

英文原版

现代医学诊断与治疗

revised annually

2002

CURRENT MEDICAL Diagnosis & Treatment

**Adult Ambulatory
& Inpatient Management**

Edited by

Lawrence M. Tierney, Jr.

Stephen J. McPhee

Maxine A. Papadakis



人民卫生出版社



McGraw-Hill

a LANGE medical book

CURRENT

Medical Diagnosis & Treatment 2002

41st Edition

Edited by

Lawrence M. Tierney, Jr., MD

Professor of Medicine

University of California, San Francisco

Associate Chief of Medical Services

Veterans Affairs Medical Center, San Francisco

Stephen J. McPhee, MD

Professor of Medicine

Division of General Internal Medicine

Department of Medicine

University of California, San Francisco

Maxine A. Papadakis, MD

Professor of Clinical Medicine

Associate Dean for Student Affairs

School of Medicine

University of California, San Francisco

With Associate Authors



人民卫生出版社
McGraw-Hill

人民卫生出版社

McGraw-Hill

A Division of The McGraw-Hill Companies



Current Medical Diagnosis & Treatment 2002, Forty-First Edition

Copyright © 2002 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a data base or retrieval system, without prior written permission of the publisher.

Previous editions copyright © 2001 by The McGraw-Hill Companies, Inc.; copyright © 1987 through 1999 by Appleton & Lange.

Notice

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required. The authors and the publisher of this work have checked with sources believed to be reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication. However, in view of the possibility of human error or changes in medical sciences, neither the authors nor the publisher nor any other party who has been involved in the preparation or publication of this work warrants that the information contained herein is in every respect accurate or complete, and they disclaim all responsibility for any errors or omissions or for the results obtained from use of the information contained in this work. Readers are encouraged to confirm the information contained herein with other sources. For example and in particular, readers are advised to check the product information sheet included in the package of each drug they plan to administer to be certain that the information contained in this work is accurate and that changes have not been made in the recommended dose or in the contraindications for administration. This recommendation is of particular importance in connection with new or infrequently used drugs.

图书在版编目(CIP)数据

2002现代医学诊断与治疗/(美)蒂森(Tierzney, L.M.)著.
—影印版. —北京: 人民卫生出版社, 2002
ISBN 7-117-04823-9

I. 2... II. 蒂... III. 疾病—诊疗—英文 IV. R4

中国版本图书馆CIP数据核字(2002)第021057号

图字: 01-2000-1962

2002 现代医学诊断与治疗(英文版)

编 著: Lamrence M. Tierney, Jr., MD 等

出版发行: 人民卫生出版社(中继线 67616688)

地 址: (100078) 北京市丰台区方庄芳群园3区3号楼

网 址: <http://www.pmph.com>

E-mail: pmph@pmph.com

印 刷: 三河市宏达印刷有限公司

经 销: 新华书店

开 本: 787×1092 1/16 印张: 117.5

字 数: 4399千字

版 次: 2002年7月第1版 2002年7月第1版第1次印刷

标准书号: ISBN 7-117-04823-9/R·4824

定 价: 238.00元

著作权所有, 请勿擅自用本书制作各类出版物, 违者必究

(凡属质量问题请与本社发行部联系退换)

Authors

Daniel C. Adelman, MD
Associate Adjunct Professor of Medicine, Division of
Allergy and Immunology, University of California,
San Francisco
dadelman@pcyc.com
Allergic & Immunologic Disorders

Joshua S. Adler, MD
Assistant Clinical Professor of Medicine, Department
of Medicine, University of California, San Fran-
cisco; Director of Ambulatory Practices, University
of California, San Francisco
jadler@itsa.ucsf.edu
Preoperative Evaluation

Thomas M. Amidon, MD
Clinical Instructor, University of Washington, Bellevue
tamidon@oima.org
Heart

Michael J. Aminoff, MD, DSc, FRCP
Professor of Neurology, University of California, San
Francisco; Attending Physician, University of Cali-
fornia, San Francisco
aminoff@itsa.ucsf.edu
The Nervous System

David M. Barbour, PharmD, BCPS
Adjoint Clinical Faculty, School of Pharmacy, Uni-
versity of Colorado Health Sciences Center, Den-
ver; Clinical Pharmacy Specialist, Kaiser Perma-
nente, Boulder
dave.barbour@uchsc.edu
Drug Information

