**Ventilator Management**

Safe transport of critical care patients by fixed wing flight requires a clinical expert at the bedside providing advanced care to ensure best outcomes. The purpose of this quantitative correlational project was to determine to what degree a relationship exists between an educational program designed to achieve and sustain mechanical ventilator competency to empower clinical flight crew employed at a small fixed-wing air ambulance company to provide safe and effective airway management to critical ventilated patients in a remote fixed wing environment and the ventilated patient end tidal carbon dioxide (ETCO2) levels in flight. The project asked the question: In current clinical flight crews what is the effect of a standardized sustained mechanical ventilator competency program on ventilated patient ETCO2 levels during flight in remote practice settings across the United States as compared to the current practice of no standardized mechanical ventilator competency program? The small convenience sample of six flight crew members took a pre-posttest and completed education designed specifically for remote crew members. Results showed from pre-test to post-test, the Ventilator Knowledge Assessment indicated a statistically significant difference in rankings (Z = -2.24, p = .03), and from pre-test to post-test, the ETCO2 checklist ratings indicated a statistically significant difference in rankings (Z = -2.12, p = .03). The positive findings indicate all participants increased their knowledge and documentation compliance.

Approximately 90 percent of deaths from Duchenne Muscular Dystrophy (DMD) are the result of chronic respiratory failure and/or concurrent respiratory infection. Respiratory failure in neuromuscular diseases is of the restrictive type, resulting from progressive weakness of breathing muscles. The ventilator simply replaces or augments the failed bellows mechanism of the respiratory system. The use of assisted ventilation by individuals with Duchenne Muscular Dystrophy has been in effect for the past 25 to 30 years. As in other management issues of DMD, there is, and probably will continue to be, recurrent debate regarding the cost/benefit ratio of various treatment regimes. The authors come to this issue from an emotional, psychosocial, and ethical perspective, as well as a financial point of view. A necessary volume in any library's consumer health collection.

Increasingly, speech-language pathologists have been working with individuals who have tracheostomy and/or ventilator dependency. This new book covers all the basic science and clinical concepts that speech-language pathologists need to know to effectively manage these patients. You'll find expert discussions of a full range of topics: tracheostomy tubes & mechanical ventilators; complications associated with tracheostomy; ethical issues; speaking & swallowing options; and more! Plus, unique to this book, you'll find pulmonary and critical care topics integrated with the communication and swallowing information-an essential feature for speech-language pathologists who require a clear, concise reference for understanding respiratory physiology and mechanical ventilation. Highlights include: Numerous case studies, illustrations, and algorithms give you the information you need to be effective in a clinical setting Clinical competencies for assessing and measuring staff performance-essential in today's health care environment Everything you need to know to understand how to manage tracheostomy and ventilator dependency in one user-friendly volume Extensive coverage of ethical issues, pediatric considerations, and post-hospitalization care Tracheostomy and Ventilator Dependency: Management of Breathing, Speaking, and Swallowing is a must-have clinical reference for SLP's looking for a comprehensive, integrated approach to the management of these difficult cases. Written by experts in the field, you'll find it to be an invaluable guide to understanding the interdependencies of breathing, speaking, and swallowing.
This state-of-the-art reference provides current and effective disease-specific strategies for the management of patients receiving mechanical ventilation—emphasizing weaning processes, monitored sedation, minimization of complications and infection, and new modes of treatment for patients in critical care. Exploring ancillary approaches, noninvasive positive pressure ventilation, oxygenation, and bronchodilator therapy as options to optimize cost and reduce injury, Ventilator Management Strategies for Critical Care discusses methods to diagnose, manage, and avoid ventilator-associated pneumonia consequences of extubation failure mechanics of true closed-loop ventilation neuromuscular blocking agents and physiological disturbances therapy for chronic obstructive pulmonary disease (COPD) and more! With contributions by over 40 seasoned experts in the field, Ventilator Management Strategies for Critical Care is a valuable resource for intensive or critical care and pulmonary or critical care specialists, surgical critical care specialists, anesthesiologists, physiologists, psychiatrists and rehabilitation physicians, respiratory therapists, and medical school and graduate students in these disciplines.

