Essential Cardiology

Clive Rosendorff
Editor

Essential Cardiology

Principles and Practice

Third Edition

Springer

Editor

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Preface to the Third Edition

This third edition reflects the very rapid advances that have been made in our understanding and management of cardiovascular disease since the first (2001) and second (2005) editions. All of the chapters from the second edition have been extensively reviewed and rewritten. There are new chapters on Cardiovascular Disease in Women, Diabetes and the Cardiovascular System, and Cardiovascular Disease in Cancer Patients, reflecting an increasing awareness of the special features and needs of these populations. With the very rapid developments in the molecular and cell biology of cardiovascular disease, the previous chapter on Cardiovascular Gene and Cell Therapy has been split into separate chapters on Cardiovascular Gene Therapy and Cardiovascular Cell Therapy. Otherwise, the general format of the second edition has been retained, to include sections on epidemiology, cardiovascular function, examination and investigation of the patient, disorders of rhythm and conduction, heart failure, congenital heart disease, coronary artery disease, valvular heart disease, hypertension, other conditions affecting the heart (cardiomyopathies and myocarditis, pericardial disease, pulmonary vascular disease, diseases of the aorta), and special populations (women, pregnancy, elderly, renal disease, diabetes, cancer) and miscellaneous (preventive cardiology, peripheral vascular disease, preoperative assessment, gene therapy, cell therapy).

I am very happy to welcome Drs. Ralph B. D'Agostino, Rhian M. Touyz, Mark Crowther, Patrick T. O'Gara, Bruce B. Lerman, Francis E. Marchlinski, Martin R. Cowie, Michael A. Gatzoulis, John M. Canty, Jr., Arthur S. Leon, Ronald Victor, Bernhard Maisch, Nanette K. Wenger, Jolien W. Roos-Hesselink, Jorge Plutzky, Edward T. H. Yeh, and Piero Anversa as new senior authors. My thanks to all contributors for their part in producing an outstanding learning resource.

I also wish to acknowledge my assistant Indrawattie Naipal, the production editor Michael D. Sova, and the editorial, production, and composition departments of Springer, for their encouragement and hard work.

Preface to the First Edition

“A big book,” said Callimachus, the Alexandrian poet, “is a big evil!” Not always. There are some excellent, very big encyclopedias of cardiology, wonderful as works of reference. There are also many small books of cardiology, “handbooks” or “manuals,” which serve a different purpose, to summarize, list, or simplify. This book is designed to fill a large gap between these extremes, to provide a textbook that is both substantial and readable and compact and reasonably comprehensive, and to provide an intelligent blend of molecular, cellular, and physiologic concepts with current clinical practice.

A word about the title. “Essential” is used here not in the sense of indispensable or absolutely required in all circumstances, for there is much more here than the generalist needs in order to practice good medicine, especially if there is easy access to a cardiology consultant. Rather, the word as used here denotes the essence or distillation or fundamentals of the mechanisms and practice of cardiology. The *Principles and Practice* subtitle affirms the idea that theory without a practical context may be academically satisfying but lacks usefulness, and practice without theory is plumbing. Good doctors understand the basic science foundation of what they do with patients, and great doctors are those who, as researchers or as teachers, see new connections between the basic sciences and clinical medicine.

I have been very fortunate to be able to assemble a team of great doctors who are outstanding physicians and scientists, most of them internationally recognized for their leadership position in their areas of specialization. They represent a careful blend of brilliance and experience, and, most of all, they all write with the authority of undoubted experts in their fields. They have all been asked to write up-to-date reviews of their respective areas of expertise, at a level that will be intelligible to noncardiologists as well as cardiologists, medical students, internal medicine residents, general internists, and cardiology fellows. I believe that they have succeeded brilliantly, and I know that they are all very proud to have participated as authors in this project. I am deeply grateful to all of them for the care and enthusiasm with which they carried out this task.

The organization of the book reflects pretty much the key issues that concern cardiologists and other internists at present; I have no doubt that the field will develop and change in time so that many of the modes of diagnosis and therapy described here will become much more prominent (such as gene therapy), while others may diminish or even disappear. This is what later editions of textbooks are for.

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