Robert B. Baron, MD, MS
Professor of Medicine; Associate Dean for Continuing
Medical Education; Vice Chief and Director, Edu-
cational Programs, Division of General Internal
Medicine; Director, Primary Care Internal Medi-
cine Residency Program, University of California,
San Francisco
baron@medicine.ucsf.edu
Lipid Abnormalities; Nutrition

Timothy G. Berger, MD
Clinical Professor, Department of Dermatology, Uni-
versity of California, San Francisco
tgberger@orca.ucsf.edu
Skin, Hair, & Nails

Brian M. Berman, MD
Professor of Family Medicine and Director, Comple-
mentary Medicine Program, University of Mary-
land School of Medicine, Baltimore
bberman@compmed.ummc.umaryland.edu
Complementary & Alternative Medicine

Mark Bisanzo, BA
Medical Student, Harvard Medical School, Boston
mark_bisanzo@student.hms.harvard.edu
Internet Resources

Alain R. Bouckennooghe, MD, MPH
Assistant Professor, Baylor College of Medicine; Di-
rector, Prime Care, Veterans Affairs Medical Cen-
ter, Houston
alain.bouckennooghe@med.va.gov
Infectious Diseases: Viral & Rickettsial

Peter R. Carroll, MD, FACS
Professor and Chair, Department of Urology, Univer-
sity of California, San Francisco
pcarroll@urol.ucsf.edu
Urology

Henry F. Chambers, MD
Professor of Medicine, University of California, San
Francisco; Chief, Division of Infectious Diseases,
San Francisco General Hospital
chipc@itsa.ucsf.edu
Infectious Diseases: Bacterial & Chlamydial

Mark S. Chesnutt, MD
Assistant Professor of Medicine, Pulmonary & Criti-
cal Care Medicine, Oregon Health Sciences Uni-
versity, Portland
chesnutm@ohsu.edu
Lung

Richard Cohen, MD, MPH
Clinical Professor, Division of Occupational and En-
vironmental Medicine, University of California,
San Francisco
rcohenmd@pacbell.net
Disorders Due to Physical Agents

Harold R. Collard, MD
Chief Medical Resident, University of California, San
Francisco
collard@itsa.ucsf.edu
References

Kenneth E. Covinsky, MD, MPH
Assistant Professor of Medicine, University of California, San Francisco; Staff Physician, San Francisco Veterans Affairs Medical Center
covinsky@medicine.ucsf.edu
Geriatric Medicine

William R. Crombleholme, MD
Professor and Vice Chair, Department of Obstetrics, Gynecology and Reproductive Sciences, University of Pittsburgh, Magee-Women's Hospital
wcrombleholme@mail.magee.edu
Obstetrics

Stuart J. Eisendrath, MD
Professor of Clinical Psychiatry, University of California, San Francisco; Director, Ambulatory Services, Langley Porter Psychiatric Hospital and Clinics, San Francisco
eisen@itsa.ucsf.edu
Psychiatric Disorders

Paul A. Fitzgerald, MD
Clinical Professor of Medicine, Department of Medicine, Division of Endocrinology, University of California, San Francisco
paulf@itsa.ucsf.edu
Endocrinology

Lawrence S. Friedman, MD
Professor of Medicine, Harvard Medical School; Physician, Gastrointestinal Unit and Chief, Walter Bauer Firm, Massachusetts General Hospital, Boston
friedman.lawrence@mgh.harvard.edu
Liver, Biliary Tract, & Pancreas

Masafumi Fukagawa, MD, PhD, FJSIM
Associate Professor and Chief, Division of Nephrology and Dialysis Center, Kobe University School of Medicine, Japan
fukagawa@med.kobe-u.ac.jp
Fluid & Electrolyte Disorders

Ramiro X. Garcia, MD
Chief Medical Resident, University of California, San Francisco
mek@itsa.ucsf.edu
References

Armando E. Giuliano, MD
Director, Joyce Eisenberg Keefer Breast Center; Clinical Professor of Surgery, University of California, Los Angeles; Chief of Surgical Oncology, John Wayne Cancer Institute, Santa Monica, California
giulianoa@jwci.org
Breast