Extracorporeal membrane oxygenation (ECMO), despite a long and troubled history, is very rapidly evolving into a therapy that can be safely and effectively applied across the world in patients experiencing acute cardiac and/or pulmonary failure. As experiences grow, there is a better understanding of nuances of the importance of teamwork, therapy guidelines and protocols, patient selection, and understanding the functional aspects of pump-circuit technology as it interfaces with human biology. The challenges in managing these very sick and complex patients cannot be understated. The goal of this text is to provide a framework for the development and successful growth of a program. Authors from Centers of Excellence Worldwide have shared their experiences in the full spectrum in dealing with this evolving field.

The VART, or Ventilation and Resuscitation Training, is designed to be intuitively conceptual. We want you to be able to use the VART acronym tool to approach and maintain your patients on mechanical ventilation. However, we do not just want to help you understand HOW to set them up, but we also want to help you think through common and uncommon mechanical ventilation issues. Moreover, we want your ventilator set up to mitigate any alarms that can be set off erroneously. We hope you'll see as you progress through the book and training the mechanical ventilator is an enigma that is absolutely tamable. VART will act as a template for which to begin approaching mechanical ventilation patients. It will be useful for what we call type 1 and type 2 ventilator problems. Type 1 mechanical ventilation problems are those that require a 'from scratch' approach. In these types of ventilator problems, the clinician must ensure adequate perfusion, calculate initial ventilator settings, confirm these initial settings are therapeutically reaching the patient, and then make safe adjustments based on SpO2 and EtCO2. Type 2 is much simpler. In type 2 ventilator problems, the ventilator is already initiated and the clinician's job is to ensure the patient is receiving appropriate and therapeutic mechanical ventilation. If not, they must make safe corrections and then reassess. THE VART ACRONYM While VART stands for the name, Ventilation and Resuscitation Training, the primary VART acronym tool used to assess and manage patients represents four areas of management: Verify, Assess, Revise, and Trend. For each of these 4 areas of management there are secondary VART Acronyms, or subdomains to be used to guide ventilator and patient management. The secondary VART acronym subdomains will be explained in their respective sections.

Own the #1 Best Seller and trusted resource for Pre-Hospital Emergency Medicine and Critical Care mechanical ventilation. Find out why hundreds of critical care providers, flight companies and universities around the globe have adopted this resource as their go-to reference. The goal of this book is to provide the most up to date information on
mechanical ventilation based on current research, evidence based practice and my experiences as a flight paramedic and educator. This book is a must own for flight nurses, flight paramedics, medical students, resident MD's, attending MD's, nurses, paramedics or respiratory therapists. "Ventilator Management" A Pre-Hospital Perspective, will take a comprehensive look at ventilator management strategies as it relates to emergency medicine, and pre-hospital transport in both EMS and HEMS industries. The book is written in a comprehensive, but conversational, format and will hit on all things related to critical care transport ventilation. The book includes current research concepts, oxygenation pathophysiology, ventilation theory, core clinical ventilation strategies, case application commentary and reference materials.

Audience: Critical Care Physicians, Pulmonary Medicine Physicians; Respiratory Care Practitioners; Intensive Care Nurses

Author is the most recognized name in Critical Care Medicine

Technical and clinical developments in mechanical ventilation have soared, and this new edition reflects these advances Written for clinicians, unlike other books on the subject which have primarily an educational focus

