

Contents

Contributors/vii

Foreword/xxi

Foreword/xxiii

Preface/xxv

Volume 1

Part I

Basic Considerations 1

1. Leadership in Surgery 3
Stephen Markowiak, Hollis Merrick, Shiela Beroukhim, Jeremy J. Laukka, Amy Lightner, Munier Nazzal, Lee Hammerling, James R. Macho, and F. Charles Brunnicardi
2. Systemic Response to Injury and Metabolic Support27
Siobhan A. Corbett
3. Fluid and Electrolyte Management of the Surgical Patient.....83
Matthew D. Neal
4. Hemostasis, Surgical Bleeding, and Transfusion.....103
Ronald Chang, John B. Holcomb, Evan Leibner, Matthew Pommerening, and Rosemary A. Kozar
5. Shock131
Brian S. Zuckerbraun, Andrew B. Peitzman, and Timothy R. Billiar
6. Surgical Infections157
Robert E. Bulander, David L. Dunn, and Greg J. Beilman
7. Trauma183
Clay Cothren Burlew and Ernest E. Moore
8. Burns251
Jeffrey H. Anderson, Samuel P. Mandell, and Nicole S. Gibran
9. Wound Healing271
Munier Nazzal, Mohammad F. Osman, Heitham Albeshri, Darren B. Abbas, and Carol A. Angel
10. Oncology305
William E. Carson III, Funda Meric-Bernstam, and Raphael E. Pollock
11. Transplantation355
David L. Dunn, Angelika C. Gruessner, and Rainer W.G. Gruessner
12. Quality, Patient Safety, Assessments of Care, and Complications397
Martin A. Makary, Peter B. Angood, and Mark L. Shapiro

13. Physiologic Monitoring of the Surgical Patient.....433
Anthony R. Cyr and Louis H. Alarcon
14. Minimally Invasive Surgery, Robotics, Natural Orifice Transluminal Endoscopic Surgery, and Single-Incision Laparoscopic Surgery453
Donn H. Spight, Blair A. Jobe, and John G. Hunter
15. Molecular Biology, The Atomic Theory of Disease, and Precision Surgery.....479
Xin-Hua Feng, Xia Lin, Xinran Li, Juehua Yu, John Nemunaitis, and F. Charles Brunnicardi

Part II

Specific Considerations 511

16. The Skin and Subcutaneous Tissue513
Patrick Harbour and David H. Song
17. The Breast541
Catherine C. Parker, Senthil Damodaran, Kirby I. Bland, and Kelly K. Hunt
18. Disorders of the Head and Neck613
Antoine Eskander, Stephen Y. Kang, Michael S. Harris, Bradley A. Otto, Oliver Adunka, Randal S. Weber, and Theodoros N. Teknos
19. Chest Wall, Lung, Mediastinum, and Pleura.....661
Katie S. Nason, Rose B. Ganim, and James D. Luketich
20. Congenital Heart Disease751
Raghav Murthy, Tabitha G. Moe, Glen A. Van Arsdell, John J. Nigro, and Tara Karamlou
21. Acquired Heart Disease801
Matthew R. Schill, Ali J. Khiabani, Puja Kachroo, and Ralph J. Damiano Jr
22. Thoracic Aneurysms and Aortic Dissection853
Scott A. LeMaire, Ourania Preventza, and Joseph S. Coselli
23. Arterial Disease897
Peter H. Lin, Carlos F. Bechara, Changyi Chen, and Frank J. Veith
24. Venous and Lymphatic Disease981
Atish Chopra, Timothy K. Liem, and Gregory L. Moneta
25. Esophagus and Diaphragmatic Hernia1009
Blair A. Jobe, John G. Hunter, and David I. Watson
26. Stomach1099
Robert E. Roses and Daniel T. Dempsey

