The scientifically-proven strength training programme that turns back the clock - replacing fat with muscle, reversing bone loss, and increasing strength and energy.

Written for candidates sitting their MRCP Part 1 examination, this revision focuses on the recurring themes which come up in the questions. The book also includes a chapter on clinical pharmacology (which alone accounts for up to 30% of the questions), looking at aspects of drug-induced disease and drug interactions. Finally there is a chapter on statistics and epidemiology which is rarely covered in other texts, but is often included in the exam. Helps MRCP Part 1 candidates prepare for and pass their exam. Addresses an increasingly important topic in the exam. Addresses a topic that is vital to passing the exam, but which most candidates are poorly prepared for. Covers all the relevant basic science subjects plus includes clinical pharmacology. Is of use to candidates studying for other postgraduate exams such as PLAB, USMLE and MRCPCH. Is the first book of its kind in the membership market and is now regarded as essential for exam preparation.

Provides descriptions of the clinical features of diseases of childhood, and of therapeutic approaches, and also to review biological principles underlying etiology, diagnosis, and treatment.
This e-book starts with a comprehensive overview of the basic principles in Electrocardiography (ECG) with just enough depth to lift the reader above the crowd when it comes to understanding the physics behind ECG. Subsequent chapters provide an approach to the analysis of the ECG, followed by sections with insight into conduction abnormalities, arrhythmia, and myocardial ischemia. The e-book has a straightforward layout, a very clear format, and abundant ECG tracings for interested readers. The diagnostic algorithms provided in the volume prove to be very useful in daily medical practice. Overall, the e-book will help novice physicians, students and fellows to improve their knowledge in ECG interpretation. Electrocardiography (ECG) is, therefore, a very attractive book for all levels of physicians and health-care professionals interested in ECG and it is a welcome addition to the medical literature.

Including information on over 1,000 diseases and disorders, this text covers all aspects of patient care as well as the latest developments in medicine. 53 illustrations.

The Third Edition of this popular coat-pocket reference has been thoroughly updated, substantially condensed, and completely revised for greater practicality and accessibility. The new first section of this edition provides a quick, practical overview of common infectious diseases and clinical problems. The second section covers the major classes of antibiotics and includes information on side effects, dosages, and costs. The third section contains quick-reference dosing tables for all antibacterial, antiviral, and antifungal agents.

This second edition text is designed to prepare nursing students to be advocates for the aging population in all practice settings. Information on demographics, active and dependent aging, and leadership and management skills has been expanded. More ethical issues are also covered in this edition, such as living wills, guardianship, and power of attorney. An instructor's guide is also available.

Starch is one of the major polysaccharides employed as biopolymers by the food industry, and its wide range of applications has resulted in intense research of starch structure and technology. Written by an outstanding multidisciplinary team with complementary expertise in both academia and industry, Starches: Characterization, Properties, and Applications takes an innovative approach to the trends of starch production. The book provides an up-to-date overview of starch applications in the food, textiles, pharmaceuticals, chemical, agricultural, and plastic industries when used as a substitute for synthetic
polymers. Starch nanocomposites properties and starch-based blends biodegradability are also discussed.
The book covers the recent advances made in starch characterization using techniques such as atomic force microscopy and nuclear magnetic resonance. It discusses the main modified starches applications and enzymes used on starch industry. It also addresses starch characterization at the granular, macromolecular, and rheological levels. Under the editorial guidance of renowned food scientist, Andréa Curicacos Bertolini, this book to address starch characterization, applications and biodegradation of starch blends, making it an ideal resource for researchers and product developers interested in starch characterization, nanocomposites, and biopolymer degradation.

Diagnosis and Treatment in Internal Medicine equips trainee doctors with the essential skills and core knowledge to establish a diagnosis reliably and quickly, before outlining the management of the clinical condition diagnosed. Organised into three sections, the first provides a vital overview, whilst the second focuses on common presentations and diagnoses. Uniquely, this new book shows readers how to turn symptoms into a list of diagnoses ordered by probability - a differential diagnosis. Experienced consultants who teach trainees every day demonstrate how to derive an ordered differential diagnosis, how to narrow this down to a single diagnosis and if not, how to live with diagnostic uncertainty. The final section provides a comprehensive account of the management of system-based syndromes and diseases. Highly-structured chapters emphasize how common conditions present, how to approach a diagnosis, and how to estimate prognosis, treatment and its effectiveness. An onus is placed on the development of crucial diagnostic skills and the ability to devise evidence-based management plans quickly and accurately, making this an ideal text for core medical trainees.

Companion v. to: Medicine at a glance. 3rd ed. 2010.

Handbook offers information compiled from the UK Renal Pharmacy Group and features drug monographs guiding physicians in how to prescribe, prepare, and administer drugs to patients undergoing renal replacement therapy. Also provides a practice-based review of drug utilization in renal units across the UK.

