cause of loss of disability-adjusted life years. For most types of CVD early diagnosis and intervention are independent drivers of patient outcome. Clinicians must be properly trained and centres appropriately equipped in order to deal with these critically ill cardiac patients. This new updated edition of the textbook continues to cover all the different issues and controversies in intensive care, not only cardiologists but also critical care specialists, emergency physicians and healthcare professionals. The chapters cover the various acute cardiovascular diseases that need high quality intensive treatment as well as organisational issues, cooperation among professionals, and interaction with other specialities in medicine. SECTION 1 focuses on the definition, structure, organisation and function of ICU’s, ethical issues and quality of care. SECTION 2 addresses the pre-hospital and immediate in-hospital (ED) emergency cardiac care. SECTIONS 3-5 discuss patient monitoring, diagnosis and specific procedures. Acute coronary syndromes (ACS), acute decompensated heart failure (ADHF), and serious arrhythmias form SECTIONS 6-8. The main other cardiovascular acute care conditions are grouped in SECTION 9. Finally SECTION 10 is dedicated to the many concomitant acute non-cardiovascular conditions that contribute to the patients’ case mix in ICU. This edition includes new chapters such as low cardiac output states and cardiogenic shock, and pacemaker and ICDs: troubleshooting and chapters have been extensively revised. Purchasers of the print edition will also receive an access code to access the online version of the textbook which includes additional figures, tables, and videos to better help the diagnosis and therapeutic techniques of Intensive Care Medicine. The book will establish a common basis of knowledge and a uniform and improved quality of care across the field. The novel coronavirus 2019 (COVID-19) has caused a serious global pandemic in just eight months. Nearly every country and territory in the world has been affected by the virus. The virulence and infection rate of the virus are profound, and has required extreme social distancing measures across the globe in order to prevent overwhelming the healthcare services and hospitals. COVID-19 appears to have the greatest effects on elderly individuals and those who have co-morbid diseases, such as heart disease, asthma, and diabetes. As the peak begins to slow in many countries, the death rates remain high amidst justified fears of a second wave. A rapid worldwide mobilisation has begun to identify effective treatments and develop vaccines. This new volume will increase readers understanding of the ongoing COVID-19 pandemic through a series of chapters that address these concerns. Leading experts will discuss the effects of the virus in cases of co-morbidities, new treatment approaches, mental health aspects of the pandemic, and convey the results of survey studies. The book will be an excellent resource for researchers studying virology, metabolic diseases, respiratory disorders, and clinical scientists. The last section explores novel pathways and emerging therapeutic approaches including nitric oxide. The last section explores novel pathways and emerging therapeutic approaches including nitric oxide. The last section explores novel pathways and emerging therapeutic approaches including nitric oxide. The last section explores novel pathways and emerging therapeutic approaches including nitric oxide. The last section explores novel pathways and emerging therapeutic approaches including nitric oxide.
these timely topic-based reviews. This reference surveys current best practices in the prevention and management of ventilator-induced lung injury (VILI) and spans 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. It includes clinical chapters on the wide diversity of clinical protection strategies and approaches to ARDS patients at risk for VILI. Kendig, Chernick's Disorders of the Respiratory Tract in Children is the definitive medical reference book to help you confront critical challenges using the latest knowledge and techniques. You'll get the state-of-the-art answers you need to offer the best care to young patients. Tackle the toughest challenges and improve patient outcomes with coverage of all the common and rare respiratory problems found in newborns and children worldwide. Get a solid foundation of knowledge to better understand and treat your patients through coverage of the latest basic science and its relevance to clinical problems. Get comprehensive, authoritative coverage on today’s hot topics, such as interstitial lung disease, respiratory disorders in the newborn, congenital lung disease, swine flu, genetic testing for disease and the human genome, inflammatory cytokines in the lung, new radiologic techniques, diagnostic imaging of the respiratory tract, and pulmonary function tests. Learn from the experts with contributions from 100 world authorities in the fields of pediatrics, pulmonology, neurology, microbiology, cardiology, physiology, diagnostic imaging, anesthesiology, otolaryngology, allergy, and surgery. Lung Epithelial Biology in the Pathogenesis of Pulmonary Disease provides a one-stop resource for physicians, pathologists, and basic scientists interested in understanding the mechanistic basis for lung disease. The book provides access to knowledge of molecular and cellular aspects of lung homeostasis and repair, including the molecular basis of lung epithelial intercellular communication and lung epithelial channels and transporters. Also included is coverage of lung epithelial biology as it relates to fluid balance, basic ion/ fluid molecular processes, and human disease. Useful to physician and clinical scientists, the contents of this book compile the important and most current findings about the role of epithelial cells in lung disease. Medical and graduate students, postdoctoral and clinical fellows, as well as clinicians interested in the mechanistic basis for lung disease will benefit from the books examination of principles of lung epithelium functions in physiological