Hemodialysis From Basic Research To Clinical Tria

DARRYL ENGLISH

Dialysis Therapy BoD – Books on Demand
Hemodialysis (HD) represents the first successful long-term substitutive therapy with an artificial organ for severe failure of a vital organ. Because HD was started many decades ago, a book on HD may not appear to be up-to-date. Indeed, HD covers many basic and clinical aspects and this book reflects the rapid expansion of new and controversial aspects either in the biotechnological or in the clinical field. This book revises new technologies and therapeutic options to improve dialysis treatment of uremic patients. This book consists of three parts: modeling, methods and technique, prognosis and complications.
Chronic Kidney Disease, Dialysis, and Transplantation Lippincott Williams & Wilkins
This book describes the past, present and future of dialysis and dialysis-related renal replacement therapies so that the reader can acquire a firm grasp of the medical management of acute and chronic renal failure. By becoming thoroughly conversant with the past and present of dialysis, a health care professional will be in a much better position to provide the best standard of care to patients suffering from renal failure. As the book highlights the unsolved operational obstacles in the field of renal replacement therapies, future innovators may be inspired to develop novel solutions to tackle these problems. This remarkable work is a must-read not just for health care providers in the dialysis industry, but for patients, dialysis equipment manufacturers as well as pharmaceutical companies.
Personalized Multi-Scale Modeling of the Atria: Heterogeneities, Fiber Architecture, Hemodialysis and Ablation Therapy BoD – Books on Demand
Here's an in-depth, quick-reference, problem-solving resource for those involved in the care of dialysis patients. More than 120 world-class authorities discuss dialysis techniques, mechanical considerations, and complications related to various diseases for both pediatric and adult patients. Selected annotated references and excellent cross-referencing between chapters help you find answers fast, and more than 100 photos, drawings, charts, and tables, mostly in color, clarify complex topics. Providing practical, immediately useful guidelines that can be applied directly to patient care, this book is a "must-have" for all dialysis caregivers. Presents the practice-proven experience of top experts in the field of dialysis treatment. Offers dialysis guidance for both adult and pediatric patients in one convenient source. Features a readable hands-on approach, allowing you to quickly review the complicated concepts of dialysis. Includes helpful annotated bibliography lists in each section for further in-depth research on any subject. Explains complex dialysis concepts through abundant diagrams, photos, line drawings, and tables. Features a new 4-color format, enabling you to find the guidance you need more quickly. Includes coverage of convective dialytic therapies and the results of recent clinical trials. Ensures that you keep current on pediatric dialysis concerns prevention and treatment with new chapters including prevention and treatment of bone disease, management of anemia, assessing quality of life in pediatric patients undergoing dialysis, and immunizations in children undergoing dialysis.
Hypertension: from basic research to clinical practice Elsevier
Hypertension: from basic research to clinical practice" contains a unique collection of selected

chapters written by experts and enthusiasts engaged in research and treatment of hypertension, a condition that affects around a billion people in the world. The chapters describe fundamental researches at cellular and molecular levels to the science, and art of treatment of the condition in clinical practice. The topics included ranges from pathophysiology of hypertension, through monitoring of hypertension, to the treatment of hypertension in different patient categories. It contains essential background information as well as cutting edge research, and state of the art treatment alternatives in this broad field. From the beginners, and research students to the expert clinicians, and established scientists, everybody has something to learn from this book.

Erythropoietin in Renal and Non-renal Anemias KIT Scientific Publishing

Book initiates with introductory material to hemodialysis technology and its historical evolution and later on divulging into the field of biomaterials. With this background, the book discusses selection criteria of a suitable biomaterial for synthesis of haemodialysis membranes along with illustration of a complete indigenous, low cost technology for spinning of haemodialysis fibres. Well illustrated description of instruments used for membrane characterization and biomedical engineering is also provided at suitable junctures to effectively present the concept including worked out examples. Present title can be a good textbook as well as a research material for membrane as well as biomedical engineering curricula and provides coverage for appropriate undergraduate and graduate students interested in hemodialysis membranes.

Chronic Kidney Diseases - Recent Advances in Clinical and Basic Research Karger Medical and Scientific Publishers

The pathological role of advanced glycation end products (AGEs) and of oxidative-carbonylic stress is well known in the context of diabetes. Moreover, there is also strong evidence that they play a pivotal role in the pathogenesis of some chronic disorders related to uremia, and namely to cardiovascular complications and dialysis-related amyloidosis. They may even play a crucial role in the loss of function of the peritoneal membrane in patients on peritoneal dialysis, a problem which limits the duration of such a treatment.Written by some of the most authoritative European experts, this publication includes up-to-date contributions on AGEs as related to diabetic nephropathy, hemodialysis and, particularly, peritoneal dialysis. The topics covered range from basic research (e.g. novel pathogenic pathways triggered by AGEs) to clinical issues, including substitutive therapy in uremic diabetic patients as well as original and new results from a clinical trial on peritoneal dialysis with a new bag.This publication will be of interest to nephrologists as well as those working in the field of diabetes or otherwise involved in AGE research, giving an idea into what direction research in this complex field is going and which will probably be the major clinical breakthroughs in the near future.

