

# PREFACE

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Over the past decade, there has been a revolution in our understanding of both the pathophysiology and the management of acute coronary syndromes (ACS). The conversion of a stable atherosclerotic lesion to a ruptured plaque with thrombosis has provided a unifying hypothesis for the etiology of acute coronary syndromes. From this, the concept of a “spectrum” of myocardial ischemia has provided a framework for understanding the pathogenesis, clinical feature, treatment, and outcome of patients across the spectrum of myocardial ischemia.

Furthermore, a new paradigm for acute coronary syndromes has emerged with the results of the Thrombolysis in Myocardial Ischemia (TIMI) IIIB trial: Though thrombolytic therapy has proven clearly beneficial in patients with ST segment elevation, no benefit has been observed in patients with unstable angina or non-ST elevation MI. Angiographic studies, including TIMI I and TIMI IIIA, have shown that this difference in outcome results from the initial status of the infarct-related artery, which usually demonstrates 100% coronary occlusion in ST elevation MI, in contrast to a patent, but stenotic coronary lesion in unstable angina and non-ST elevation MI. Thus, a classification of ST elevation MI vs non-ST segment elevation ACS provides the critical information regarding the pathophysiology and acute management of the patient.

Accordingly, *Management of Acute Coronary Syndromes*, now in its *Second Edition*, is the first book to approach the management of acute coronary syndromes based on this new paradigm. The initial sections are devoted to understanding the pathophysiology of ACS, as well as the diagnostic tools for assessing patients. There are then two separate sections, one for ST elevation MI and the other for non-ST elevation ACS, which discuss the state-of-the-art management of these two groups of patients. I have felt privileged to have colleagues who are each world-renowned experts in their fields to provide concise, evidence-based recommendations on the optimal management of patients. The latest clinical trial data with numerous figures and tables are provided so that the reader will be able to have quickly available the key information that supports the recommended therapies. It is hoped that this compilation of the latest information will facilitate improvement in the management of patients with acute coronary syndromes.

On a personal level, my interest in acute coronary syndromes grew from many sources. First and foremost in guiding me has been my father, Paul Cannon, whose dedication to medicine and science has been a strong role model for me. His initial work in the measurement of coronary blood flow with radionuclide imaging two decades ago helped define the very basic pathophysiology of angina pectoris. He has also been one of my clinical teachers, as he has for many others at Columbia University College of Physicians and Surgeons over the past 30 years, teaching the students, housestaff, and fellows about the clinical presentation of angina to the acute management of myocardial infarction in the coronary care unit. The second major influence came from the writings of Fuster, Willerson, Braunwald, and others, on the emerging understanding of plaque rupture and coronary thrombosis in the pathophysiology of unstable angina. The new and rapidly

emerging field sparked both my interest and enthusiasm to focus on acute coronary syndromes where new treatments might be of benefit to patients. Next, beginning with my fellowship at the Brigham, it has been my privilege to work with Eugene Braunwald, for nearly a decade in conducting the Thrombosis in Myocardial Infarction (TIMI) trials. His expertise, insight, innovation, and judgment have been the greatest example any student of medicine could hope for. His support and teaching throughout has fueled my enthusiasm for design and participation in clinical trials and scientific research studies, with the goal of improving patient care. Finally, my numerous other colleagues in the TIMI Group, notably Carolyn McCabe, Michael Gibson, and Elliott Antman, and in the entire cardiology community have been a constant inspiration to delve deeper into trying to understand and improve the management of patients with acute coronary syndromes.

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