

Contents

Section Editors vii

Contributors ix

Preface xxiii

1 Disease Prevention and Health Promotion 1

Section Editor: Jim Medder

- 1.1 **Health Maintenance Overview 1**
Paul E. Lyons
- 1.2 **Health Maintenance for Infants and Children 5**
Mindy J. Lacey
- 1.3 **Health Maintenance for Adolescents 11**
Avery L. Sides
- 1.4 **Health Maintenance for the Adult Patient 17**
Paul E. Lyons
- 1.5 **Health Maintenance for Older Adults 21**
James P. Richardson
- 1.6 **Health Care for the International Traveler 27**
Douglas P. Collins, Christine O'Dea,
Kevin P. Brazill, Beth-Erin S. Smith, Nancy C. Elder

2 Common Presenting Problems 36

Section Editor: Gretchen M. Dickson

- 2.1 **Weight Loss 36**
Samuel N. Grief
- 2.2 **Fatigue 40**
Janet C. Lindemann
- 2.3 **Dizziness 42**
Jennifer Wipperman
- 2.4 **Cough 44**
Stephanie Eve Owen McCullough, Justin M. Bailey
- 2.5 **Chest Pain 48**
Douglas Lewis
- 2.6 **Abdominal Pain 53**
Laura C. Mayans
- 2.7 **Jaundice 57**
Glenn D. Miller, Marc D. Carrigan
- 2.8 **Edema 61**
Gretchen M. Dickson, Charles W. Coffey
- 2.9 **Pelvic Pain 64**
Tessa Rohrberg, Gretchen M. Dickson
- 2.10 **Back Pain 70**
Natasha N. Desai, Rahul Kapur

3 Emergency Problems in Ambulatory Care 74

Section Editor: William Henry Hay

- 3.1 **Anaphylaxis 74**
Mark D. Goodwin
- 3.2 **Bronchospasm 79**
Kristen Hood Watson
- 3.3 **Drug Overdose 84**
Payam Sazegar

- 3.4 **Epistaxis** 90
Jennifer L. Bepko, Pamela M. Williams, Stephen Horras,
Nicholas Longstreet, Gabriel Briscoe, Chelsey Villaneuva
- 3.5 **Syncope** 93
Carole V. Nistler
- 3.6 **Cerebral Concussions** 96
Kim Edward LeBlanc
- 3.7 **Fractures Requiring Special Consideration** 98
Alexei DeCastro, Brett Wilhoit
- 3.8 **Delirium** 110
Rebecca Wester

4**Problems of Infants and Children 116**

Section Editor: Scott E. Moser

- 4.1 **Developmental Problems in Children** 116
Dennis J. Baumgardner
- 4.2 **Fever in Infancy and Childhood** 122
Peter H. Forman
- 4.3 **Inspiratory Stridor, Croup, and Epiglottitis** 126
Neil S. Skolnik, Megan C. Madsen
- 4.4 **Reactive Airway Disease in Children** 129
Dawn Brink-Cymerman
- 4.5 **Viral Exanthems of Children** 132
Jeffrey T. Kirchner
- 4.6 **Common Musculoskeletal Problems of Children and Adolescents** 135
John R. Gimpel
- 4.7 **Enuresis** 147
William L. Toffler
- 4.8 **Common Poisoning in Children** 149
Jason Chao, Alexandria D. Howard
- 4.9 **Behavioral Problems of Children** 154
Keely J. Beam
- 4.10 **Attention-Deficit/Hyperactivity Disorder** 157
Deborah S. Clements

5**Human Behavior and Problems of Living 161**

Section Editor: Jessica B. Koran-Scholl

- 5.1 **Anxiety Disorders** 161
Michael L. Brown, Rachel Bramson
- 5.2 **Depression** 167
Prasad R. Padala, Kalpana P. Padala
- 5.3 **Alcoholism** 173
Robert Mallin, Brandon D. Brown
- 5.4 **Sexual Dysfunction** 178
Jared D. Beck
- 5.5 **Eating Disorders** 183
Cynthia G. Olsen, Matthew O'Neill
- 5.6 **Sleep-Wake Disorders** 186
Joshua J. Sygal, Jessica B. Koran-Scholl
- 5.7 **Drug Misuse Disorders** 194
Lisa Grill Dodson

