

Contents

List of Contributors x

Foreword xiv

- 1 **Normal Parameters for Pediatric Anesthesia** 1
Adam C. Adler
- 2 **Pharmacology and Physiology in the Term Neonate** 6
Adam C. Adler and Ronald S. Litman
- 3 **Anesthetic Neurotoxicity in Children** 16
Adam C. Adler and Dean B. Andropoulos
- 4 **Preoperative Anxiety** 19
Rebecca Evans and William D. Ryan
- 5 **Postoperative Nausea and Vomiting in Children** 24
Arvind Chandrakantan
- 6 **Emergence Delirium** 26
Arvind Chandrakantan
- 7 **Anesthesia Care for the Premature Infant** 28
Arvind Chandrakantan and Jamie W. Sinton
- 8 **Monitoring of the Pediatric Patient** 33
Michael R. King
- 9 **Blood and Transfusion** 38
Megha K. Kanjia
- 10 **Asthma** 46
Giuliana Geng-Ramos
- 11 **Sepsis** 50
Matthew Taylor
- 12 **Malignant Hyperthermia** 57
Giselle Torres
- 13 **Cystic Fibrosis** 60
Jamie W. Sinton
- 14 **Muscular Dystrophy** 64
Jamie W. Sinton
- 15 **Spinal Muscular Atrophy** 68
Jamie W. Sinton and William D. Ryan
- 16 **Burns Management** 70
Aysha Hasan, William D. Ryan, and Arvind Chandrakantan
- 17 **Pediatric Trauma** 76
Karla E.K. Wyatt
- 18 **Infant Hernia Repair and Prevention of Postoperative Apnea** 81
William D. Ryan, Adam C. Adler, and Ronald S. Litman
- 19 **Anterior Mediastinal Masses** 86
Adam C. Adler and Sheryl Modlin
- 20 **Esophageal Atresia and Tracheoesophageal Fistula** 92
Adam C. Adler
- 21 **Pyloric Stenosis** 96
Adam C. Adler
- 22 **Congenital Diaphragmatic Hernia** 100
Titilopemi A.O. Aina
- 23 **Thoracic Surgery in Children** 104
Kasia Rubin
- 24 **Abdominal Masses: Neuroblastoma** 108
Yeona Chun and Michael R. King
- 25 **Abdominal Masses: Wilms Tumor** 111
Yeona Chun and Michael R. King
- 26 **Congenital Hyperinsulinism and Pancreatectomy** 113
Maureen E. Scollon-McCarthy
- 27 **Hepatic Portoenterostomy; Kasai Procedure** 118
Rahul G. Baijal and Nihar V. Patel

28	Liver Transplantation	122	46	Midgestational Fetal Procedures: Prenatal Repair of an Open Neural Tube Defect	197
	Rahul G. Baijal and Nihar V. Patel			Mario Patino and Arvind Chandrakantan	
29	Renal Transplantation	128	47	Scoliosis Surgery	202
	Miguel R. Prada			Adam C. Adler and Howard Teng	
30	Myringotomy and Ear Tube Placement/Upper Respiratory Infection	134	48	Pectus Excavatum: The Nuss Procedure	208
	Rebecca Evans and William D. Ryan			Adam C. Adler	
31	Adenotonsillectomy	137	49	Vertical Expandable Prosthetic Titanium Rib Insertion	211
	Rebecca Evans			Paulus Steyn	
32	Tracheobronchial Foreign Body	141	50	Pediatric Epidural Anesthesia	214
	Maura Berkelhamer and Kasia Rubin			Adam C. Adler	
33	Laryngotracheal Reconstruction Surgery	144	51	Upper Extremity Nerve Blocks	216
	Lisa D. Heyden and Deepak K. Mehta			Arvind Chandrakantan and Nihar V. Patel	
34	Thyroid Surgery	149	52	Lower Extremity Nerve Blocks	225
	Adam C. Adler			Nihar V. Patel	
35	Myelomeningocele and Hydrocephalus	152	53	Truncal Blocks	236
	Adam C. Adler			Monica Chen	
36	Pediatric Neurological Tumors	157	54	Local Anesthetic Systemic Toxicity (LAST)	246
	Arvind Chandrakantan			Arvind Chandrakantan and Aysha Hasan	
37	Epilepsy Surgery	161	55	Acute Postoperative Pain Management	249
	Matthew D. James and Adam C. Adler			Zoel A. Quiñónez and Jamie W. Sinton	
38	Moyamoya Disease	164	56	Chronic Pediatric Pain	254
	Elyse C. Parchmont and Adam C. Adler			Caro Monico	
39	Cleft Lip and Palate	169	57	Distraction Techniques for Pediatric Pain Management	260
	Julia H. Chen and Sudha Bidani			Grace S. Kao and Emily R. Schwartz	
40	Craniosynostosis	173	58	Transitional Circulation	264
	Rebecca Evans and Grace Hsu			Eric L. Vu and Zoel A. Quiñónez	
41	Anesthesia for Dental Procedures	178	59	Patent Ductus Arteriosus	269
	Esther Y. Yang and Arvind Chandrakantan			Adam C. Adler	
42	Strabismus Surgery	180	60	Coarctation of the Aorta	273
	Chris D. Glover and Christian Balabanoff-Acosta			Adam C. Adler	
43	Anesthesia for Penile Procedures	184	61	Atrial Septal Defects	277
	Kathleen Chen, Ann Ng, Kayla McGrath, and Donald A. Schwartz			Adam C. Adler	
44	Bladder Exstrophy	189	62	Ventricular Septal Defects	282
	Kim-Phuong Nguyen			Adam C. Adler	
45	Anesthesia for Ex Utero Intrapartum Therapy (EXIT)	193			
	Vibha Mahendra and Caitlin D. Sutton				

- 63 **Anesthesia for Cardiac Catheterization** 286
Jamie W. Sinton
- 64 **Tetralogy of Fallot** 290
Kriti Puri and Adam C. Adler
- 65 **Transposition of the Great Arteries** 296
Devyani Chowdhury and Ramesh Kodavatiganti
- 66 **Anomalous Pulmonary Venous Return** 302
Jamie W. Sinton
-
- 67 **Truncus Arteriosus** 306
Devyani Chowdhury and Ramesh Kodavatiganti
- 68 **Pulmonary Hypertension in Children** 310
Yang Liu
- 69 **The Fontan Patient** 315
Premal M. Trivedi
- 70 **Ventricular Assist Devices** 320
Premal M. Trivedi
- 71 **Noncardiac Surgery in a Glenn Patient** 328
Jaime Bozentka and Laura Diaz-Berenstain

Index 334