
Contents

Part I Perioperative Care

1 Preoperative Assessment and Preparation	3
Ari Y. Weintraub and Lynne G. Maxwell	
2 Prenatal Diagnosis and Genetic Counseling	17
R. Douglas Wilson	
3 Epidural and Regional Anesthesia	25
Harshad G. Gurnaney and Arjunan Ganesh	
4 Enteral Nutrition and Access	29
Daniel P. Doody and Allan M. Goldstein	
5 Parenteral Nutrition	37
Amy Hood and Susan S. Luskin	
6 Enhanced Recovery Protocols.....	45
Peter Mattei	
7 Quality Improvement, Education, and Outcomes Research.....	51
Steven Teich and Marc P. Michalsky	

Part II Critical Care

8 Shock	59
Michael Wilhelm	
9 Electrolyte Abnormalities.....	63
Adam Szadkowski and Michael Wilhelm	
10 Vascular Access	69
Peter Mattei	
11 Acute Kidney Injury	75
Aadil K. Kakajiwal, Michael A. Ferguson, and Julie C. Fitzgerald	
12 Ventilation.....	87
Mohammed Hamzah and Michael Wilhelm	
13 Extracorporeal Life Support.....	93
Christopher S. Muratore	
14 Conjoined Twins.....	103
Gary E. Hartman	

Part III Trauma

15 Trauma Resuscitation	111
Nicholas E. Bruns and Anthony L. DeRoss	
16 Concussion	119
Christopher B. Renjilian and Matthew F. Grady	
17 Acute Head Trauma	129
Gregory G. Heuer, Todd J. Kilbaugh, and Jimmy W. Huh	
18 Neck Injuries	139
John K. Petty	
19 Spine Trauma	147
Taryn M. Bragg and Robert W. Letton Jr.	
20 Burns	153
Brooke Burkey and Gail E. Besner	
21 Abdominal Trauma	169
Christian J. Streck Jr.	
22 Thoracic Trauma	183
Nilda M. Garcia and Erich J. Grethel	
23 Vascular Injury	189
Lucas P. Neff and Todd E. Rasmussen	
24 Hand Injuries	195
Ines C. Lin	
25 Child Abuse	205
Philip V. Scribano and Carla A. Parkin-Joseph	

Part IV Head and Neck

26 The Critical Airway	217
Luke A. Jakubowski and Jeremy D. Meier	
27 Bronchoscopy	225
Luke A. Jakubowski and J. Fredrik Grimmer	
28 Benign Neck Masses	233
Tony L. Kille	
29 Thyroid and Parathyroid Disease	243
Victoria K. Pepper, Christopher Breuer, and Jennifer H. Aldrink	

Part V Esophagus

30 Esophageal Atresia and Tracheoesophageal Fistula	257
Robert Baird and Jean-Martin Laberge	
31 Long-Gap Esophageal Atresia	269
Pietro Bagolan, Andrea Conforti, and Francesco Morini	
32 Managing the Complex Esophagus	283
Edward Hannon, Lewis Spitz, and Paolo De Coppi	
33 Esophageal Injuries and Replacement	291
Inna N. Lobeck and Daniel von Allmen	

34 Foregut Duplication	301
Brian G.A. Dalton and Shawn D. St. Peter	
35 Achalasia	307
J. Duncan Phillips	

Part VI Thorax and Mediastinum

36 Persistent Ductus Arteriosus	315
Petros V. Anagnostopoulos	
37 Vascular Compression Syndromes	321
Mark L. Wulkan	
38 Congenital Lung Lesions	325
Adesola C. Akinkuotu and Oluyinka O. Olutoye	
39 Lung Biopsy and Resection	331
Charles W. Archer Jr. and Daniel J. Ostlie	
40 Diseases of the Pleural Space	341
Charles L. Snyder	
41 Pectus Deformities	351
Allison L. Speer and Timothy D. Kane	
42 Mediastinal Tumors	359
Sidney M. Johnson	

Part VII Stomach and Small Intestine

43 Gastroesophageal Reflux Disease	369
Rebecca L. Gunter and Charles M. Leys	
44 Hypertrophic Pyloric Stenosis	375
Pablo Aguayo	
45 Surgical Enteral Access	381
Tim Weiner and Melissa K. Dedmond	
46 Duodenal Atresia	387
Andrew R. Hong	
47 Intestinal Atresia	395
Daniel L. Lodwick and Peter C. Minneci	
48 Abdominal Cysts and Duplications	401
Patricia A. Lange	
49 Anomalies of Intestinal Rotation	407
E. Marty Knott and Sohail R. Shah	
50 Necrotizing Enterocolitis	413
Michael J. Morowitz	
51 Short Bowel Syndrome	421
David F. Mercer	
52 Meconium Ileus	431
Peter Mattei	