Lee Goldman, MD, MPH
Julius R. Krevans Distinguished Professor and Chair, Department of Medicine; Associate Dean for Clinical Affairs, School of Medicine, University of California, San Francisco
goldman@medicine.ucsf.edu
Preoperative Evaluation

Robert S. Goldsmith, MD, MPH, DTMH
Professor Emeritus of Tropical Medicine and Epidemiology, Department of Epidemiology and Biostatistics, University of California, San Francisco
rg645@itsa.ucsf.edu
Infectious Diseases: Protozoal & Helminthic

Justin V. Graham, MD
Fellow, Medical Information Sciences Program; Fellow, Division of Infectious Diseases, Stanford University Medical Center, California
jus10@stanford.edu
Information Technology in Patient Care: The Internet, Telemedicine, & Clinical Decision Support; Internet Resources

B. Joseph Guglielmo, PharmD
Professor and Vice Chair, Department of Clinical Pharmacy, School of Pharmacy, University of California, San Francisco
bjg@itsa.ucsf.edu
Anti-infective Chemotherapeutic & Antibiotic Agents

Richard J. Hamill, MD
Professor, Departments of Medicine and Molecular Virology & Microbiology, Baylor College of Medicine; Staff Physician, Veterans Affairs Medical Center, Houston, Texas
richard.hamill@med.va.gov
Infectious Diseases: Mycotic

David B. Hellmann, MD, FACP
Mary Betty Stevens Professor of Medicine; Chairman, Department of Medicine, Johns Hopkins Bayview Medical Center, Johns Hopkins University School of Medicine, Baltimore
hellmann@jhmi.edu
Arthritis & Musculoskeletal Disorders

Harry Hoilander, MD
Professor of Clinical Medicine and Director, Categorical Medicine Residency Program, University of California, San Francisco
drwine@itsa.ucsf.edu
HIV Infection

Ellen F. Hughes, MD, PhD
 Clinical Professor, Department of Medicine, University of California, San Francisco
 ehughes@medicine.ucsf.edu
Complementary & Alternative Medicine

Mary Beth Humphrey, MD, PhD
 Chief Medical Resident, University of California, San Francisco
 mbh@itsa.ucsf.edu
References

Robert K. Jackler, MD
 Professor of Otolaryngology and Neurological Surgery, University of California, San Francisco
 rkj@itsa.ucsf.edu
Ear, Nose, & Throat

Bradly P. Jacobs, MD, MPH
 Assistant Clinical Professor, Department of Medicine; Medical Director, Clinical Programs, Osher Center for Integrative Medicine, University of California, San Francisco
 bradlyj@itsa.ucsf.edu
Complementary & Alternative Medicine

Richard A. Jacobs, MD, PhD
 Clinical Professor of Medicine and Clinical Pharmacy, University of California, San Francisco
 jacobsd@medicine.ucsf.edu
General Problems in Infectious Diseases; Infectious Diseases: Spirochetes; Anti-infective Chemotherapeutic & Antibiotic Agents

Ashish K. Jha, MD
 Chief Medical Resident, University of California, San Francisco/San Francisco Veterans Affairs Medical Center
 ashish@itsa.ucsf.edu
References

C. Bree Johnston, MD, MPH
 Assistant Clinical Professor of Geriatrics, Veterans Affairs Medical Center, San Francisco, California
 bree526@itsa.ucsf.edu
Geriatric Medicine

Michael J. Kaplan, MD
 Associate Professor of Otolaryngology and Neurological Surgery, University of California, San Francisco
 mjkaplan@orca.ucsf.edu
Ear, Nose & Throat

John H. Karam, MD
 Professor of Medicine, Emeritus, Department of Medicine, University of California, San Francisco
 bem69kar@aol.com
Diabetes Mellitus & Hypoglycemia

Mitchell H. Katz, MD
 Associate Clinical Professor of Medicine, Epidemiology & Biostatistics, University of California, San Francisco; Director of Health, San Francisco Department of Public Health
 mitch_katz@dph.sf.ca.us
HIV Infection

Jeffrey L. Kishiyama, MD
 Assistant Clinical Professor of Medicine, University of California, San Francisco
 jkish@itsa.ucsf.edu
Allergic & Immunologic Disorders

