

Table of Contents



Preface xi

Authors xiii

1. General Approach to the Patient; Health Maintenance and Disease Prevention; & Common Symptoms 1

Stephen J. McPhee, MD, & Steven A. Schroeder, MD

General Approach to the Patient 1
Health Maintenance & Disease Prevention 2
 Infectious Diseases 3
 Cardiovascular and Cerebrovascular Diseases 4
 Physical Inactivity & Sedentary Lifestyle 7
 Cancer 8
 Accidents & Violence 9

Health Maintenance & Disease Prevention (cont'd)
 Substance Abuse 10
 Common Symptoms 10
 Pain 10
 Fever & Hyperthermia 14
 Weight Loss 16
 Fatigue 17

2. Diagnostic Testing & Medical Decision Making 19

William M. Detmer, MD, & Diana Nicoll, MD, PhD

Benefits, Costs and Risks 19
Performance of Diagnostic Tests 19
Test Characteristics 20

Use of Tests in Diagnosis & Management 22
Odds-Likelihood Ratios 23

3. Geriatric Medicine 30

Neil M. Resnick, MD

General Principles of Geriatric Medicine 30
History Taking With Elderly Patients 32
Physical Examination 33
Mental Status Examination 35
Evaluation of Functional Capacity in the Elderly 35
Laboratory Examinations & Imaging 36
The Frail Elderly & the Five I's 36
 Intellectual Impairment 37

The Frail Elderly & the Five I's (cont'd)
 Immobility (Chair- or Bed-Bound) 40
 Instability (Physical Instability, Falls, Unstable Gait) 41
 Urinary Incontinence 43
 "Iatrogenic" Drug Reactions 46
Summary 47

4. Cancer 50

Hope S. Rugo, MD

Incidence & Etiology 50
Prevention of Cancer 51
Staging of Cancer 55
Primary Cancer Treatment 55
Surgery & Radiation Therapy 55
Systemic Cancer Therapy 56
Adjuvant Chemotherapy for Micrometastases 64
Toxicity & Dose Modification of Chemotherapeutic Agents 65

Evaluation of Tumor Response 70
Tumor Size 70
Tumor Markers 70
General Well-Being & Performance Status 71
Cancer Complications: Diagnosis & Management 72
Oncologic Emergencies 72
Other Complications 75
The Paraneoplastic Syndromes 78