condition. Provides a single source of information on lung epithelial junctions and transporters Discusses of the role of the epithelium in lung homeostasis and disease Includes capsule summaries of main conclusions as well as highlights of future directions in the field Covers the mechanistic basis for lung disease for a range of audiences This book is dedicated to the professional understanding of asthma signs and symptoms of acute asthma and provides a diagnostic and analytical therapeutic decision-making in emergency veterinary settings. It clearly defines the physiological and clinical principles fundamental to the management of the critically ill small animal patient. With clear guidelines for organizing an emergency/critical care unit, the book also discusses ethical and legal concerns. The 80 expert authors have created a clinically specific resource for the specialist, residents in training, veterinary practitioners, technicians and students. Published by Teton New Media in the USA and distributed by CRC Press outside of North America. This issue of Clinics in Chest Medicine focuses on Acute Respiratory Distress Syndrome and covers topics such as: Epidemiology and Definitions of ARDS, Acute Lung Injury, Environmental Risk Factors for ARDS, Obesity and Nutrition, Important Immunomodulators in ARDS?, Beyond SNPs-Genetics, Genomics and Other Omic Approaches to ARDS, Clinical Approach to the Patient with ARDS, The Immunocompromised Patient with ARDS: Role of Invasive Diagnostic Strategies, Clinical Trial Design in Prevention and Treatment of ARDS, Beyond Low Tidal Volume-Ventilating the Patient with ARDS, Prone Positioning in ARDS, and more! Great progress has been made since the first description of the acute respiratory distress syndrome by the Denver group in 1967 (Lancet). Although we introduced the term 'adult respiratory distress syndrome' in our second and more detailed description of the syndrome (ehest, 1971), this was probably amostake for the simple reason that children also suffer the same syndrome following acute lung insults. Today, the syndrome of acute respiratory distress in adults (ARDS) is recognized as a worldwide problem, but the prevalence of disease varies in different parts of the world. A huge amount of research has focused on the mechanisms of acute lung injury and yet the exact sequence of events and mediators in inflammatory cascade, which result in acute respiratory failure from ARDS, is not known but many possibilities exist. The definition of ARDS has been gradually modified in recent years and there are now collaborative research around the world to study mechanisms of lung injury and risk factors determining outcome of those which someday will result in improved approaches to management. Already, at least some centers are showing improved outcomes in ARDS, achieving an approximate 60% survival rate. In the past, the large series documented only about a 40% survivability taking all causes of ARDS. This apparent progress is likely attributable to more meticulous and disciplined care than any specific pharmacologic attack on the basic mechanism resulting in ARDS. This book offers an essential guide to managing the most debated hot topics of practical interest in anesthesia and intensive care. It reviews the state of the art in issues concerning both intensive care medicine and anesthesia. The contributors have been selected from around the world to cover the themes and research-based mechanisms of lung injury and risk factors that determine outcome of ARDS. The book features full color illustrations and provides state-of-the-art knowledge. The text reviews all significant aspects of oncologic ICU practices, with a particular focus on challenges encountered in the diagnosis and management of the critically ill cancer patient population. Comprised of over 140 chapters, the text explores such topics as the organization and management of an oncologic ICU, diseases and complications encountered in the oncologic ICU, multidisciplinary care, surgical care, transfusion medicine, special patient populations, critical care procedures, ethics, pain management, and palliative care. Written by worldwide experts in the field, Oncologic Critical Care is a valuable resource for intensivists, advance practice providers, nurses, and other healthcare providers, that will help close significant knowledge and educational gaps within the realm of medical care for critically ill cancer patients. ARDS: A Comprehensive Clinical Approach focuses on the clinical assessment and management of patients with ARDS. Covers recent advances in the scientific understanding of acute inflammatory respiratory failure, with an emphasis on clinical relevance. Discusses the definition, incidence, and prediction of ARDS and summarizes the results of therapy. Also examines clinical problems of infection in the lungs, tissue oxygen delivery, and cardiovascular function during acute respiratory failure. Other topics include the basis of respiratory measurements, new lung imaging techniques, effects of antiproteases in acute lung injury, and new treatments. Annotation copyright by Book News, Inc., Portland OR. This book presents a concise, evidence-based review of extracorporeal life support
(ECLS) for adult diseases. It describes the use of ECLS with patients who are experiencing severe hypoxic respiratory failure (ARDS and pneumonia), ventilatory failure (status asthmaticus and COPD), cardiogenic shock and circulatory or gas exchange failure following complications in cardiothoracic surgery, as well as its use as a bridge to lung transplant. Historically, clinical trials have demonstrated improved outcomes and adverse consequences of alternative treatments that are causing this modality to be more commonly adopted. Topics include a description of the complex physiology and technology underlying ECLS; the evidence base for its use in specific clinical conditions; vascular access techniques; daily management of the circuit and patient; guidance regarding the weaning and decannulation process and recommendations for crisis management and rehabilitation related to ECLS.