53 Intussusception	437
David B. Tashjian, Michael V. Tirabassi, Katharine R. Bittner, Maria C. Mora, and Kaitlyn E. Wong	
54 Meckel's Diverticulum	443
Joshua D. Rouch and Steven L. Lee	
55 Bariatric Surgery	449
Joy L. Collins	
56 Chronic Abdominal Pain	459
Frazier W. Frantz	
57 Crohn's Disease	473
Peter Mattei	
58 Ileostomy and Colostomy	479
Oliver S. Soldes	
59 Gastrointestinal Bleeding	487
Katherine J. Deans	
60 Enterocutaneous Fistula	493
Jennifer D. Stanger and Andreas H. Meier	
Part VIII Colon, Rectum, and Anus	
61 Constipation and Fecal Incontinence	501
Michael D. Rollins II and Desale Yacob	
62 Hirschsprung Disease	513
Jeffrey R. Avansino and Marc A. Levitt	
63 Perianal Disease.....	525
Bennett W. Calder and Robert A. Cina	
64 Pilonidal Disease.....	531
Brian G.A. Dalton and Shawn D. St. Peter	
65 Appendicitis	537
Feroze Sidhwa, Charity Glass, and Shawn J. Rangel	
66 Ulcerative Colitis and Familial Polyposis	545
Inna N. Lobeck and Jason S. Frischer	
67 Anorectal Malformations	553
Michael D. Rollins II and Marc A. Levitt	
Part IX Abdominal Wall, Peritoneum, and Diaphragm	
68 Gastroschisis.....	569
Saleem Islam	
69 Omphalocele.....	575
Amita A. Desai and Corey W. Iqbal	
70 Eventration of the Diaphragm.....	581
Melvin S. Dassinger III and Lori A. Gurien	
71 Congenital Diaphragmatic Hernia	585
Matthew T. Harting and KuoJen Tsao	

72 Uncommon Hernias	593
Justin Lee and Douglas C. Barnhart	
73 Umbilical Disorders	599
Stephen J. Fenton	
74 Peritoneal Dialysis.....	605
David E. Skarda	
75 Ventricular Shunts for Hydrocephalus	611
Heather S. Spader and Jay Riva-Cambrin	
76 Disorders of the Abdominal Aorta and Major Branches	617
Davis B. Horkan and Omaida C. Velazquez	

Part X Liver, Biliary Tree, Pancreas, and Spleen

77 Neonatal Hyperbilirubinemia	625
Clyde J. Wright and Michael A. Posencheg	
78 Biliary Atresia.....	629
Joseph B. Lillegard, Avery C. Miller, and Alan W. Flake	
79 Congenital Intrahepatic Cholestasis	637
Marie V. Nguyen and Kasper S. Wang	
80 Cholecystitis.....	641
John J. Tackett and Robert A. Cowles	
81 Choledochal Cysts.....	647
Inna N. Lobeck and Gregory M. Tiao	
82 Hepatic Resection.....	653
Jennifer Minneman and Heung Bae Kim	
83 Portal Hypertension.....	659
Caroline Lemoine and Riccardo A. Superina	
84 Congenital Hyperinsulinism	667
N. Scott Adzick and Pablo Laje	
85 Pancreatic Disorders.....	675
Pablo Laje and N. Scott Adzick	
86 Surgical Disorders of the Spleen.....	687
Elisabeth T. Tracy and Henry E. Rice	

Part XI Genitourinary

87 Vesicoureteral Reflux.....	697
Ruthie Su	
88 Renal Abnormalities	701
Paul H. Smith III, John H. Makari, and Fernando Ferrer	
89 Penile Anomalies and Circumcision	711
Eric D. Nelson	
90 Inguinal Hernia and Hydrocele	725
Nicole M. Chandler and Paul D. Danielson	
91 Undescended Testis	733
Francois I. Luks and Anthony A. Caldamone	

92 Acute Scrotum	741
Ruthie Su	
93 Cloacal Exstrophy	745
John M. Gatti and David Juang	
94 Disorders of Sex Development	751
Thomas F. Kolon	
95 Vagina	759
Peter Mattei	

Part XII Surgical Oncology

96 Neuroblastoma	767
Jeremy R. Jackson and Eugene S. Kim	
97 Wilms Tumor	777
Peter F. Ehrlich	
98 Adrenal Tumors	787
Daniel von Allmen	
99 Rhabdomyosarcoma	791
Carlos R. Alvarez-Allende and Roshni Dasgupta	
100 Non-rhabdomyosarcoma Soft-Tissue Sarcoma	797
Andrea Hayes-Jordan	
101 Sacrococcygeal Teratoma	803
William H. Peranteau	
102 Ovarian Tumors	811
Kirk W. Reichard	
103 Testicular Tumors	819
Gregory E. Tasian and Thomas F. Kolon	
104 Liver Tumors	825
Rebecka L. Meyers	
105 Musculoskeletal Tumors	839
Mark A. Seeley and John P. Dormans	

Part XIII Skin and Soft Tissues

106 Benign Skin Lesions	853
Michael D. Rollins II and Sheryll L. Vanderhooft	
107 Nevi and Malignant Melanoma	863
Rebecca L. Farmer and Ahmed M. Afifi	
108 Necrotizing Soft Tissue Infections	871
Angela Gibson	
109 Hemangiomas and Vascular Malformations	879
David W. Low and Oksana A. Jackson	
110 Disorders of the Breast	891
Tiffany Zens and Lee G. Wilke	
Index	899

<http://www.springer.com/978-3-319-27441-6>

Fundamentals of Pediatric Surgery

Second Edition

Mattei, P.; Nichol, P.F.; Rollins, II, M.D.; Muratore, C.S.

(Eds.)

2017, XXV, 935 p. 510 illus., 288 illus. in color.,

Hardcover

ISBN: 978-3-319-27441-6