A practical application-based guide to adult mechanical ventilation This trusted guide is written from the perspective of authors who have more than seventy-five years' experience as clinicians, educators, researchers, and authors. Featuring chapters that are concise, focused, and practical, this book is unique. Unlike other references on the topic, this resource is about mechanical ventilation rather than mechanical ventilators. It is written to provide a solid understanding of the general principles and essential foundational knowledge of mechanical ventilation as required by respiratory therapists and critical care physicians. To make it clinically relevant, Essentials of Mechanical Ventilation includes disease-specific chapters related to mechanical ventilation in these conditions. Essentials of Mechanical Ventilation is divided into four parts: Part One, Principles of Mechanical Ventilation describes basic principles of mechanical ventilation and then continues with issues such as indications for mechanical ventilation, appropriate physiologic goals, and ventilator liberation. Part Two, Ventilator Management, gives practical advice for ventilating patients with a variety of diseases. Part Three, Monitoring During Mechanical Ventilation, discusses blood gases, hemodynamics, mechanics, and waveforms. Part Four, Topics in Mechanical Ventilation, covers issues such as airway management, aerosol delivery, and extracorporeal life support. Essentials of Mechanical Ventilation is a true “must read” for all clinicians caring for mechanically ventilated patients.

Ensure you understand one of the most sophisticated areas of respiratory care with Pilbeam's Mechanical Ventilation: Physiological and Clinical Applications, 7th Edition! Known for its simple explanations and in-depth coverage of patient-ventilator management, this evidence-based text walks you through the most fundamental and advanced concepts
surrounding mechanical ventilation and helps you understand how to properly apply these principles to patient care. This new edition is an excellent reference for all critical care practitioners and features coverage of the physiological effects of mechanical ventilation on different cross sections of the population. Additionally, student-friendly features promote critical thinking and clinical application - such as key points, AARC clinical practice guidelines, critical care concepts, updated learning objectives which address ACCS exam topics and are currently mandated by the NBRC for the RRT-ACCS credential. Brief patient case studies list important assessment data and pose a critical thinking question to you. Critical Care Concepts are presented in short questions to help you apply knowledge to difficult concepts. UNIQUE! Chapter on ventilator-associated pneumonia provides in-depth, comprehensive coverage of this challenging issue. Clinical scenarios cover patient presentation, assessment data, and treatment options to acquaint you with different clinical situations. Key Point boxes highlight need-to-know information. Logical chapter sequence builds on previously learned concepts and information. Bulleted end-of-chapter summaries help you to review and assess your comprehension. Excerpts of Clinical Practice Guidelines developed by the AARC (American Association for Respiratory Care) make it easy to access important information regarding indications/contraindications, hazards and complications, assessment of need, assessment of outcome, and monitoring. Chapter outlines show the big picture of each chapter's content. Glossary of mechanical ventilation terminology includes definitions to highlighted key terms in each chapter. NBRC exam-style assessment questions at the end of each chapter offer practice for the certification exam. NEW! Interprofessional education and practice concepts integrated throughout text and within respective chapters. NEW! Enhanced content on the physiological effects of mechanical ventilation application provides in-depth coverage of patient concerns. UPDATED! Content on ventilator modes in, Selecting the Ventilator Mode and Initial Ventilator Settings chapters. NEW! Revised Basic Concepts of Noninvasive Positive Pressure Ventilation chapter includes the latest practices in this area of respiratory care. NEW! Learning Objectives and end-of-chapter Review Questions reflect the updated content and the latest NBRC RRT-ACCS exam topics.