A concise compilation of the known interactions of the most commonly prescribed drugs, as well as their interaction with nonprescription compounds. The agents covered include CNS drugs, cardiovascular drugs, antibiotics, and NSAIDs. For each class of drugs the authors review the pharmacology, pharmacodynamics,
pharmacokinetics, chemistry, metabolism, epidemiological occurrences, adverse reactions, and significant interactions. Environmental and social pharmacological issues are also addressed in chapters on food and alcohol drug interactions, nicotine and tobacco, and anabolic doping agents. Comprehensive and easy-to-use, Handbook of Drug Interactions: A Clinical and Forensic Guide provides physicians with all the information needed to avoid prescribing drugs with undesirable interactions, and toxicologists with all the data necessary to interpret possible interactions between drugs found simultaneously in patient samples.

Presents various techniques, tools, and strategies to evaluate the economic contribution of specific drug therapies at a policy level and for individual patient needs. "This is a reference without shortcomings. I recommend this highly informative, practical, well-referenced book to students and practitioners."

The goal of this book is not to follow a traditional systems or organ-based approach but rather to encourage our readers to think of the patients as complex biochemical systems. The book provides information that supplements the more traditional approaches and provides a detailed overview of the metabolic knowledge needed for surgical practice. The text reviews normal physiology, the pathophysiology of starvation and surgical stressors. It also focuses on appropriate nutritional repletion for various common disease states. Specifically, chapters address the severe metabolic demands created by systemic inflammation, infection, and major insults such as trauma and burns. All chapters are written by experts in their fields and include the most up-to-date scientific and clinical information. As biochemical aspects of modern medicine are advancing rapidly, chapters have been updated and several new chapters have been added in order to help readers keep pace in this race for state-of-the-art knowledge. Surgical Metabolism: The Metabolic Care of the Surgical Patient 2nd Edition is designed for clinicians across levels of training and provides clear and concise evidence based guidelines for the metabolic management and nutritional support of the surgical patient.

This book emphasizes the continuing necessity for simple, affordable methods of nutritional assessment which are accurate and biologically and statistically significant, which can give results rapidly, and which are understandable to scientists, administrators, and the population itself. It focuses mainly on physiologically, culturally, and economically vulnerable groups in developing countries. Topics covered include assessment of nutritional status, indirect assessment, assessment of ecological variables, methods of data collection, and aspects of planning and implementation with special references to large-
scale surveys.

Based on "The Virtual Conference on Chemistry and its Applications (VCCA-2020) – Research and Innovations in Chemical Sciences: Paving the Way Forward" held in August 2020 and organized by the Computational Chemistry Group of the University of Mauritius. The chapters reflect a wide range of fundamental and applied research in the chemical sciences and interdisciplinary subjects.

This volume is a guide for anyone who wants to know about, and avoid, the causes of back pain.

Ever since its establishment by USDA regulation in the mid-1980s, the Institutional Animal Care and Use Committee (IACUC) has evolved as the premier instrument of animal welfare oversight within research institutions in the United States. As biomedical research continuously grows, the role and impact of the IACUC has increased in scope and complexity. The IACUC Handbook has become "the Bible" for individuals when the time comes for them to serve on their institution’s IACUC. It provides a foundation for understanding and implementing the many and varied responsibilities of this committee. This Third Edition comprehensively addresses the significant changes in the pertinent regulatory environment and interpretation of applicable federal laws, regulations, and policies. It provides multiple references and commentary on the new edition of the Guide for the Care and Use of Laboratory Animals, the new AVMA Guidelines for the Euthanasia of Animals: 2013 Edition, and the Office of Laboratory Animal Welfare’s Frequently Asked Questions. The Third Edition also features an updated survey of IACUC practices from institutions around the United States, offering wisdom gained from their experience. In addition, it includes a chapter that provides an international perspective on how animal welfare reviews can function in other countries.

This handbook will enable radiation oncologists to appropriately and confidently select and delineate tumor volumes/fields for conformal radiation therapy, including intensity-modulated radiation therapy (IMRT), in patients with commonly encountered cancers. The orientation of this handbook is entirely practical, in that the focus is on the illustration of clinical target volume (CTV) delineation for each major malignancy. Each chapter provides guidelines and concise knowledge on treatment planning and CTV selection, explains how the anatomy of lymphatic drainage shapes target volume selection, and presents detailed illustrations of delineations, slice by slice, on planning CT images. While the emphasis is on target volume delineation for three-dimensional conformal therapy and IMRT, information is also provided on conventional radiation therapy field setup and planning for certain malignancies for which IMRT is
Biomedical engineering involves the application of the principles and techniques of engineering to the enhancement of medical science as applied to humans or animals. It involves an interdisciplinary approach which combines the materials, mechanics, design, modelling and problem-solving skills employed in engineering with medical and biological sciences so as to improve the health, lifestyle and quality-of-life of individuals. Biomedical engineering is a relatively new field, and involves a whole spectrum of disciplines covering: bioinformatics, medical imaging, image processing, physiological signal processing, biomechanics, biomaterials and bioengineering, systems analysis, 3-D modelling, etc. Combining these disciplines, systematically and synergistically yields total benefits which are much greater than the sum of the individual components. Prime examples of the successful application of biomedical engineering include the development and manufacture of biocompatible prostheses, medical devices, diagnostic devices and imaging equipment and pharmaceutical drugs. The purpose of this book is to present the latest research and development carried out in the areas of biomedical engineering, biomaterials and nanomaterials science and to highlight the applications of such systems. Particular emphasis is given to the convergence of nano-scale effects, as related to the delivery of enhanced biofunctionality.