6**Disorders of the Nervous System 197**

Section Editor: Toby D. Free

- 6.1 **Migraine Headaches** 197
Anne D. Walling

- 6.2 Nonmigraine Headaches 204**
Diego R. Torres-Russotto
- 6.3 Meningitis 209**
Najib I. Murr
- 6.4 Seizures 212**
Najib I. Murr
- 6.5 Transient Ischemic Attack 216**
Sarah Parrott
- 6.6 Stroke and Transient Ischemic Attack 218**
Pierre Fayad, Najib I. Murr, Diego R. Torres-Russotto
- 6.7 Movement Disorders 226**
Danish E. Bhatti, Diego R. Torres-Russotto
- 6.8 Alzheimer's Disease 230**
Kalpana P. Padala, Prasad R. Padala
- 6.9 Peripheral Neuropathy 234**
J. Americo M. Fernandes Filho

7 Eye Problems 239

Section Editor: Shou Ling Leong

- 7.1 Conjunctivitis and Other Causes of a Red Eye 239**
Sean M. Oser, Syed M. Atif, Tamara K. Oser
- 7.2 Age-Associated Eye Diseases: Cataracts, Glaucoma, and Macular Degeneration 243**
F. Samuel Faber, Anthony M. Cheng, David Richard
- 7.3 Ocular Emergencies 251**
Ahad Shiraz, Timothy D. Riley

8 Ear, Nose, and Throat Problems 255

Section Editor: Jason M. Patera

- 8.1 Acute Otitis Media 255**
Carey Christiansen Ford
- 8.2 Chronic Otitis Media 258**
Russell G. Maier
- 8.3 Otitis Externa 261**
Paul Evans
- 8.4 Pharyngitis 263**
John L. Smith
- 8.5 Sinusitis 266**
John L. Smith
- 8.6 Allergic Rhinitis 269**
Denise K.C. Sur
- 8.7 Head and Neck Malignancies 272**
Jason M. Patera

9 Cardiovascular Problems 275

Section Editor: Douglas J. Inciarte

- 9.1 Hypertension 275**
Oscar O. Perez Jr, Michael R. King
- 9.2 Ischemic Heart Disease 283**
Douglas J. Inciarte
- 9.3 Murmurs and Valvular Heart Disease 290**
Douglas J. Inciarte
- 9.4 Heart Failure 296**
Jenny Papazian, Denise Barnard

- 9.5 **Atrial Fibrillation and Other Supraventricular Tachycardias** 310
Yaowen Eliot Hu, Thomas M. Howard
- 9.6 **Ventricular Dysrhythmias** 318
Julie Jeter, Daniel E. Brewer
- 9.7 **Venous Thrombosis and Thrombophlebitis** 325
Mitchell S. King, Linda F. Chang
- 9.8 **Peripheral Arterial Disease** 331
Ferdinando Andrade

10

Respiratory Problems 336

Section Editor: David Harnisch Sr.

- 10.1 **Asthma** 336
Elisabeth L. Backer
- 10.2 **Acute Bronchitis and Pneumonia** 339
William J. Hueston
- 10.3 **Chronic Obstructive Pulmonary Disease** 342
Kevin J. Berg, Joshua J. Raymond
- 10.4 **Tuberculosis** 346
Michelle Anne Bholat, Patrick T. Dowling
- 10.5 **Lung Cancer** 352
Daniel G. Hunter-Smith, James E. Hannigan

11

Gastrointestinal Problems 355

Section Editor: Michael A. Malone

- 11.1 **Peptic Ulcer Disease and Gastritis** 355
Stephanie A. Gill, Jay Zimmermann, Alan M. Adelman
- 11.2 **Gastroesophageal Reflux Disease** 358
Sumaira Iqbal, George G.A. Pujalte
- 11.3 **Upper Gastrointestinal Bleeding** 360
Mel P. Daly
- 11.4 **Cholelithiasis and Cholecystitis** 364
Cayce Onks, Eric M. Pauli
- 11.5 **Viral Hepatitis** 375
Jarrett K. Sell, Abraham R. Taylor
- 11.6 **Pancreatitis and Pancreatic Cancer** 384
Abdul Waheed, Cynthia Rizk, Lena Jafilan
- 11.7 **Diverticular Disease** 392
Sean M. Oser, Parminder Nizran, Anne Walsh, Tamara K. Oser
- 11.8 **Irritable Bowel Syndrome** 395
L. Peter Schwiebert
- 11.9 **Inflammatory Bowel Disease** 398
Michael A. Malone, Charis James, Neha Kaushik
- 11.10 **Anorectal Disease and Hemorrhoids** 405
Munima Nasir, Nadine S. Hewamudalige, Paul A. Botros
- 11.11 **Colorectal Cancer** 417
Eugene Orientale Jr., Nasser Mohamed, Colton R. Redding