Handbook of Dialysis Therapy E-Book Karger Medical and Scientific Publishers

What regulation shall we have for the operation? Shall a man transfuse he knows not what. to correct he knows not what. God knows how (I)? Dr. Henry Stubbs Royal College of Physicians circa 1670 If dialysis therapy were a new phannaceutical product being evaluated by the FDA now, it might not be approved for marketing. The recommended dose, its potential toxicity, the side effects of under-or over-dialysis as well as its efficacy have been the subject of very few studies. The high mortality rate associated with the treatment may raise a few eyebrows. That it is a life-saving modality of treatment is undoubtedly true for more than 100,000 patients in the United States and for more than a million patients world wide. Because dialysis has extended the lives of many people by a variable period of time, most nephrologists have "rested on their laurels" and did not vigorously pursue studies to optimize these treatments. But facts have a way of intruding in all our lives and the facts are that the overall mortality rate of dialysis patients in the United States is rising and stands close to 25% per year and is closer to 33% per year for patients between the ages of 65 and 74 (2). These mortality figures are considerably higher for age-adjusted dialysis populations in Europe and particu larly in Japan, and certainly for the age-adjusted nonnal population.

Advances in Chronic Kidney Disease 2007 Karger Medical and Scientific Publishers

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Chronic Kidney Disease, Dialysis, and Transplantation Oxford University Press

This book targets three fields of computational multi-scale cardiac modeling. First, advanced models of the cellular atrial electrophysiology and fiber orientation are introduced. Second, novel methods to create patient-specific models of the atria are described. Third, applications of personalized models in basic research and clinical practice are presented. The results mark an important step towards the patient-specific model-based atrial fibrillation diagnosis, understanding and treatment.

Hemodialysis Karger Medical and Scientific Publishers

This book contains notable contributions from the well-known Vicenza course on hemodialysis and miniaturized wearable devices for renal replacement therapy. The main themes covered in this publication include cardio-renal syndromes as well as new technologies in hemodialysis, new dialysis membranes and techniques, the importance of vitamin D receptors in renal and extra-renal physiology, and the control of risk factors such as blood pressure and lipid disorders. Special interest is placed on new models of organization including large dialysis networks and health care economics. Moreover, acute kidney injury and its impact on the subsequent development of chronic kidney disease are discussed together with the use of modern biomarkers. Microfluidics, nanotechnology and miniaturized dialysis devices suitable for wearable ambulatory treatments are also covered in depth. The publication at hand is a useful tool for consultation by the clinician as well as for those involved in the care of patients with end-stage kidney disease.

Peritoneal Dialysis Springer Nature

The present book contains the Proceedings of a two day Symposium on Uremic Toxins organized at the University of Ghent in Belgium. A series of guest lectures, free communications and posters have been presented. An international audience of 163 scientists from 16 nationalities listened to and discussed extensively a spectrum of topics brought forward by colleagues and researchers who worked for many years in the field of Uremic Toxins. There is a striking contrast between all the new dialysis strategies available in the work to "clean" the uremic patients and the almost non-progression of our knowledge on uremic toxins in the past decade. In this sense the symposium was felt by all participants as a new start for the research in the biochemical field of the definition of uremia. If the present volume would stimulate new work in this field in order to define uremia, or identify the uremic toxins, the purpose of the organizers would be maximally fulfilled.

Clinical Nephrology Springer Science & Business Media

The pathological role of advanced glycation end products (AGEs) and of oxidative-carbonylic stress is well known in the context of diabetes. Moreover, there is also strong evidence that they play a pivotal role in the pathogenesis of some chronic disorders related to uremia, and namely to cardiovascular complications and dialysis-related amyloidosis. They may even play a crucial role in the loss of function of the peritoneal membrane in patients on peritoneal dialysis, a problem which limits the duration of such a treatment. Written by some of the most authoritative European experts, this publication includes up-to-date contributions on AGEs as related to diabetic nephropathy, hemodialysis and, particularly, peritoneal dialysis. The topics covered range from basic research (e.g. novel pathogenic pathways triggered by AGEs) to clinical issues, including substitutive therapy in uremic diabetic patients as well as original and new results from a clinical trial on peritoneal dialysis with a new bag. This publication will be of interest to nephrologists as well as those working in the field of diabetes or otherwise involved in AGE research, giving an idea into what direction research in this complex field is going and which will probably be the major clinical breakthroughs in the near future.

Annual Research Progress Report Springer Science & Business Media

The Core Curriculum covers physiology, chemistry, psychology of renal failure, life on dialysis, and technology including water treatment, safe cannulation, and equipment. It helps teach new dialysis technicians and nurses to be capable and compassionate care providers who understand what to do¿and why.