The impact and importance of nanotechnology continues to grow, and nanomedicine and biotechnology have become areas of increased development. Biomedical engineers who work with biological processes and structures must have a deeply rooted understanding of the role of bionanotechnology, a rapidly evolving sector of the nanotechnology field. Bionanotechnology II: Global Prospects, a follow-up to the editor’s highly successful first volume, contains 26 entirely new contributions that provide a broad survey of research shaping this critical field. With coverage of technical and nontechnical areas, the book offers representative reporting on a wide variety of activity from around the world. It discusses the role of nanotechnology in novel medical devices, bioanalytical technologies, and nanobiomaterials. Topics discussed include: Emerging microscale technologies Bionanotech-based water treatment Tissue engineering and drug delivery Antimicrobial nanomaterials in the textile industry Bionanotechnology applications in plants and agriculture With contributions from researchers in Israel, Egypt, Iran, Jordan, Singapore, South Africa, Turkey, Thailand, Argentina, the United Kingdom, and the United States, this volume presents a worldwide perspective on some of the critical areas shaping bionanotechnology today.

Understanding Health Outcomes and Pharmacoeconomics presents an overview of the tools used to assess...
patient-related health status including associated health outcomes and the analyses that are used to determine cost-effectiveness in evaluating pharmacotherapeutic interventions to improve health. Including data and examples from several different countries, this comprehensive text will help students understand the basis for decisions made at the local and governmental level that impact the use of pharmaceuticals and provide a strong foundation for understanding the principles used in cost-effective decision making. With commentaries, cases studies, and highlighting international differences, this text concludes with a discussion of the need for a universal system for documenting medication use.

Understanding Health Outcomes and Pharmacoeconomics provides definitions of comparative effectiveness research (CER) and comparisons of pharmacoeconomic models (including cost-effectiveness, cost-benefit, and cost utility analyses). This inclusive text provides describes how CER is linked to various pharmacoeconomic models by providing examples from clinical trials with comparative pharmacotherapy and cost parameters. From the Introduction: The need for interprofessional education was made apparent in the 2003 Health Professions Education: A Bridge to Quality report. All healthcare professionals must be educated to deliver patient-centered care as members of an interprofessional team, emphasizing evidence-based practice, quality improvement approaches, and informatics. An enhanced understanding of pharmacoeconomic principles is a step in the right direction for healthcare practitioners as we do our best to ensure optimal medication therapy outcomes for patients and society at-large. George E. MacKinnon III, PhD, RPh, FASHP"

Intended for diabetes researchers and medical professionals who work closely with patients with diabetes, this newly updated and expanded edition provides new perspectives and direct insight into the causes and consequences of this serious medical condition from one of the foremost experts in the field. Using the latest scientific and medical developments and trends, readers will learn how to identify, prevent, and treat this challenging phenomenon within the parameters of the diabetes care regimen.

MRI can play an important role in identifying and localizing epileptogenic foci. This book aims to provide the clinical and imaging information required in order to decide whether an MRI scan is appropriate and whether it is likely to be sufficient to detect a lesion. The first part of the book presents background information on epilepsy patients and explains how to perform an MRI examination. Detailed attention is paid to functional MRI and post-processing, and the examination of subcategories of patients is also discussed. The second part of the book then documents the MRI findings obtained in the full range of epileptogenic lesions with the aid of high-quality images. Throughout, emphasis is
placed on guiding the reader in the correct interpretation of the imaging findings. Both radiologists and referring physicians will find this book to be an indispensable guide to the optimal use of MRI in epilepsy.

Nanomedicine is the field of science that deals with organic applications of medicine at the nano-scale level. It primarily addresses finding, anticipating, and treating sickness, as well as using nanotechnology to assist in controlling human frameworks at the cellular level. The nature of nanotechnology allows it to address numerous medical issues in humans. This book offers comprehensive information to better comprehend and apply multifunctional nanoparticles in nanomedicine, and thus open avenues in the field. Medicating at the nanolevel is an exceptional therapeutic avenue, as it avoids symptoms associated with conventional medicines. This book investigates recent insights into structuring novel drug delivery frameworks. It concentrates on the physical characteristics of drug delivery transporters, and the preliminary procedures involved in their use. The book offers in-depth detail that benefits academics and researchers alike, containing broad research from experts in the field, and serves as a guide for students and researchers in the field of nanomedicine, drug delivery, and nanotechnology.

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