Covering almost all aspects of ventilation management, this book teaches clinical decision-making based on the patient’s disease. It features chapters on: non-invasive positive pressure ventilation for acute respiratory failure, home mechanical ventilation, high-frequency ventilation, nitric oxide and helium usage, and partial liquid and TGI. This comprehensive manual provides a clinical, yet practical, approach to treating tracheostomized and ventilator-dependent patients. Its organizational structure is conducive to learning, as information builds on itself progressively from chapter to chapter. Learners are provided with the clinical and case research information pertaining to specific aspects of care and are encouraged to apply that information to their patient’s needs on an individualized basis. Emphasis is also
placed on individualizing treatment and assessment protocols.  
From the authors of EKG's in a Nutshell, Dr. Sheppard and Dr. Giovane present a pocket guide on ventilator management. This guide is intended to walk a physician (young or old) through the basics of what a ventilator does and more importantly, how to manage a patient on the ventilator. In a straight-forward manner, Dr. Sheppard and Dr. Giovane go over the basic types of ventilation and will walk you through what each variable on a ventilator does and how to manipulate these values to successfully ventilate a patient. Finally, Dr. Sheppard and Dr. Giovane discuss acid-base problems in patients that are in the ICU and go over a systematic approach for patients with acid-base problems. 
In this book, you'll learn multiple new aspects of respiratory management of the newborn. For example, ventilator management of infants with unusually severe bronchopulmonary dysplasia and infants with omphalocele is discussed, as well as positioning of endotracheal tube in extremely low birth weight infants, noninvasive respiratory support, utilization of a protocol-driven respiratory management, and more. This book includes a chapter on noninvasive respiratory function monitoring during chest compression, analyzing the efficacy and quality of chest compression and exhaled carbon dioxide. It also provides an overview on new trends in the management of fetal and transitioning lungs in infants delivered prematurely. Lastly, the book includes a chapter on neonatal encephalopathy treated with hypothermia along with mechanical ventilation. The interaction of cooling with respiration and the strategies to optimize oxygenation and ventilation in asphyxiated newborns are discussed.
This book describes the issues and challenges that clinicians encountered in the management of older critically ill patients during the Covid-19 pandemic, and offers practical information on how to manage them. Older adults are more susceptible to complications such as acute respiratory distress syndrome (ARDS) as a result of viral pneumonia. In addition, they often have multiple comorbidities and are commonly frail, which means their various organs and systems, such as the respiratory system, have reduced functional reserves. As such, older adults are less able to react to acute stressors. During the current Covid-19 pandemic, older adult patients' mortality is increased. Further, the infection and death rates of elderly people in nursing homes and health care institutions are high. Management of older adults with Covid is complicated. The reduced availability of beds may limit their access to ICU. Moreover, the prognosis may be poor, and airway management and ventilation strategies have to take into account various clinical and physiological characteristics specific to older patients. This book is addressed to all allied professionals involved in the management of older critically ill patients and presents information collected and practical lessons learned from the clinical daily management of this population during the pandemic.
For patients who are unable to breathe on their own, mechanical ventilation is used to provide life-sustaining oxygen. Ventilation is a process that requires the diligent care of a medical team and a weaning process. If you have a family member or loved one on a ventilator, this guide may help. This book is written for those possessing intellectual interests in diseases related to the lungs as well as so-called "end of life" issues. This readership includes laymen and healthcare workers. Laymen, such as lawyers and ethicists, will find perplexing ventilator situations along with basic medical background on various topics. End-of-life issues should provide "food for thought." Ventilator-dependent patients exemplify many situations that impinge on all aspects of life. It is my objective, in writing this book, to provide readers with a balanced understanding regarding interactions involving ventilators, patients, and families. Life and death literally hang on this balance.
This book is a practical and easily understandable guide for mechanical ventilation. With a focus on the basics, this text begins with a detailed account of the mechanisms of spontaneous breathing as a reference point to then describe how a ventilator actually works and how to effectively use it in practice. The text then details: the various modes of ventilation commonly used in clinical practice; patient-ventilator interactions and dyssynchrony; how to approach a patient on the ventilator with respiratory decompensation; the optimal ventilator management for common disease states like acute respiratory distress syndrome and obstructive lung disease; the process of ventilator weaning; and hemodynamic effects of mechanical ventilation. Written for medical students, residents, and practicing physicians in a variety of different specialties (including internal medicine, critical care, surgery and anesthesiology), this book will instruct readers on how to effectively manage a ventilator, as well as explain the underlying interactions between it and the critically ill patient.

