Acute kidney disease (from injury to failure) is an important clinical area particularly in the intensive care unit setting. As many as two thirds of critically ill patients experience an episode of acute kidney injury during the course of their illness, and about 5% of patients admitted to an intensive care unit will eventually require renal replacement therapy. In these patients, in-hospital mortality is extremely high, exceeding 50%, with acute kidney failure constituting a significant independent risk factor for death.

As intensive care practitioners are often the initial or even sole providers of care to seriously ill patients at risk for acute kidney injury, it is their responsibility to ensure that adequate measures to prevent its occurrence are taken. Moreover, it is their task to diagnose and evaluate incipient acute kidney disease, to initiate optimal supportive care, and where possible, definitive treatment of this disorder.

It is the editors’ hope that this book will provide a reference for clinicians practicing in the intensive care unit, to help guide their care of patients with acute kidney disease. In addition, we would like to address clinicians from many other fields who are regularly involved in the care of patients at risk for acute kidney injury. To that end we have brought together a group of international authors to cover the most recent information on definition, epidemiology, pathophysiology, and clinical causes of acute kidney injury and failure. Their understanding is a fundamental prerequisite for the prevention of this disorder. Moreover, the earlier parts of this book present differential diagnostic approaches for patients with acute kidney disease and a detailed outline of important measures for its clinical management and the prevention of complications. The subsequent parts are dedicated to the diagnosis and management of acute kidney disease in specific patient groups and in particular disorders. Finally, the various key aspects related to the adequate delivery of acute renal replacement therapy are detailed in the final parts of the book.

The chapters included in this book are derived from clinical experience and report the evidence for current clinical practice extracted from consensus statements or systematic analyses of the literature. We are truly indebted to the authors for their timely and expert contributions. We very much hope that the present book will be a tool for clinicians and a reference for investigators, students, and fellows.

The enormous effort of putting together such compilation of information and references should stimulate all colleagues to use this book as a starting point for good clinical practice that will certainly be enriched day by day in the coming
months and years, by the expanding body of literature that the field of acute kidney disease requires and also as a resource for continuous progress toward better care for our patients.

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