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Interventional Cardiology

ERIC J. TOPOL PAUL S. TEIRSTEIN















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Interventional Cardiology

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To our many fellows who, over the years, have taught and inspired us so much.

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Preface

The seventh edition of Textbook of Interventional Cardiology has been more extensively updated than any previous edition. We have tried to fully capture the excitement and relentless maturation of the field of interventional cardiology. New chapters have been added to address radiation safety, interventions for heart failure, and (for many patients) the lack of need for hospitalization after interventions. Over the years, coronary intervention became increasingly predictable and, in many ways, routine, with the progressive maturation of stents and leaps forward in our adjunct pharmacologic therapies. In some ways, the field of interventional cardiology lost a bit of its pioneering spark that had so characterized this discipline from its inception in the 1980s. In those heady times, performing balloon angioplasty in the coronary artery was unpredictable. The predictability provided by stents was replaced with the upredictability of stent thrombosis. Interventional cardiologists and scientists had to not only rise to the challenge for each individual patient but also discover the vital innovations that would perpetuate the prominence and importance of the specialty.

Today, the challenges continue, but they have morphed considerably. The profile of patients who undergo coronary intervention has dramatically increased in complexity to include patients with advanced age and those with left main stem lesions, chronic occlusions, and what would formerly have been considered prohibitive complexity. Whatever happened to patients with Type A lesions? How can we break the maximal SYNTAX score barrier for percutaneous coronary intervention? At the same time, the crisis in health care economics has placed an undue burden on interventional cardiologists with respect to time, constraints in equipment selection, and fulfilling the responsibility of 24/7 coverage for such emergencies as acute myocardial infarction. There is also the incremental pressure from scorecarding initiatives and challenges to the appropriateness or overuse of procedures. But hopefully, all of these challenges are outweighed by the immense gratification of helping a symptomatic patient with limitations in quality of life get back to his or her baseline. Nowhere in medicine is this feeling more prevalent than in the transformative field of transcatheter aortic valve replacement.

This book is intended to serve as a resource for the interventional cardiology community, which not only includes practicing cardiologists but also the team involved in procedures, referring physicians, and those training or who have aspiration to train in this awe-inspiring field. We have changed authors for many chapters to provide a sense of newness and a fresh perspective, and in every chapter, we have sought the authors who are widely regarded as the true experts in the field. Going forward, we fully recognize that there needs to be increased cooperativity with cardiac surgeons—the rising popularity of hybrid and collaborative valve procedures that capitalize on the best parts of percutaneous and surgical approaches is clearly indicative of that collaboration.

We want to express our genuine and deep appreciation to the authors from all over the world who have graciously contributed to this new edition. They represent a remarkable brain trust from whom we have learned so much in the review of their input. We thank Taylor Ball and Dolores Meloni, both at Elsevier, for their first rate, professional support of this endeavor. And we are especially grateful to the interventional community of readers of this book who have supported it as the primary reference textbook source for nearly 30 years. That represents a large sense of responsibility for us to maintain, and we hope to have lived up to that, and perhaps exceeded expectations with the seventh edition.

> Eric J. Topol, MD Paul S. Teirstein, MD La Jolla, California, 2015

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