Extracorporeal Life Support for Adults is ideal reading for practicing physicians, nurses, perfusion specialists, therapists and critical care trainees who are considering whether to refer their patients for ECLS or are already providing ECLS and are seeking a practical reference to best practices and updated information. The Yearbook compiles the most recent, widespread developments of experimental and clinical research and practice in one comprehensive reference book. The chapters are written by well recognized experts in their field of intensive care and emergency medicine. It is addressed to everyone involved in internal medicine, anesthesia, surgery, pediatrics, intensive care and emergency medicine. (With approximately 90 contributions.) The acute respiratory distress syndrome (ARDS) is a complex disorder associated with rapid progressive lung inflammation, non-cardiogenic pulmonary edema, hypoxic respiratory failure and one or more well-defined risk factors, including sepsis and severe trauma. Since its original description in 1967, experimental and clinical evidence has provided considerable insight into the key roles deregulated systemic inflammation and coagulation play in this devastating clinical syndrome. Despite substantial advances in our understanding of the pathogenesis of ARDS, until recently, little progress had been made in uncovering clinical strategies to improve the outcome of patients with ARDS. However, over the past 10 years protective ventilation and other supportive management strategies have been identified that markedly improve the outcome in ARDS. More recently, research has identified patients at risk for the development of the syndrome. Currently, clinical trials are underway. 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. This two-volume book offers a comprehensive guide to anesthetic management of the critically ill patient, and begins in neurocritical care, critical care cardiology, and more critical care specialties. The topics covered include the principles of neurocritical care. Management of various neurological problems such as myasthenia gravis, Guillain-Barré syndrome, epilepsy, stroke and many more are discussed in detail. Subsequent sections address nursing care, physiotherapy and psychological care, issues related to brain death and organ donation, and common critical care interventions observed in neurological patients during their ICS stays. Each complication is discussed in detail, guiding readers in their clinical practice. In turn, the book's closing chapters cover e.g. the role of hypothermia and evidence-based practice. The book offers a valuable resource for all residents, fellows and trainees in the fields of neurointensive care and critical care; it will also benefit intensivists and neurocritical care experts. Preceded by: Clinical clerkship in inpatient medicine / Sanjay Saint. 3rd ed. c2010. Severe Community Acquired Pneumonia is a book in which chapters are authored and the same topics andichiency are repeated with different examples. This approach provides a unique opportunity to view the different perspectives and points of view on this subject. Severe CAP is a common clinical problem encountered in the ICU setting. This book reviews topics concerning the pathogenesis, diagnosis and management of SCAP. The book begins with the role of alcohol and severe respiratory failure. All chapters are highly relevant and form a practical guide to the care of the critically ill patient. The only available text to focus primarily on Acute Respiratory Distress Syndrome (ARDS). Thoroughly revised content and ten new chapters provide pulmonologists with the latest developments and applications of pharmacological and mechanical therapies needed to treat the debilitating and difficult condition of ARDS. Highlights include: the definition, epidemiology, pathology, and pathogenesis of ARDS complications such as transfusion-related injury, and endothelial and vascular dysfunction; the long-term outcomes of ARDS host defense and infection; the latest developments in ARDS therapy: glucocorticoid therapy, surfactant therapy, mechanical ventilation, and many more. The book provides practical guidance for clinicians in management of acute respiratory failure, including sepsis and severe trauma. It addresses ARDS in children. This up-to-date volume, written by experts in the field, will be of value for all health care practitioners seeking state of the art on the management of patients with this complex syndrome. Proceedings of a NATO ASI held in Corfu, Greece, June 15-25, 1997