CLINICAL APPLICATION OF MECHANICAL VENTILATION, FOURTH EDITION integrates fundamental concepts of respiratory physiology with the day-to-day duties of a respiratory care professional. Utilizing the wide degree of topics covered, including airway management, understanding ventilator waveforms, and addressing critical care issues, students have the best resource available for understanding mechanical ventilation and its clinical application. Enhancing the learning experience are valuable illustrations of concepts and equipment, highlighted key points, and self-assessment questions in NRBC format with answers. Whether preparing for the national exam or double-checking a respiratory care calculation, this textbook provides the fundamental principles of respiratory care with the clinical guidance necessary for mechanical ventilation. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Who says understanding ventilator modes has to be hard? This book gives you easy to understand information that every RRT, RN, or Resident always wishes they had. Each mode is described in simple language and answers the three most important questions about ventilator modes: What the mode does, how it works, and when should it be used? Written by a critical care respiratory therapist, this book provides a great foundation to become a ventilator management authority. A total of fourteen different ventilator modes are described in detail including both conventional and high frequency ventilation. A bonus section also thoroughly describes Ventilator settings and terminology, as well as the three most common weaning parameters in use today! Whether your a Registered Nurse, Respiratory Therapist, Medical Resident or any allied health professional working in critical care units, you will find this book to be a great resource.

Mechanical ventilation is an essential life-sustaining therapy for many critically-ill patients. As technology has evolved, clinicians have been presented with an increasing number of ventilator options as well as an ever-expanding and confusing list of terms, abbreviations, and acronyms. Unfortunately, this has made it extremely difficult for clinicians at all levels of training to truly understand mechanical ventilation and to optimally manage patients with respiratory failure. Mechanical Ventilation was written to address these problems. This handbook provides students, residents, fellows, and practicing physicians with a clear explanation of essential physiology, terms and acronyms, and ventilator modes and breath types. It describes how mechanical ventilators work and explains clearly and concisely how to write ventilator orders, how to manage patients with many different causes of respiratory failure, how to "wean" patients from the ventilator, and much more.

Mechanical Ventilation is meant to be carried and used at the bedside and to allow everyone who cares for critically-ill patients to master this essential therapy.

Designed for courses in Mechanical Ventilation and/or Ventilation Graphics, this book guides readers from the basics in ventilator
design, function, and management to advanced interpretations of ventilator waveforms

The thoroughly revised second edition of the Oxford Textbook of Critical Care is a comprehensive multi-disciplinary text covering all aspects of adult intensive care management. Uniquely the book takes a problem-orientated approach providing a reference source for clinical issues experienced every day in the intensive care unit. The text is organized into short topics allowing readers to rapidly access authoritative information on specific clinical problems. Each topic refers to basic physiological principles and provides up-to-date treatment advice supported by references to the most vital literature. Where international differences exist in clinical practice, authors cover alternative views. Key messages summarise each topic in order to aid quick review and decision making. Edited and written by an international group of recognized experts from many disciplines, the second edition of the Oxford Textbook of Critical Care provides an up-to-date reference that is relevant for intensive care units and emergency departments globally. This volume is the definitive text for all health care providers, including physicians, nurses, respiratory therapists, and other allied health professionals who take care of critically ill patients. This print edition of The Oxford Textbook of Critical Care comes with a year’s access to the online version on Oxford Medicine Online. By activating your unique access code, you can read and annotate the full text online, follow links from the references to primary research materials, and view, enlarge and download all the figures and tables.