5. Skin & Appendages	80
<i>Sanford M. Goldstein, MD, & Richard B. Odom, MD</i>	
Diagnosis of Skin Disorders 80	Common Dermatoses (cont'd)
Principles of Dermatologic Therapy 80	Violaceous to Purple Papules & Nodules 124
Common Dermatoses 82	Pruritus (Itching) 125
Pigmented Lesions 82	Inflammatory Nodules 130
Scaling Disorders 85	Photodermatitis 132
Vesicular Dermatoses 100	Ulcers 133
Weeping or Encrusted Lesions 105	Miscellaneous Dermatologic Disorders 135
Pustular Disorders 107	Pigmentary Disorders 135
Figurate Erythemas 114	Baldness (Alopecia) 137
Blistering Diseases 118	Nail Disorders 138
Papules 120	Dermatitis Medicamentosa 142
6. Eye	144
<i>Paul Riordan-Eva, FRCS, FCOphth, & Daniel G. Vaughan, MD</i>	
Symptoms of Ocular Disease 144	Central & Branch Retinal Artery Occlusions 158
Ocular Examination 145	Amaurosis Fugax 159
Ophthalmologic Referrals 147	Retinal Disorders Associated With Systemic Diseases 159
Refractive Errors 147	Anterior Ischemic Optic Neuropathy 161
Disorders of the Lids & Lacrimal Apparatus 148	Optic Neuritis 161
Conjunctivitis 149	Optic Disk Swelling 162
Pinguecula & Pterygium 151	Ocular Motor Palsies 163
Corneal Ulcer 151	Dysthyroid Eye Disease 163
Acute (Angle-Closure) Glaucoma 153	Orbital Cellulitis 164
Open-Angle Glaucoma 153	Ocular Trauma 164
Uveitis 154	Principles of Treatment of Ocular Infections 165
Cataract 155	Techniques Used in the Management of Ocular Disorders 166
Retinal Detachment 156	Precautions in Management of Ocular Disorders 166
Vitreous Hemorrhage 157	Adverse Ocular Effects of Systemic Drugs 168
Age-Related Macular Degeneration 157	
Central & Branch Retinal Vein Occlusions 158	
7. Ear, Nose, & Throat	169
<i>Robert K. Jackler, MD, & Michael J. Kaplan, MD</i>	
Diseases of the Ear 169	Tracheostomy & Cricothyrotomy 197
Diseases of the Nose & Paranasal Sinuses 182	Foreign Bodies in the Upper Aerodigestive Tract 198
Diseases of the Oral Cavity & Pharynx 189	Diseases Presenting as Neck Masses 199
Diseases of the Salivary Glands 194	Otolaryngologic Manifestations of HIV Infection 200
Diseases of the Larynx 195	
8. Lung	203
<i>John L. Stauffer, MD</i>	
Diagnostic Methods 203	Disorders of the Pulmonary Circulation 252
Disorders of the Airways 208	Disorders Due to Chemical & Physical Agents 260
Pleuropulmonary Infections 225	Disorders of Ventilation 267
Neoplastic & Related Disease 240	Acute Respiratory Failure 269
Interstitial Lung Diseases 247	Acute Respiratory Distress Syndrome (ARDS) 271
Miscellaneous Infiltrative Lung Diseases 250	Pleural Diseases 273
9. Heart	281
<i>Barry M. Massie, MD</i>	
Symptoms & Signs; Diagnostic Procedures 281	Coronary Heart Disease 306
Congenital Heart Disease 288	Disturbances of Rate & Rhythm 330
Valvular Heart Disease 292	Conduction Disturbances 342
Infective Endocarditis 303	

Evaluation of Syncope & Survivors of Sudden Death 345	Diseases of the Pericardium 364	
Cardiac Failure 347	Pulmonary Hypertension & Heart Disease 367	
Myocarditis & the Cardiomyopathies 357	Neoplastic Diseases of the Heart 368	
Acute Rheumatic Fever & Rheumatic Heart Disease 362	The Cardiac Patient & Surgery 369	
	The Cardiac Patient & Pregnancy 370	
10. Systemic Hypertension		373
	<i>Barry M. Massie, MD</i>	
Management of Hypertension 373	Hypertensive Urgencies & Emergencies 388	
11. Blood Vessels & Lymphatics		391
	<i>Lawrence M. Tierney, Jr., MD</i>	
Diseases of the Aorta 391	Venous Diseases 409	
Atherosclerotic Occlusive Disease 396	Diseases of the Lymphatic Channels 416	
Vasomotor Disorders 406	Hypotension & Shock 418	
12. Blood		423
	<i>Charles A. Linker, MD</i>	
Anemias 423	Lymphomas 452	
Neutropenia 441	Disorder of Hemostasis 457	
Leukemias & Other Myeloproliferative Disorders 442	Hypercoagulable States 470	
	Blood Transfusions 472	
13. Alimentary Tract		476
	<i>Kenneth R. McQuaid, MD</i>	
Symptoms & Signs of Gastrointestinal Disease 476	Diseases of the Small Intestine 523	
Diseases of the Peritoneum 494	Diseases of the Colon & Rectum 531	
Diseases of the Esophagus 496	Anorectal Diseases 551	
Diseases of the Stomach & Duodenum 509		
14. Liver, Biliary Tract, & Pancreas		555
	<i>Lawrence S. Friedman, MD</i>	
Jaundice (Icterus) 555	Diseases of the Biliary Tract 579	
Diseases of the Liver 557	Diseases of the Pancreas 586	
15. Breast		593
	<i>Armando E. Giuliano, MD</i>	
Carcinoma of the Female Breast 593	Other Breast Disorders (cont'd)	
Carcinoma of the Male Breast 612	Nipple discharge 615	
Other Breast Disorders 613	Fat Necrosis 615	
Mammary Dysplasia 613	Breast Abscess 616	
Fibroadenoma of the Breast 614	Disorders of the Augmented Breast 616	
16. Gynecology & Obstetrics		617
	<i>H. Trent MacKay, MD, & Arthur T. Evans, MD</i>	
Gynecology 617	Gynecology (cont'd)	
Abnormal Premenopausal Bleeding 617	Cervicitis 622	
Postmenopausal Vaginal Bleeding 618	Cyst & Abscess of Bartholin's Gland 622	
Premenstrual Syndrome 619	Effects of Exposure to DES in Utero 622	
Dysmenorrhea 620	Cervical Intraepithelial Neoplasia 623	
Vaginitis 620	Carcinoma of the Uterine Cervix 624	

