PART I: Dialysis Therapy for Adults

Section 1: Overview of ESKD

- 1 Demographics of the End-Stage Renal Disease Patient
- 2 Uremic Toxicity
- 3 Initiation of Dialysis Therapy

Section 2: Hemodialysis

- 4 Urea Kinetic Modeling for Guiding Hemodialysis Therapy in Adults
- 5 The Dialysis Prescription
- 6 Selecting a Dialyzer: Technical and Clinical Considerations
- 7 Water Treatment Equipment for In-Center Hemodialysis
- 8 Dialysate Composition
- 9 Safety Monitors in Hemodialysis
- 10 Methods of Hemodialysis Anticoagulation
- 11 Common Clinical Problems in Hemodialysis
- 12 Hemofiltration and Hemodiafiltration
- 13 Wearable and Implantable Renal Replacement Therapy
- 14 Home Preparation and Installation for Home Hemodialysis
- 15 Vascular Access
- 16 Cannulation of Arteriovenous Vascular Access: Science and Art
- 17 Central Venous Access for Hemodialysis
- 18 Noninfectious Complications From Vascular Access
- 19 Infectious Complications From Vascular Access

Section 3: Peritoneal Dialysis

- 20 Determination of Continuous Ambulatory Peritoneal Dialysis and Automated Peritoneal Dialysis Prescriptions
- 21 Peritoneal Dialysis Cyclers and Other Mechanical Devices
- 22 Peritoneal Dialysis Solutions
- 23 Solute Management With Peritoneal Dialysis
- 24 Volume Management With Peritoneal Dialysis
- 25 Peritoneal Access Devices, Placement Techniques, and Maintenance
- 26 Peritoneal Catheter Exit Site and Tunnel Infections
- 27 Peritonitis in Peritoneal Dialysis
- 28 Abdominal Hernias With Peritoneal Dialysis
- 29 Dialysate Leaks with Peritoneal Dialysis
- 30 Hydrothorax and Peritoneal Dialysis
- 31 Abdominal Catastrophes, Peritoneal Eosinophilia, and Other Unusual Events in Peritoneal Dialysis
- 32 Metabolic Complications of Peritoneal Dialysis

Section 4: Management of Uremic Complications

- 33 Acid–Base Homeostasis in Dialysis
- 34 Nutritional Management of Hemodialysis Patients
- 35 Intradialytic Parenteral Nutrition and Intraperitoneal Nutrition
- 36 Nutritional Management in Peritoneal Dialysis
- 37 Anemia and Its Treatment in Patients With End-Stage Kidney Disease

- 38 Resistance to Erythropoiesis Stimulating Agent (ESA) Treatment
- 39 Chronic Kidney Disease–Mineral and Bone Disorder
- 40 Phosphate Management in Patients with End-Stage Kidney Disease
- 41 Use of Vitamin D Sterols and Calcimimetics in Patients With End-Stage Renal Disease
- 42 Parathyroidectomy
- 43 Acquired Cystic Kidney Disease

Section 5: Management of Co-Existing Illnesses and Special Populations

- 44 The Challenges of Blood Pressure Control in Hemodialysis Patients
- 45 Arrhythmias in Hemodialysis Patients
- 46 Management of Ischemic Heart Disease, Heart Failure, and Pericarditis in Patients Undergoing Long-Term Dialysis
- 47 Avoidance and Treatment of Cardiovascular Disease in Dialysis
- 48 Management of Dyslipidemia in Long-Term Dialysis Patients
- 49 End-Stage Kidney Failure in the Diabetic Patient
- 50 Care of Elderly Dialysis and End-Stage Kidney Disease Patients
- 51 Liver Disease and Gastrointestinal Disorders in Dialysis Patients
- 52 Abnormalities of Thyroid Function in Chronic Dialysis Patients
- 53 Care of the Human Immunodeficiency Virus–Infected End-Stage Kidney Disease Patient
- 54 COVID-19 and Dialysis Patients
- 55 Psychosocial Issues in Patients Treated With Dialysis
- 56 Evaluation and Treatment of Sexual Dysfunction
- 57 Pregnancy in Dialysis Patients
- 58 Principles of Drug Usage in Dialysis Patients
- 59 Medication Management
- 60 Physical Activity, Function, and Exercise-Based Rehabilitation for People on Dialysis
- 61 Physical, Psychosocial, and Vocational Rehabilitation of Patients Undergoing Long-Term Dialysis
- 62 Preventive Care in End-Stage Renal Disease

Section 6: Systems Management for the Care of Dialysis Patients

- 63 Ethical Considerations in the Care of Dialysis Patients: The New Paradigm
- 64 Improving Outcomes for End-Stage Renal Disease Patients: Shifting the Quality Paradigm
- 65 Quality, Safety, Accountability, and Medical Director Responsibilities
- 66 Application of Telemedicine to Kidney Failure Patients

Section 7: Acute Kidney Injury and Poisonings

- 67 Continuous Renal Replacement Therapies for Acute Kidney Injury
- 68 Anticoagulation for Continuous Renal Replacement Therapy
- 69 Treatment of Poisoning with Extracorporeal Methods

PART II: Dialysis Therapy for Children

- 70 Vascular Access and Peritoneal Dialysis Catheter Placement in Children
- 71 Infant Hemodialysis
- 72 Urea Kinetic Modeling for Hemodialysis Prescription in Children

- 73 Alternate Hemodialysis Prescriptions in Children
- 74 Anticoagulation in Children Undergoing Hemodialysis, Continuous Renal
- Replacement Therapy, or Apheresis Therapy
- 75 Prescribing Peritoneal Dialysis in Children
- 76 Nutritional Management of Children Undergoing Peritoneal Dialysis
- 77 Peritoneal Dialysis in Neonates and Infants
- 78 Dialysis for Inborn Errors of Metabolism
- 79 Neurocognitive Function in Pediatric Dialysis
- 80 Growth in Children With End-Stage Kidney Disease
- 81 Adequacy of Peritoneal Dialysis/Assessing Peritoneal Function in Pediatric Patients
- 82 Continuous Renal Replacement Therapy in Pediatric Patients
- 83 Prevention and Treatment of Bone Disease in Pediatric Dialysis Patients
- 84 Management of Anemia in Children Undergoing Dialysis
- 85 Prevention and Treatment of Cardiovascular Complications in Children Undergoing Dialysis
- 86 Infectious Complications in Children Undergoing Dialysis
- 87 Caring for the Teenager in an Adult Unit

Index