Rick G. Kulkarni, MD
 Resident, Harvard Affiliated Emergency Medicine Residency, Department of Emergency Medicine, Brigham & Women's Hospital, Harvard Medical School, Boston
 rkulkarni@partners.org
Information Technology in Patient Care: The Internet, Telemedicine, & Clinical Decision Support; Internet Resources

Kiyoshi Kurokawa, MD, MACP
 Dean and Professor of Medicine, Tokai University School of Medicine, Isehara, Kanagawa, Japan
 kurokawa@is.icc.u-tokai.ac.jp
Fluid & Electrolyte Disorders

Joshua E. Lehrer-Graiwer, MPhil, MD
 Resident, Department of Medicine, University of California, San Francisco
 jlehrer@itsa.ucsf.edu
Internet Resources

Jonathan E. Lichtmacher, MD
 Associate Director, Adult Psychiatry Clinic, Langley Porter Hospitals and Clinics, University of California, San Francisco
 jonathanl@lppi.ucsf.edu
Psychiatric Disorders

Charles A. Linker, MD
 Clinical Professor of Medicine and Director, Adult Leukemia and Bone Marrow Transplantation Program, University of California, San Francisco
Blood

William L. Lyons, MD
Assistant Clinical Professor, University of California,
San Francisco
wlyons@itsa.ucsf.edu
Geriatric Medicine

H. Trent MacKay, MD, MPH
Associate Professor of Obstetrics and Gynecology,
Uniformed Services, University of the Health Sci-
ences, Bethesda, Maryland; Chief, Obstetrics and
Gynecology Service, National Naval Medical Cen-
ter, Bethesda, Maryland
mackayt@mail.nih.gov
Gynecology

Umesh Masharani, MB, BS; MRCP(UK)
Associate Clinical Professor of Medicine, Depart-
ment of Endocrinology and Metabolism, Univer-
sity of California, San Francisco
ubm@itsa.ucsf.edu
Diabetes Mellitus & Hypoglycemia

Barry M. Massie, MD
Professor of Medicine, University of California, San
Francisco; Chief, Cardiology Division, San Fran-
cisco Veterans Affairs Medical Center
Heart; Systemic Hypertension

George R. Matcuk, Jr.
Medical Student, Stanford University School of Med-
icine, California
gmatcuk@leland.stanford.edu
Internet Resources

Stephen J. McPhee, MD
Professor of Medicine, Division of General Internal
Medicine, Department of Medicine, University of
California, San Francisco
smcphee@medicine.ucsf.edu
*General Approach to the Patient; Health Maintenance
& Disease Prevention; & Common Symptoms*

Kenneth R. McQuaid, MD
Professor of Clinical Medicine, University of Califor-
nia, San Francisco; Director of Gastrointestinal
Endoscopy, San Francisco Veterans Affairs Medi-
cine Center
krmcq@itsa.ucsf.edu
Alimentary Tract

Louis M. Messina, MD
Professor and Chief, Division of Vascular Surgery,
Department of Surgery, University of California,
San Francisco
messina@surgery.ucsf.edu
Blood Vessels & Lymphatics

Brent R.W. Moelleken, MD, FACS
Plastic and Reconstructive Surgery; Attending Sur-
geon, University of California, Los Angeles Medical
Center; Private Practice, Beverly Hills, California
rijuv@aol.com
Disorders Due to Physical Agents

Gail Morrison, MD, FACP
Vice Dean for Education, Director of Academic Pro-
grams, and Professor of Medicine, School of Medi-
cine, University of Pennsylvania, Philadelphia
morrisog@mail.med.upenn.edu
Kidney

C. Diana Nicoll, MD, PhD, MPA
Clinical Professor and Vice Chair, Department of
Laboratory Medicine; Associate Dean, University
of California, San Francisco; Chief of Staff and
Chief, Laboratory Medicine Service, San Francisco
Veterans Affairs Medical Center
diana.nicoll@med.va.gov
*Diagnostic Testing & Medical Decision Making; Appen-
dix: Therapeutic Drug Monitoring & Laboratory
Reference Ranges*

Kent R. Olson, MD
Clinical Professor of Medicine and Pharmacy, Univer-
sity of California, San Francisco; Medical Director,
San Francisco Division, California Poison Control
System, University of California, San Francisco
olson@itsa.ucsf.edu
Poisoning