Gynecology (cont'd)

Carcinoma of the Endometrium 626

Cervical Polyps 626

Myoma of the Uterus 626

Carcinoma of the Vulva 628

Endometriosis 628

Vaginal Hernias 629

Uterine Prolapse 630

Pelvic Inflammatory Disease 630

Ovarian Tumors 631

Persistent Anovulation 634

Urinary Incontinence 635

Painful Intercourse 635

Infertility 636

Contraception 639

Rape 645

Menopausal Syndrome 647

Obstetrics 649

Diagnosis & Differential Diagnosis of
Pregnancy 649

Essentials of Prenatal Care 649

Obstetrics (cont'd)

Nutrition in Pregnancy 651

Travel During Pregnancy 652

Vomiting of Pregnancy & Hyperemesis

Gravidarum 652

Spontaneous Abortion 652

Recurrent (Habitual) Abortion 653

Ectopic Pregnancy 654

Pregnancy-Induced Hypertension (Preeclampsia-
Eclampsia) 655

Gestational Trophoblastic Neoplasia (Hydatidiform
Mole & Choriocarcinoma) 658

Third-Trimester Bleeding 659

Medical Conditions Complicating Pregnancy 659

Surgical Complications During Pregnancy 664

Prevention of Hemolytic Disease of the Newborn
(Erythroblastosis Fetalis) 665

Prevention of Preterm (Premature) Labor 665

Lactation 666

Puerperal Mastitis 668

17. Allergic & Immunologic Disorders 669

Daniel C. Adelman, MD, & Abba Terr, MD

Immunoglobulins & Antibodies 669

Cellular Immunity 673

Immunologic Deficiency Diseases 676

Autoimmunity 678

Immunogenetics & Transplantation 681

Allergic Diseases 685

18. Arthritis & Musculoskeletal Disorders 694

David B. Hellmann, MD

Diagnosis & Evaluation 694

General Principles in Management of Patients With
Chronic Arthritis 695

Degenerative & Crystal-Induced Arthritis 697

Pain Syndromes 703

Autoimmune Diseases 711

Vasculitis Syndromes 724

Seronegative Spondyloarthropathies 729

Infectious Arthritis 732

Infections of Bones 735

Tumors & Tumor-Like Lesions of Bone 738

Other Rheumatic Disorders 739

Some Orthopedic Procedures for Arthritic Joints 740

19. Fluid & Electrolyte Disorders 742

Maxine A. Papadakis, MD

Diagnosis of Fluid & Electrolyte Disorders 742

Treatment of Specific Fluid, Electrolyte, & Acid
Base Disorders 743

Disorders of Sodium Concentration 743

Disorders of Potassium Concentration 748

Disorders of Calcium Concentration 751

Treatment of Specific Disorders (cont'd)

Disorders of Phosphorus Concentration 753

Disorders of Magnesium Concentration 755

Hyperosmolar Disorders & Osmolar Gaps 756

Acid-Base Disorders 757

Fluid Management 767

20. Kidney 768

Gail Morrison, MD

Approach to the Patient With Suspected Renal
Disease 768

Specific Renal Disorders 770

Acute Renal Failure 770

Chronic Renal Failure 773

Cystic Diseases of the Kidney 778

Specific Renal Disorders (cont'd)

