

Contents

Contributors, ix

Series Foreword, xvi

Preface, xvii

Abbreviations, xviii

About the Companion Website, xxiv

PART 1: BASIC TECHNIQUES AND PROCEDURES, 1

Section Editor: John M. Oropello

- 1** Airway Management, 3
Michael Kitz
- 2** Sedation and Analgesia, 10
Colin J. Sheehan and Michael Kitz
- 3** Vascular Access, 17
Jennifer Wang and John M. Oropello
- 4** Bedside Ultrasound, 26
Daisi Choi and John M. Oropello
- 5** Bronchoscopy, 37
Moses Bachan and Zinobia Khan
- 6** Bedside Percutaneous Dilational Tracheostomy, 42
George Coritsidis and Viren Kaul
- 7** Nutritional Support and Total Parenteral Nutrition, 49
Rohit R. Gupta and Roopa Kohli-Seth
- 8** Glycemic Control, 55
Amira Mohamed and Adel Bassily-Marcus
- 9** Prevention of Complications, 62
Anthony R. Manasia and Nidhi Kavi
- 10** Palliative Care, 68
Umesh K. Gidwani and Nidhi Kavi

PART 2: CARDIOVASCULAR CRITICAL CARE, 73

Section Editor: Umesh K. Gidwani

- 11** Hemodynamic Monitoring, 75
Josue Rivera and Leila Hosseinian

- 12** Vasoactive Drugs, 82
Ajay S. Vaidya and Umesh K. Gidwani
- 13** Mechanical Circulatory Support, 89
Natasha Pradhan, Tim Hinohara, and Umesh K. Gidwani
- 14** Acute Hypertensive and Aortic Syndromes, 102
Gregory W. Serrao and Umesh K. Gidwani
- 15** Cardiac Arrhythmias, 108
Jorge Gonzalez-Panizo and Jacob S. Koruth
- 16** Acute Coronary Syndromes, 123
Matthew Katz and Umesh K. Gidwani
- 17** Heart Failure Management, 139
Raymond E. Bietry
- 18** Shock Syndromes, 148
Radha S. Gopalan and Ewelina Wojtaszek
- 19** Cardiac Arrest, 159
Eyal Herzog, Lee Herzog, Emad F. Aziz, and Stephan A. Mayer

PART 3: PULMONARY CRITICAL CARE, 167

Section Editor: Hassan Khouli

- 20** Respiratory Monitoring, 169
Ismeni Kourouni, Edward Eden, and Janet M. Shapiro
- 21** Mechanical Ventilatory Support, 184
Nisha Kotecha, Mark Collazo, and Kamal Medlej
- 22** Non-Invasive Positive Pressure Ventilation, 194
Anirban Basu, Raymonde Jean, and Fulvia Milite
- 23** Acute Respiratory Distress Syndrome, 203
Bashar M. Mourad and Keith M. Rose
- 24** Bronchospasm and Chronic Obstructive Pulmonary Disease, 216
Karishma Parekh and E. Mirna Mohanraj
- 25** Weaning from Mechanical Ventilation, 231
Steven Chakupurakal and John Cardasis

PART 4: NEUROLOGIC CRITICAL CARE, 241

Section Editor: Stephan A. Mayer

- 26** Delirium, 243
Anil Ramineni and Neha Dangayach
- 27** Stroke, 250
Irene R. Boniece

- 28** Neurotrauma, 265
Zachary L. Hickman and Konstantinos Margetis
- 29** Status Epilepticus, 275
Jiyeoun Yoo
- 30** Intracranial Pressure and Neuromonitoring, 284
Pavís Laengvejkal and Stephan A. Mayer
- 31** Coma and Brain Death, 293
Errol Gordon and Stephan A. Mayer
- 32** Toxicology and Drug Reactions, 299
Neha N. Goel, Stephanie Hernandez, and Lisa Rho

PART 5: SURGICAL CRITICAL CARE, 309

Section Editor: Adel Bassily-Marcus

- 33** Gastrointestinal Bleeding, 311
Alisan Fathalizadeh and Pak Shan Leung
- 34** Acute Abdomen and Abdominal Sepsis, 321
Onaona U. Gurney and Leon D. Boudourakis
- 35** Abdominal Compartment Syndrome, 326
Leon D. Boudourakis and Onaona U. Gurney
- 36** Acute Mesenteric Ischemia, 330
Rami O. Tadros and Chien Yi M. Png
- 37** Surgical Trauma, 337
Eric S. Weiss and Pak Shan Leung
- 38** Burns, 347
Eric S. Weiss and Pak Shan Leung
- 39** Acute Hepatic Failure, 359
Sreeparna Ghosh and Adel Bassily-Marcus
- 40** Abdominal Organ Transplantation, 365
Parissa Tabrizian, Kiumars Ranjbar Tabar, Ron Shapiro, Kishore R. Iyer, and Sander Florman
- 41** Obstetric Emergencies, 377
Zachary D. Kuschner and Adel Bassily-Marcus

PART 6: INFECTIOUS DISEASES, 387

Section Editor: Janet M. Shapiro

- 42** The Febrile Patient, 389
Gagangeet Sandhu
- 43** Sepsis, 402
Danish S. Malik, Gabriela Bambrick-Santoyo, Karen McKenna, Rachael Schneider, and Richard Lee

- 44** Infections Acquired in the Intensive Care Unit, 414
James S. Salonia and Andre Sotelo
- 45** Antimicrobial Therapy, 429
Steven B. Levy, Alejandro Díaz Chávez, and Amy S. Rosenberg
- 46** Pneumonia, 449
David Young and Joseph P. Mathew
- 47** Central Nervous System Infections, 463
Susannah L. Kurtz, Swathi Sangli, and Rupendra Swarup
- 48** Acquired Immune Deficiency Syndrome, 480
Sudhir Dudekonda and Gopal Narayanswami

PART 7: RENAL DISORDERS, 491

Section Editor: Paru Patrawalla

- 49** Fluid Resuscitation, 493
Navitha Ramesh and Alexandra Adams
- 50** Acute Kidney Injury, 500
Angela M. Love, Adam Rothman, and Alfredo Astua
- 51** Dialysis, 507
Lina Miyakawa, Michael Bergman, and Vikram Dhawan
- 52** Electrolyte Disorders, 513
Eric E. Bondarsky, Alope Chakravarti, and Paru S. Patrawalla
- 53** Acid–Base Disorders, 537
Michael Bergman, Lina Miyakawa, and Young Im Lee

PART 8: HEMATOLOGY AND ONCOLOGY, 543

Section Editor: Hooman Poor

- 54** Blood Products and Transfusions, 545
Matthew Durst and Hooman Poor
- 55** Anticoagulation-Related Bleeding, 552
Vaishnavi Kundel and Lisa Richman
- 56** Coagulopathy and Thrombocytopenia, 561
Robert J. T. Hiensch and Alison Lee
- 57** Venous Thromboembolism and Pulmonary Embolism, 575
Nan Li and Hooman Poor
- 58** Oncologic Emergencies, 586
Catherine L. Oberg and Glen B. Chun

Index, 596