Contents

List of Contributors, vii
Foreword, xi
Preface, xii
Acknowledgements, xiii

Part I The Evolution of Basic Principles and Practice
1 Training in Endoscopy: A Historical Background, 3
   Jonathan Cohen & David A. Greenwald
2 How Endoscopy is Learned: Deconstructing Skill Sets, 16
   Gerald M. Fried & Kevin A. Waschke
3 Training to Become a High-Quality Endoscopist: Mastering the Nonprocedural Aspects, 22
   Sahar Ghassemi & Douglas O. Faigel

Part II Training in the Major Endoscopic Procedures
4 Esophagogastroduodenoscopy (EGD), 31
   Lauren B. Gerson & Shai Friedland
5 Colonoscopy, 42
   Robert E. Sedlack
6 Endoscopic Ultrasound, 73
   Thomas J. Savides & Frank G. Gress
7 ERCP, 85
   Joseph Leung & Brian S. Lim
8 Capsule Endoscopy, 97
   Felice Schnoll-Sussman & David E. Fleischer
9 Deep Enteroscopy, 109
   Patrick I. Okolo & Jonathan M. Buscaglia
10 Cholecystoscopy and Pancreatoscopy, 116
   Jeffrey H. Lee & Peter Kelsey
11 Principles of Electrosurgery, 125
   David L. Carr-Locke & John Day
12 The Use of Fluoroscopy for Gastrointestinal Endoscopy, 135
   Douglas G. Adler
13 Pediatric Endoscopy, 143
   Michael A. Manfredi & Jennifer R. Lightdale

Part III Training in Specific Techniques
14 Contrast-Enhanced Endoscopy—Chromo and Optical Contrast Techniques, 159
   Anna M. Buchner, Prateek Sharma, & Michael B. Wallace
## Contents

15 GI Hemostasis, 170  
Brian J. Dunkin, Kai Matthes, & Dennis M. Jensen

16 Luminal Dilation Techniques (Structures, Achalasia, Anastomotic, IBD), 188  
Syed M. Abbas Fehmi & Michael L. Kochman

17 Foreign Body Extraction, 197  
Gregory A. Coté, Steven A. Edmundowicz, & Sreenivasa S. Jonnalagadda

18 Endoscopic Mucosal Resection and Endoscopic Submucosal Dissection, 204  
Juergen Hochberger, Elena Kriwa, Detlev Menke, Edris Wedi, SangSa Dammer, Peter Koehler, & Karl-Friedrich Baierig

19 Mucosal Ablation Techniques, 237  
John A. Dumot, Bruce D. Greenwald, & Vinnyd K. Sharma

20 Complicated Polypectomy, 246  
Jerome D. Waye & Yasushi Sano

21 Natural Orifice Translumenal Endoscopic Surgery (NOTES®), 261  
Kai Matthes, Mark A. Grumski, & Robert Hawes

22 Bariatric Endoscopy, 270  
Sohail N. Shakil, Marvin Ryu, & Christopher C. Thompson

23 Repair of Mucosal Defects: A Primer on Endoscopic Closure of Gastrointestinal Perforations, 282  
Gottumukkla S. Raju

24 Esophageal, Gastroduodenal and Colorectal Stenting, 288  
Peter D. Siersema

25 ERCP Management of Complicated Stone Disease of the Bile Duct and Pancreas, 300  
Nithin Karanth, Jonathan Cohen, & Gregory B. Haber

26 ERCP Management of Malignancy: Tissue Sampling, Metal Stent Placement and Ampullectomy, 313  
Douglas A. Howell

27 Sphincter of Oddi Manometry, 324  
Ivan L. Fogel, Stuart Sherman, & Glen A. Lehman

28 Pseudocyst Management, 332  
Michael J. Levy & Todd H. Baron

29 Enteral Access Techniques: Percutaneous Endoscopic Gastrostomy and Jejunostomy, 341  
James A. DiSario

30 The Endoscopic Management of Immediate Complications of Therapeutic Endoscopy, 351  
David A. Greenwald & Martin L. Freeman

### Part IV Challenges for the Future

31 Assessing Manpower Needs in Gastroenterology and Digestive Endoscopy: Lessons from the Past and Implications for the Future of Endoscopic Training, 359  
Girish Mishra & Alan Balkun

32 Providing Resources and Opportunities for Retraining for Practicing Endoscopists, 367  
John L. Petrini

33 Evolving Role of GI Societies and Industry in Training Endoscopists to Perform New Techniques: Supporting the Process and Setting the Standards, 372  
John A. Martin & Christopher J. Gostout

34 The Importance of Skills Assessment and Recording Personal Outcomes in the Future of Training, 380  
Peter B. Cotton & Roland M. Valori

Index, 385