Medical Ventilator System Basics: A clinical guide is a user-friendly guide to the basic principles and the technical aspects of mechanical ventilation and modern complex ventilator systems. Designed to be used at the bed side by busy clinicians, this book demystifies the internal workings of ventilators so they can be used with confidence for day-to-day needs, for advanced ventilation, as well as for patients who are difficult to wean off the ventilator. Using clear language, the author guides the reader from pneumatic principles to the anatomy and physiology of respiration. Split into 16 easy to read chapters, this guide discusses the system components such as the ventilator, breathing circuit, and humidifier, and considers the major ventilator functions, including the control parameters and alarms. Including over 200 full-colour illustrations and practical troubleshooting information you can rely on, regardless of ventilator models or brands, this guide is an invaluable quick-reference resource for both experienced and inexperienced users.

This guideline defines ventilation and then natural ventilation. It explores the design requirements for natural ventilation in the context of infection control, describing the basic principles of design, construction, operation and maintenance for an effective natural ventilation system to control infection in health-care settings.

This book offers not only speech-language pathologists, but other allied health professionals and physicians, and expert source of the latest information in this field. From the basic anatomy and physiology of the respiratory and phonatory systems to the development of communication and swallowing programs in a variety of settings, it covers the field in a vividly descriptive and graphic format that captures the attention of the reader. This book will become a standard reference and a textbook for practitioners and clients alike.
This reference surveys current best practices in the prevention and management of ventilator-induced lung injury (VILI) and spans the many pathways and mechanisms of VILI including cell injury and repair, the modulation of alveolar-capillary barrier properties, and lung and systemic inflammatory consequences of injurious mechanical ventilation. Considering many emerging therapeutic options, this guide also reviews the wide array of clinical studies on lung protection strategies and approaches to ARDS patients at risk for VILI.

Emergency Management of the Hi-Tech Patient in Acute and Critical care helps practitioners stabilize and care for pediatric and adult patients who have specialized medical devices such as prosthetic valves, cochlear transplants, insulin pumps, orthopedic hardware, and ventriculoperitoneal (VP) shunts. Using a step-by-step approach to acute presentations of patients with clinical hardware, this concise yet comprehensive guide provides specific instructions for the initial evaluation and management of numerous clinical scenarios including device malfunctions, infections, trauma, surgical complications, and more. Encompassing management of both the patient and the device, the guide enables emergency and critical care clinicians to rapidly make appropriate treatment decisions without the immediate need for extensive research, extended discussions with subspecialists, or recalling complex diagnostic and therapeutic algorithms. Clear, concise, and easy-to-follow chapters—written by a panel of highly experienced experts across specialties—include numerous algorithms, figures, tables, diagrams, and color illustrations and clinical images. An invaluable resource for improving the quality of care for the unique hi-tech patient population, this advanced practical manual: Provides algorithms for the most common clinical scenarios of device malfunction and related complications Covers management of patients who have undergone major operations such as organ transplantation or complex congenital heart disease repair Presents detailed management plans for a wide range of hardware types and medical conditions Offers expert guidance to practitioners in settings where not all specialties are readily available, such as rural and remote areas or community hospitals Features contributions from a team of experts in various areas of adult and pediatric emergency and critical care medicine

Emergency Management of the Hi-Tech Patient in Acute and Critical Care is a must-have clinical reference and guide for pediatric and adult emergency medicine physicians, general pediatricians, internists, general practitioners, critical care specialists, and allied health practitioners.

This book is open access under a CC BY 4.0 license. It constitutes a unique source of knowledge and guidance for all healthcare workers who care for patients with sepsis and septic shock in resource-limited settings. More than eighty percent of the worldwide deaths related to sepsis occur in resource-limited settings in low and middle-income countries. Current international sepsis guidelines cannot be implemented without adaptations towards these settings, mainly because of the difference in local resources and a different spectrum of infectious diseases causing sepsis. This prompted members of the Global Intensive Care working group of the European Society of Intensive Care Medicine (ESICM) and the Mahidol-Oxford Tropical Medicine Research Unit (MORU, Bangkok, Thailand) - among which the Editors – to develop with an international group of experts a comprehensive set of recommendations for the management of sepsis in resource-limited settings. Recommendations are based on both current scientific evidence and clinical experience of clinicians working in resource-limited settings. The book includes an overview chapter outlining the current challenges and future directions of sepsis management as well as
general recommendations on the structure and organization of intensive care services in resource-limited settings. Specific recommendations on the recognition and management of patients with sepsis and septic shock in these settings are grouped into seven chapters. The book provides evidence-based practical guidance for doctors in low and middle income countries treating patients with sepsis, and highlights areas for further research and discussion.