Medullary Sponge Kidney 779

Tubulointerstitial Nephritis 780

Glomerulonephritis Presenting With Nephritic
Manifestations 783

Nephrotic Syndrome 786

Multisystem Diseases With Variable Kidney Involvement 789

Wegener's Granulomatosis, Polyarteritis
Nodosa, & Antineutrophil Cytoplasmic
Autoantibodies 789

Multisystem Diseases With Variable Kidney Involvement (cont'd)

Systemic Lupus Erythematosus 789
Diabetic Nephropathy 790
Dysproteinemias 790

21. Urology 791

Joseph C. Presti, Jr., MD, Marshall L. Stoller, MD, & Peter R. Carroll, MD

Urologic Evaluation 791

Evaluation of Hematuria 796

Genitourinary Tract Infections 796

Acute Pyelonephritis 797

Acute Cystitis 799

Acute Bacterial Prostatitis 799

Chronic Bacterial Prostatitis 800

Nonbacterial Prostatitis 800

Prostatodynia 801

Acute Epididymitis 802

Urinary Stone Disease 802

Urinary Incontinence 806

Male Erectile Dysfunction & Sexual
Dysfunction 808

Benign Prostatic Hyperplasia 810

Malignant Genitourinary Tract Disorders 814

Prostate Cancer 814

Bladder Cancer 820

Cancers of the Ureter & Renal Pelvis 822

Primary Tumors of the Kidney 822

Secondary Tumors of the Kidney 823

Primary Tumors of the Testis 824

Secondary Tumors of the Testis 826

22. Nervous System 827

Michael J. Aminoff, MD, FRCP

Headache 827

Facial Pain 830

Epilepsy 832

Neurologic Causes of Syncope 836

Sensory Disturbances 837

Weakness & Paralysis 837

Transient Ischemic Attacks 837

Stroke 840

Intracranial & Spinal Space-Occupying Lesions 847

Nonmetastatic Neurologic Complications of

Malignant Disease 851

Pseudotumor Cerebri 852

Selected Neurocutaneous Diseases 853

Movement Disorders 853

Dementia 860

Multiple Sclerosis 860

Myelopathies in AIDS 862

Myelopathy of Human T Cell Leukemia Virus 862

Subacute Combined Degeneration of the Spinal
Cord 862

Wernicke's Encephalopathy 862

Stupor & Coma 863

Head Injury 865

Spinal Trauma 866

Syringomyelia 867

Motor Neuron Diseases 867

Peripheral Neuropathies 868

Discogenic Neck & Back Pain 878

Brachial & Lumbar Plexus Lesions 879

Disorders of Neuromuscular Transmission 879

Myopathic Disorders 881

Eosinophilia-Myalgia Syndrome 883

Periodic Paralysis Syndrome 883

23. Psychiatric Disorders 884

Stuart J. Eisendrath, MD, & James J. Brophy, MD

Psychiatric Assessment 885

Treatment Approaches 887

Common Psychiatric Disorders 904

Substance Use Disorders 926

Organic Mental Syndromes 934

Geriatric Psychiatric Disorders 937

Death & Dying 938

Psychiatric Problems Associated With Hospitalization
& Medical & Surgical Disorders 939

