PREFACE

The field of cardiac arrhythmias has evolved greatly over the past twenty years as implantable devices have become increasingly utilized to help manage patients with cardiac arrhythmias. As devices have become more complex—with multiple programmable features and many different algorithms—the potential for interactions and confusing behavior is more common than ever. Whether troubleshooting a pacemaker tracing or assessing the cause of an inappropriate shock, a clear understanding of device function is crucial. Knowledge of device function and device algorithms is a must for clinicians implanting and managing these devices.

The goal of *Pacemakers and Implantable Cardioverter Defibrillators: An Expert's Manual* is to provide a reference text written by experts in the field that provides a detailed understanding of the different algorithms and the interactions that can occur across different device manufacturers.

This book is intended to serve as an aid to practicing electrophysiologists, fellows in training, as well as allied professionals, such as nurses and cardiovascular technicians, for both day-to-day use and to use as a study guide for certification examinations.

Pacemakers and Implantable Cardioverter Defibrillators is divided into three sections: The first section covers pacing and includes a range of topics from the basic understanding of the pulse generator to timing cycles and sensor driven pacing. The reader will gain insight that will not only be an in-depth look at pacing, but will also serve as a foundation for the other sections of the book. The second section on the implantable cardioverter defibrillator offers chapters that not only discuss arrhythmia detection and device classification, but also device testing and therapy. The third section builds on the prior sections to cover the topics of biventricular pacing and interactions with implantable devices, as with MRI.

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We believe that *Pacemakers and Implantable Cardioverter Defibrillators* is a comprehensive and detailed examination of device algorithms and programming options, and a valuable companion to any clinician interacting with patients with implantable devices. We are sincerely hopeful that the reader finds this book to be helpful for everyday clinical practice.

—The Editors