Prescribing Hemodialysis Karger Medical and Scientific Publishers

A comprehensive reference covering all aspects of the clinical management of adult and child dialysis patients. This edition includes seven new chapters including one on EPO use in dialysis patients and one on the HIV positive patient.

The End Stage Renal Disease Program: Treatment standards and methods Government Printing Office

Acute Kidney Injury (AKI) is a complex syndrome that is prevalent among hospitalized patients. In recent years, occurrence of AKI events has risen due to a growing susceptibility of fragile and elderly subjects and an increase in the use of complex procedures such as cardiovascular surgery and imaging techniques. Exposure to potentially nephrotoxic drugs, such as new chemotherapeutic agents, is also proving to be a cause of AKI. This book summarizes recent advances in various settings. A reappraisal of current definitions and staging classifications for AKI in the literature is followed by a description of new criteria for identifying patients at risk and characterizing early kidney damage by using biomarkers. Other important topics include the sequelae of AKI and AKI in special populations such as children, the elderly, and those with cancer. The effects of AKI and its consequences on healthcare expenditures are also addressed from several perspectives. AKI management requires the cooperation of different specialists to optimize outcomes. This book is thus a perfect tool not only for nephrologists, but for every specialist involved in the complicated endeavor of improving patient care.

Senate Report Elsevier Health Sciences

Continuous Renal Replacement Therapy (CRRT) is the standard of care for management of critically ill patients with acute renal failure. Part of the Pittsburgh Critical Care series, Continuous Renal Replacement Therapy provides concise, evidence-based, bedside guidance about this treatment modality, offering quick reference answers to clinicians' questions about treatments and situations encountered in daily practice. Organized into sections on theory, practice, special situations, and organizational issues, this volume provides a complete view of CRRT theory and practice. Tables summarize and highlight key points, and key studies and trials are included in each chapter. The second edition has been updated to include a new chapter on the use of biomarkers to aid in patient selection and timing, extensive revisions on terminology and nomenclature to match current standards, and the most up-to-date information on newly developed CRRT machines.

The Advancement of Knowledge for the Nation's Health Karger Medical and Scientific Publishers

Ronco and Cruz (both Dept. of Nephrology, San Bortolo Hospital, Vicenza, Italy) present a collection of 36 articles focusing on the physiological aspects of hemodialysis treatments as well as practical questions in the dialysis unit. Originally created as a supplement to the lectures presented at the 17th Annual International Course on Hemodialysis, a three-day event held in Vicenza, Italy, the text provides a valuable reference for the clinician interested in keeping up on developments in the field of hemodialysis. Thirty-six contributions by some 80 international academics, researchers, and practitioners are organized into ten sections covering dialysis technology, vascular access, epidemiology and practice, inflammation, fluid management, uremic toxicity, treatment efficacy, advanced techniques, calcium/phosphate homeostasis, and correction of anemia.

Progress in Hemodialysis World Scientific

The revised, updated Fourth Edition of this popular handbook provides practical, accessible information on all aspects of dialysis, with emphasis on day-to-day management of patients. Chapters provide complete coverage of hemodialysis, peritoneal dialysis, special problems in dialysis patients, and problems pertaining to various organ systems. This edition reflects the latest guidelines of the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) on hemodialysis and peritoneal dialysis adequacy and on nutrition. New chapters cover chronic kidney disease management in predialysis patients, frequent daily or nocturnal hemodialysis, and hemodiafiltration. Chapters on venous and arteriovenous access have been completely revised. Each chapter provides references to relevant Web sites.

Pediatric Dialysis Elsevier Health Sciences

Cancer is above all a heritable disorder of somatic cells and gene expression, but environment is also involved in its origin. Hereditary kidney cancer should prove valuable to understand the mechanisms of disease and to the development of therapeutic measures. Recently, scientists have succeeded in cloning and identifying the genes responsible for the following familial kidney cancers: von Hippel-Lindau disease, papillary renal cell carcinoma, tuberous sclerosis and Wilms tumor (all autosomal dominant). This book brings together some of the most recent advances made with respect to kidney cancers: Leading investigators present recent results on VHL, MET, TSC1 and TSC2 and WT1 genes, among others, as well as on environmentally induced kidney cancers (caused by long-term hemodialysis or induced chemically) and their treatments (surgery and gene therapy), providing an excellent survey of this field. This publication will be of interest to both researchers and clinicians concerned with cancer of the kidney.

Findings from the National Kidney Dialysis and Kidney Transplantation Study Springer

Contains expanded content on economics and outcomes of treatment, as well as acute kidney injury. Covers hot topics such as the genetic causes of chronic kidney disease, ethical challenges and palliative care, and home hemodialysis. Discusses the latest advances in hypertensive kidney disease, vitamin D deficiency, diabetes management, transplantation, and more. Provides a clear visual understanding of complex information with high-quality line drawings, photographs, and diagnostic and treatment algorithms.