We all recognize that major advances have been made in the treatment of patients with leukemia, lymphoma, breast cancer, prostate cancer, colon cancer, and several other malignancies over the past few decades. As a consequence, the number of survivors after a cancer diagnosis has increased from 3 million in 1971 to about 14.5 million today, which experts attribute to advancements in diagnosis, treatment, and supportive care.

The field of hematology–oncology has exponentially grown to include rationally designed biologics and small molecules that target dysregulated pathways. Though the use of these new agents has led to remarkable improvement in overall survival, some of these drugs cause nephrotoxicity. More importantly, since cancer is primarily a disease affecting older people, the renal function of patients at the time of diagnosis may be compromised due to expected decline in renal function attributed to aging cells. Given that up to a quarter of patients with a cancer diagnosis will develop new onset renal impairment, a new discipline that aims to understand and manage the challenging overlapping fields of nephrology and oncology is needed.

The recent acknowledgment of the field of “Onconephrology” was heralded by the creation of the Onconephrology Forum (ONF) by American Society of Nephrology (ASN) in 2010 and the Cancer & the Kidney International Network (c-kin.org) in 2014. The publication of this textbook by Jhaveri et al., “Onconephrology: Cancer, Chemotherapy and the Kidney: A Case-Based Approach” is therefore timely and necessary. The rising awareness of this nascent scientific field will hopefully lead to improved patient outcomes.

Acute kidney injury in patients with cancer may occur by at least two mechanisms: it could arise as a complication of a particular cancer treatment (e.g., tumor lysis syndrome, drug-induced nephropathy, posttransplant related kidney diseases, surgical procedures) or be related to the neoplasm itself (e.g., renal cell cancer, anatomic obstruction due to a metastatic lesion or obstructing mass, or myeloma/amyloid affecting the kidney). It is a fact that a cancer patient that harbors or develops a kidney dysfunction has a worse prognosis than one without renal impairment.

Education about onconephrology is of utmost importance so that a true multidisciplinary approach can be developed. A growing number of treatment centers and patient support groups have started to offer onconephrology-based care programs.
More information and resources are urgently needed to help our patients understand their condition and to enhance their chances at survival.

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Preface

I am grateful and fortunate to have had great opportunities, family and friends, teachers and mentors. I graduated from Trivandrum Medical School in state of Kerala, south of India and had my initial clinical and research training in the early 80s at University of Newcastle upon Tyne under Professors David Kerr and Robert Wilkinson. My second set of clinical and research training—this time included laboratory research—was at the University of Minnesota under professors Thomas Hostetter and Karl Nath. I had an opportunity to hone my skills and establish myself as a researcher, teacher, and a clinician in the 90s while working under Professor John Bower at the University of Mississippi Medical Center. In 2006, I moved to University of Texas MD Anderson Cancer Center as the chief of nephrology section that had given me the opportunity to set up the first formal nephrology section dedicated to address the nephrology problems in cancer patients. It became immediately clear to me that most of the nephrological problems in cancer patients are unique and severe. This led me to form the first onconephrology forum of nephrologists in the USA taking care of cancer patients, which with the support of the president of ASN, professor Joseph Bonventre of Harvard Medical School became formally the ONF of ASN in 2011. This also was an opportune time in that I met in our first meeting the corresponding editor of this book, Dr. Kenar Jhaveri MD, associate professor at Hofstra North Shore–LIJ School of Medicine, trained at Memorial Sloan Kettering Cancer Hospital in cancer-related nephrology, who was equally enthusiastic and certain about the future of onconephrology. Indeed, onconephrology has become a burgeoning area in nephrology—a fertile area for learning, training, research, and improved patient care. Thanks to many nephrologists and scientists who have contributed and continued to contribute to the growth of onconephrology.

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