24. Endocrine Disorders 943

Paul A. Fitzgerald, MD

Common Presentations in Endocrinology 943

Diseases of the Hypothalamus & Pituitary Gland 946

Diseases of the Thyroid Gland 954

The Parathyroids 971

Metabolic Bone Disease 977

Diseases of the Adrenal Cortex 982

Disease of the Adrenal Medulla 990

Diseases of the Pancreatic Islet Cells 993

Diseases of the Testes 994

Diseases of the Ovaries 997

Multiple Endocrine Neoplasia 1000

Clinical Use of Corticosteroids & Corticotropin
(ACTH) 1001

25. Diabetes Mellitus & Hypoglycemia 1004*John H. Karam, MD*Diabetes Mellitus 1004
Diabetic Coma 1030

The Hypoglycemic States 1035

26. Lipid Disorders 1041*Warren S. Browner, MD, MPH*Lipids & Lipoproteins 1041
Lipoproteins & Atherogenesis 1041
Lipid Fractions & the Risk of Coronary Heart
Disease 1043
Therapeutic Effects of Lowering Cholesterol 1044
Low Cholesterol & Other Diseases 1045Secondary Conditions That Affect Lipid Metabolism
1045
Clinical Presentations 1045
Screening for High Blood Cholesterol 1046
Treatment of High LDL Cholesterol 1049
High Blood Triglycerides 1051**27. Nutrition 1053***Robert B. Baron, MD, MS*Nutritional Requirements 1053
Assessment of Nutritional Status 1057
Nutritional Disorders 1061
Eating Disorders 1065Disorders of Vitamin Metabolism 1067
Diet Therapy 1072
Nutritional Support 1075**28. General Problems in Infectious Diseases 1081***Richard A. Jacobs, MD, PhD*Fever of Unknown Origin (FUO) 1081
Infections in the Immunocompromised Patient 1083
Nosocomial Infections 1085
Infections of the Central Nervous System 1086
Animal & Human Bite Wounds 1089
Sexually Transmitted Diseases 1090
Infections in Drug Users 1090Infective Endocarditis 1092
"Food Poisoning" and Acute Gastroenteritis 1093
Traveler's Diarrhea 1096
Recommended Immunization of Children 1096
Recommended Immunization of Adults 1097
Recommended Immunizations for Travelers 1099
Hypersensitivity Tests & Desensitization 1101**29. HIV Infection 1103***Harry Hollander, MD, & Mitchell H. Katz, MD*Epidemiology 1103
Etiology 1105
Pathogenesis 1105
Pathology 1106
Pathophysiology 1106Clinical Findings 1106
Complications & Sequelae 1108
Prevention 1117
Treatment 1119
Course & Prognosis 1125**30. Infectious Diseases: Viral & Rickettsial 1128***Eva Patricia Gill, MD, & Wayne X. Shandera, MD*Viral Diseases 1128
Diagnosis of Viral Infections 1128
Herpesviruses of Humans 1128
Major Vaccine-Preventable Viral Infections 1137
Other Neurotropic Viruses 1143
Other Systemic Viral Diseases 1147
Common Viral Respiratory Infections 1150Viral Diseases (cont'd)
Viral Gastroenteritis 1154
Viruses That Produce Several Syndromes 1154
Rickettsial Diseases 1155
Typhus Group 1155
Spotted Fevers 1158
Other Rickettsial & Rickettsial-Like Diseases 1160