12

Renal and Urologic Problems 421

Section Editor: Shawn P. Murdock

- 12.1 **Cystitis and Bacteriuria** 421
Bridgette Pudwill
- 12.2 **Hematuria** 424
Anthony J. Strickland
- 12.3 **Pyelonephritis** 429
Ayesha F. Chaudry

- 12.4 Epididymitis and Prostatitis 433**
Emily J. Jones, Hina Anjum
- 12.5 Benign Prostatic Hyperplasia 437**
Kathryn Helena Filutowski
- 12.6 Prostate Cancer 442**
Svetlana Moore
- 12.7 Chronic Kidney Disease 447**
Jitendrakumar D. Sodvadiya, Kimberly J. Jarzynka
- 12.8 Urolithiasis 454**
Nathan J. Timmer
- 12.9 Urinary Incontinence 456**
Robert Daro
- 12.10 Acute Kidney Injury 459**
Dustin C. Carpenter, Shri Lalitha Rayavarapu

13 Problems Related to the Female Reproductive System 465

Section Editor: Amber M. Tyler

- 13.1 Vaginitis and Cervicitis 465**
Heather L. Paladine, Urmi A. Desai
- 13.2 Dysmenorrhea and Premenstrual Syndrome 471**
Elizabeth K. Dayton
- 13.3 Abnormal Genital Bleeding in Women and Girls 474**
Angela M. Riegel
- 13.4 Pap Smear Evaluation for Cervical Cancer 479**
Dena M. Jundt
- 13.5 Pelvic Inflammatory Disease 481**
Martin A. Quan
- 13.6 Menopause 485**
Alisha E. O'Malley
- 13.7 Benign Breast Conditions and Disease 489**
Brian P. Jundt
- 13.8 Breast Cancer 498**
Birgit Khandalavala
- 13.9 Colposcopy 502**
Jennifer G. Chang

14 Family Planning and Maternity Care 506

Section Editor: Ashley J. Falk

- 14.1 Contraception 506**
Carey Christiansen Ford
- 14.2 Infertility 511**
Hilary B. Miller
- 14.3 Genetic Disorders and Pregnancy 515**
Lei Yu, Ashley J. Falk
- 14.4 Prenatal Care 520**
Irina Rozin
- 14.5 Ectopic Pregnancy 527**
Elizabeth S. Pietralczyk
- 14.6 Medical Problems During Pregnancy 529**
Ashley J. Falk
- 14.7 Postdate Pregnancy 534**
Sean P. Wherry
- 14.8 Obstetric Problems During Pregnancy 536**
S. Lindsey Clarke, James W. Jarvis, Daphne J. Karel

- 14.9 Intrapartum Care 544**
Lyrad K. Riley
- 14.10 Complications During Labor and Delivery 547**
Kevin C. Sisk
- 14.11 Postpartum Care 556**
Katrina N. Wherry
- 14.12 Diagnostic Ultrasound in Obstetrics 560**
Zackary J. Kent
- 14.13 Pregnancy Loss and Stillbirth 564**
Ryan Frank

15 Musculoskeletal Problems and Arthritis 568

Section Editor: Christopher W. Bunt

- 15.1 Osteoarthritis 568**
John R. Gimpel
- 15.2 Rheumatoid Arthritis and Related Disorders 571**
John J. Olshefski
- 15.3 Fibromyalgia 579**
Jimmy H. Hara
- 15.4 Gout 580**
Kristen H. Goodell, Joseph W. Gravel Jr
- 15.5 Overuse Injuries 585**
Matthew C. Schaffer, Ted C. Schaffer
- 15.6 Arthrocentesis and Joint and Soft-Tissue Injections 594**
Michael J. Henahan, Amy White Hockenbrock