Learn everything you need to safely and compassionately care for patients requiring ventilator support with Pilbeam's Mechanical Ventilation: Physiological and Clinical Applications, 6th Edition. Known for its simple explanations and in-depth coverage of patient-ventilator management, this evidence-based text walks readers through the most fundamental and advanced concepts surrounding mechanical ventilation and guides them in properly applying these principles to patient care. This new edition features a completely revised chapter on ventilator graphics, additional case studies and clinical scenarios, plus all the reader-friendly features that promote critical thinking and clinical application - like key points, AARC clinical practice guidelines, and critical care concepts - that have helped make this text a household name among respiratory care professionals.

UNIQUE! Chapter on ventilator associated pneumonia provides in-depth, comprehensive coverage of this challenging issue. Brief patient case studies list important assessment data and pose a critical thinking question to readers. Critical Care Concepts are presented in short questions to engage readers in applying knowledge to difficult concepts. Clinical scenarios cover patient presentation, assessment data, and treatment options to acquaint readers with different clinical situations. NBRC exam-style assessment questions at the end of each chapter offer practice for the certification exam. Key Point boxes highlight need-to-know information. Logical chapter sequence builds on previously learned concepts and information. Bulleted end-of-chapter summaries help readers to review and assess their comprehension. Excerpts of Clinical Practice Guidelines developed by the AARC (American Association for Respiratory Care) make it easy to access important information regarding indications/contraindications, hazards and complications, assessment of need, assessment of outcome, and monitoring. Chapter outlines show the big picture of each chapter's content. Glossary of mechanical ventilation terminology includes definitions to highlighted key terms in each chapter.

NEW! Completely revised chapter on ventilator graphics offers a more practical explanation of ventilator graphics and what readers need to know when looking at abnormal graphics. NEW! Additional case studies and clinical scenarios cover real-life scenarios that highlight the current trends in pathologies in respiratory care.

The second edition of Mechanical Ventilation and Intensive Respiratory Care functions as both an educational manual and a clinical reference for those involved in monitoring, managing, and delivering care to patients requiring respiratory intervention or mechanical ventilatory support. The book explains everything the nurse or other health care professional needs for safe and effective clinical practice.

Publisher.

This second edition has been completely reformatted and re-edited to provide you with a familiar, yet new learning experience. If you have the original Vent Hero textbook, this will further enrich your understanding with NEW artwork, figures, and most importantly, practice problems. If you have never read Vent Hero before, then get this version! Our goal is to help you hone your expertise of the mechanical ventilator, and then allow you to practice this expertise. All practice problems come with complete explanations. The original Vent Hero's mission was to present a unique approach to mechanical ventilation using current science and medical literature. This textbook continues that mission by bringing new knowledge and teaching modalities to the learner. Through a systematic approach, my methods will train you to apply and maintain mechanical ventilation in any setting, although it is geared towards the critical care and transport environments. Let's tame this beast together.
This issue of Clinics in Chest Medicine focuses on Advances in Mechanical Ventilation. Articles include: Mechanical Ventilation Design Features; Assessing Respiratory System Mechanical Function; Ventilator Induced Lung Injury; Managing Acute Lung Injury; Patient-Ventilator Interactions; Extracorporeal Gas Exchange; Preventing Ventilator Associated Infections; Ventilator Discontinuation Process; Ventilator Management of the Non-injured Lung; Non-invasive Ventilation; and more!