31. Infectious Diseases: Bacterial & Chlamydial	1162
<i>Henry F. Chambers, MD</i>	
Infections Caused by Gram-Positive Bacteria 1162	Nocardiosis 1189
Infections Caused by Gram-Negative Bacteria 1173	Infections Caused by Mycobacteria 1189
Actinomyces 1188	Infections Caused by Chlamydiae 1194
32. Infectious Diseases: Spirochetal	1197
<i>Richard A. Jacobs, MD, PhD</i>	
Syphilis 1197	Miscellaneous Spirochetal Diseases (cont'd)
Non-Sexually Transmitted Treponematoses 1207	Rat-Bite Fever 1208
Miscellaneous Spirochetal Diseases 1208	Leptospirosis 1209
Relapsing Fever 1208	Lyme Disease 1210
33. Infectious Diseases: Protozoal	1215
<i>Robert S. Goldsmith, MD, MPH, DTM&H</i>	
African Trypanosomiasis (Sleeping Sickness) 1215	Coccidiosis: Isosporiasis, Cryptosporidiosis,
American Trypanosomiasis (Chagas' Disease) 1217	Sarcocystosis 1225
Amebiasis 1218	Giardiasis 1227
Pathogenic Free-Living Amebas 1223	Leishmaniasis 1229
Babesiosis (Piroplasmiasis) 1224	Malaria 1232
Balantidiasis 1225	Toxoplasmosis 1241
34. Infectious Diseases: Helminthic	1245
<i>Robert S. Goldsmith, MD, MPH, DTM&H</i>	
Trematode (Fluke) Infections 1245	Nematode (Roundworm) Infections 1258
Cestode Infections 1252	
35. Infectious Diseases: Mycotic	1276
<i>Harry Hollander, MD</i>	
Candidiasis 1276	Paracoccidioidomycosis 1284
Histoplasmosis 1277	Sporotrichosis 1284
Coccidioidomycosis 1278	Chromomycosis 1285
Pneumocystosis 1280	Mycetoma 1285
Cryptococcosis 1282	Mycotic Keratitis 1285
Aspergillosis 1283	Other Opportunistic Mold Infections 1285
Mucormycosis 1283	Antifungal Therapy 1286
Blastomycosis 1284	
36. Anti-infective Chemotherapeutic & Antibiotic Agents	1288
<i>Richard A. Jacobs, MD, PhD</i>	
Some Rules for Antimicrobial Therapy 1288	Sulfones Used in the Treatment of Leprosy 1317
Penicillins 1295	Specialized Drugs Used Against Bacteria 1317
Cephalosporins 1301	Quinolones 1319
Other Beta-Lactam Drugs 1305	Pentamidine & Atovaquone 1321
Erythromycin Group (Macrolides) 1305	Urinary Antiseptics 1321
Azalides 1306	Systemically Active Drugs in Urinary Tract Infections 1322
Tetracycline Group 1307	Antifungal Drugs 1322
Chloramphenicol 1308	Antiviral Chemotherapy 1326
Aminoglycosides 1309	Immunoglobulins 1329
Polymyxins 1312	Antimicrobial Drugs Used in Combination 1330
Antituberculosis Drugs 1312	Antimicrobial Chemoprophylaxis 1331
Sulfonamides & Antifolate Drugs 1315	

37. Disorders Due to Physical Agents	1334
<i>Richard Cohen, MD, MPH, & Brent Moelleken, MD</i>	
Disorders Due to Cold 1334	Ionizing Radiation Reactions 1346
Disorders Due to Heat 1338	Drowning 1348
Burns 1340	Other Disorders Due to Physical Agents 1350
Electric Shock 1345	
38. Poisoning	1355
<i>Kent R. Olson, MD</i>	
Initial Evaluation of the Patient With Poisoning or Drug Overdose 1355	Clinical Laboratory Tests in Management of Poison- ing 1362
The Symptomatic Patient 1355	Treatment of Specific Poisonings (Alphabetical Order) 1364
Other Treatment 1359	
Diagnosis of Poisoning 1362	
39. Medical Genetics	1385
<i>Reed E. Pyeritz, MD, PhD</i>	
Introduction to Medical Genetics 1385	The Techniques of Medical Genetics (cont'd)
Genes & Chromosomes 1386	Prenatal Diagnosis 1398
Mutation 1387	Neoplasia: Chromosomal & DNA Analysis 1399
Genes in Individuals 1388	Selected Inherited Metabolic Diseases 1401
Genes in Families 1389	Marfan's Syndrome 1401
Disorders of Multifactorial Causation 1391	Down's Syndrome 1402
Chromosomal Aberrations 1392	Klinefelter's Syndrome 1402
The Techniques of Medical Genetics 1393	Homocystinuria 1402
Cytogenetics 1393	Gaucher's Disease 1402
Biochemical Genetics 1395	Acute Intermittent Porphyrria 1403
DNA Analysis 1396	Alkaptonuria 1404
Appendix: Therapeutic Drug Concentrations and Reference Ranges	1405
<i>Diana Nicoll, MD, PhD</i>	
Index	1413