16 Dermatologic Problems 600

Section Editor: Elisabeth L. Backer

- 16.1 Pyoderma and Cellulitis 600**
Michael L. O'Dell
- 16.2 Fungal Infections of the Skin 602**
Lars C. Larsen, Valerie B. Laing, Jonathon M. Firnhaber
- 16.3 Pediculosis and Mite Infestations 605**
Jeffrey G. Jones
- 16.4 Acne Vulgaris 607**
Daniel J. Van Durme, Lisa M. Johnson
- 16.5 Common Dermatoses 610**
Rhonda A. Sparks, Kalyanakrishnan Ramakrishnan, Brian R. Coleman
- 16.6 Urticaria 622**
William A. Alto, Louis Paul Gianutsos
- 16.7 Stasis Dermatitis, Venous (Stasis) Ulcers, and Pressure Ulcers 625**
Ryan C. Petering
- 16.8 Common Skin Cancers 628**
Stephanie T. Carter-Henry, Jeremy Golding

17 Endocrine and Metabolic Disorders 636

Section Editor: Kathryn K. Garner

- 17.1 Obesity 636**
Matthew Barnes
- 17.2 Diabetes Mellitus 645**
John P. Sheehan, Margaret M. Ulchaker, Charles Kent Smith
- 17.3 Thyroid Disorders 663**
Kelly Gray Koren
- 17.4 Dyslipidemias 669**
Marvin Moe Bell

- 17.5 Hypercalcemia 672**
Dawn M. Sloan
- 17.6 Osteoporosis 674**
Fred E. Heidrich, Susan M. Ott

18**Disorders of the Blood 680**

Section Editor: Jonathan Bassett

- 18.1 Iron-Deficiency Anemia 680**
Josephine K. Olsen
- 18.2 Megaloblastic Anemia 682**
Sarah M. Balloga
- 18.3 Bleeding Disorders 684**
Matthew G. Balderston
- 18.4 The Leukemias 690**
Philip T. Dooley, Kevin L. Gray

19**Infectious Diseases 693**

Section Editor: Laeth Nasir

- 19.1 Viral Upper Respiratory Infections, Influenza, and Flu 693**
Stella C. Major
- 19.2 Gastroenteritis 698**
Charles E. Henley
- 19.3 Epstein-Barr Virus Infections 700**
Arwa Nasir
- 19.4 Human Immunodeficiency Virus Infections and the Acquired Immunodeficiency Syndrome 702**
Paul E. Lyons
- 19.5 Syphilis 707**
Mark Duane Goodman
- 19.6 Gonorrhea 711**
Amy E. Lacroix
- 19.7 Chlamydia Infection 713**
Kent Jian Zhao
- 19.8 Herpes Virus Infections 717**
Sanjeev K. Sharma
- 19.9 Lyme Disease 722**
Jennifer Parker
- 19.10 Rocky Mountain Spotted Fever 724**
Ashley J. Falk, Nathan P. Falk
- 19.11 Parasitic Diseases 726**
Matthew R. Anderson, Manel Silva

20**Injuries and Violence 732**

Section Editor: Courtney Ann Dawley

- 20.1 Bites of Humans and Animals 732**
Richard W. Pretorius
- 20.2 Burns 737**
Chantell R. Hemsley
- 20.3 Smoke Inhalation and Carbon Monoxide Poisoning 741**
Richard W. Pretorius
- 20.4 Intimate Partner Violence 744**
Jessica-Renee Gamboa
- 20.5 Child Maltreatment 747**
Sara Shelton Kerley

20.6 Evaluation and Management Sexual Assault Victim 751

Michael Ryan Odum

20.7 Acute Musculoskeletal Injury 756

Rebecca L. Peebles, Sabrina L. Silver

21 Occupational and Environmental Problems 767

Section Editor: Timothy J. Coker

21.1 Disability Determination 767

Timothy J. Coker

21.2 Pesticide and Related Poisoning 769

Scott W. Hughes

21.3 Occupational Lung Diseases 772

Brian N. Julich

21.4 Heat-Related Illnesses 781

Richard E. Gray

22 Therapeutic Choices 784

Section Editor: Rick Kellerman

22.1 Bacterial Endocarditis Prophylaxis 784

Bruce M. Bushwick

22.2 Medication Use During Pregnancy 786

Jacinta S. Cauffield, Marilyn S. Darr

22.3 Herbal Medicine 791

Mari A. Ricker, David K. Solondz

22.4 Management of Acute and Chronic Nonmalignant Pain 797

Amy E. Curry

22.5 End-of-Life Care 802

James J. Helmer Jr., Marc Tunzi, Wendell M. Harry

INDEX 811