of acute respiratory failure in a way that allows for present and future information to be coalesced and understood for the benefit of patient care. Section VII discusses the state of the art of ventilator care and positive end expiratory pressure therapy and attempts to place the complications and benefits of such therapy in perspective. A discussion of high-frequency ventilation is presented

primarily to impress upon the reader that this is presently an experimental technology which demands much research and comprehension before widespread clinical use can be justified.

Section VIII discusses the common entities encountered in respiratory care practice. Pulmonary pathology such as lung edema, acute lung injury, and chronic obstructive pulmonary disease is presented from the respiratory care perspective. The postsurgical patient is discussed in terms of respiratory care requirements. Finally, discussion of toxic inhalation, nervous system dysfunction, and nutritional disease as they pertain to respiratory care practice is presented.

Individuals involved in the care of critically ill patients are continually challenged by the rapid technologic and medical advances of respiratory care. This new edition attempts to place these advances in proper perspective and provide a foundation for applying future advancements.

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