

Preface

Echocardiography remains the most commonly used cardiac imaging modality in clinical care despite the emergence of competing technologies such as magnetic resonance and computed tomography. Indeed, it is now considered an extension of the stethoscope and physicians without a primary interest in cardiac imaging, such as interventional cardiologists and internists, often view and interpret echocardiograms. Such an expansion of use has been further driven by the availability of smaller devices including some that are only slightly larger than a smartphone. Coincident with these developments there have been several technology advances in echocardiography such as tissue Doppler/strain and three-dimensional echocardiography. Furthermore, cardiac imaging is rapidly extending beyond the heart and laboratories are now incorporating various vascular imaging protocols as part of their clinical activity. Lastly, the emerging focus on continuing education and certification in echocardiography puts pressure on physicians to keep abreast of basic and new echocardiography.

There are several well-written echocardiography textbooks and atlases available. The intent of developing this particular handbook was: (1) to offer a succinct guide to echocardiography incorporating topics ranging from fundamental physical principles to important cardiac pathologies and novel technologies, (2) to provide this knowledge in a novel, condensed format enabling easy and quick reference to topics, (3) to enable a sonographer or echocardiographer to be able to use this handbook as a bedside guide to performance and interpretation of echocardiography and (4) to present content that would assist readers in preparing for competency tests in echocardiography, such as the echocardiography boards.

To give the reader the benefit of most meaningful and up-to-date content, this book sought to bring together a group of renowned experts in echocardiography with substantial experience in clinical echocardiography and particular expertise in various specific echocardiography technologies. The result is a compact yet highly informative handbook that provides as much if not more knowledge than most textbooks with a significantly less investment of time.

The concept and motivation to develop this book was born out of my years of interaction with cardiology trainees and sonographers in various echocardiography programs. Unbeknownst to them, I learnt as much from them about echocardiography as they did from me. More importantly, they all helped me develop into a better teacher. Although memory and space preclude me from mentioning all those who have helped in getting me here, there are several individuals who have been particularly helpful with developing this

book. This list will unfairly exclude many others who have been equally instrumental in our success and I ask their pardon. My deepest gratitude goes out to Allison Hays, Sourabh Verma, and Erin Michos, our associate editors. The book would not materialize without their efforts. I am also highly appreciative of the kind and generous contributions of all the authors, despite their hectic schedules, that have resulted in the outstanding content in this book. Others who have played a major role in getting us here include Hsin-Yueh Liang, Lea Dimaano, Aurelio Pinheiro, Jacob Abraham, Sue Phillip, Heather Richardson, Ken Cresswell, Vickie Spearman, Joe Wassil, and Nancy Grap. Many thanks to Mary Corretti, Ed Kasper, and Gordon Tomaselli for allowing me the time to complete this book. I would also like to particularly thank Cate Rogers and Grant Weston from Springer who were a delight to work with despite all the delays in the production of this book. Lastly, I am deeply indebted to Roselle and Anya Marithea whose understanding and patience allowed me to do this work, and my parents Marjorie and John, my brothers Jason and Francisco, whose help and encouragement all my life and assistance in the last several months allowed me to bring this book to fruition.

Theodore P. Abraham