Steven Z. Pantilat, MD
Assistant Clinical Professor of Medicine, University of
California, San Francisco; Project on Death in
America Faculty Scholar; Director, Comfort Care
Suites and Attending Physician, Moffitt-Long
Hospital, San Francisco
stevep@medicine.ucsf.edu
Care at the End of Life

Maxine A. Papadakis, MD
Professor of Clinical Medicine and Associate Dean for
Student Affairs, School of Medicine, University of
California, San Francisco
papadakm@medsch.ucsf.edu
Fluid & Electrolyte Disorders

Michael Pignone, MD, MPH
Assistant Professor of Medicine, University of North
Carolina, Chapel Hill
pignone@med.unc.edu
*General Approach to the Patient; Health Maintenance
& Disease Prevention; & Common Symptoms; Diag-
nostic Testing & Medical Decision-Making*

Thomas J. Prendergast, MD
Associate Professor of Medicine and Anesthesiology,
Dartmouth Medical School, Hanover, New
Hampshire
thomas.j.prendergast@hitchcock.org
Lung

Joseph C. Presti, Jr., MD
Associate Professor; Director, Genitourinary
Oncology Program, Department of Urology,
Stanford University School of Medicine, Stanford,
California
jpresti@stanford.edu
Urology

Reed E. Pyeritz, MD, PhD
Professor of Medicine and Genetics; Chief, Division
of Medical Genetics, University of Pennsylvania
School of Medicine, Philadelphia
pyeritzr@yahoo.com
Medical Genetics

Michael W. Rabow, MD
Assistant Clinical Professor of Medicine, Division of
General Internal Medicine, University of California,
San Francisco
mrabow@medicine.ucsf.edu
Care at the End of Life

Neil M. Resnick, MD
Professor of Medicine and Chief, Division of Geri-
atric Medicine, University of Pittsburgh and
UPMC Health System
Pittsburgh, Pennsylvania
resnicknm@msx.dept-med.pitt.edu
Geriatric Medicine

Paul Riordan-Eva, FRCOphth
Consultant Ophthalmologist, King's College
Hospital, London; Honorary Consultant
Neuro-Ophthalmologist, National Hospital
for Neurology and Neurosurgery, London,
United Kingdom
paulreva@doctors.org.uk
Eye

Hope S. Rugo, MD
Associate Clinical Professor of Medicine, Comprehen-
sive Cancer Center, University of California, San
Francisco
hope.rugo@ucsfmedctr.org
Cancer

Steven A. Schroeder, MD
Clinical Professor of Medicine, University of Medi-
cine and Dentistry of New Jersey, Robert Wood
Johnson Medical School, New Brunswick; Presi-
dent and CEO, The Robert Wood Johnson Founda-
tion, Princeton, New Jersey
ss@rwjf.org
*General Approach to the Patient; Health Maintenance
& Disease Prevention; & Common Symptoms*

Wayne X. Shandera, MD
Assistant Professor of Internal Medicine, Baylor Col-
lege of Medicine, Houston
shandera@bcm.tmc.edu
Infectious Diseases: Viral & Rickettsial

Michael A. Steinman, MD
Fellow, VA National Quality Scholars Program, Uni-
versity of California, San Francisco and San Fran-
cisco Veterans Affairs Medical Center
mstein@itsa.ucsf.edu
References

Marshall L. Stoller, MD
Professor, Department of Urology, University of Cali-
fornia, San Francisco
mstoller@urol.ucsf.edu
Urology

John H. Stone, MD, MPH
Assistant Professor of Medicine, Division of Rheuma-
tology, Johns Hopkins Hospital; Director, Johns
Hopkins Vasculitis Center, Baltimore
jstone@mail.jhmi.edu
Arthritis & Musculoskeletal Disorders

Lawrence M. Tierney, Jr., MD
Professor of Medicine, University of California, San
Francisco; Associate Chief of Medical Services, San
Francisco Veterans Affairs Medical Center
vaspa@itsa.ucsf.edu
Blood Vessels & Lymphatics

Suzanne Watnick, MD
Nephrology Fellow and Robert Wood Johnson Clini-
cal Scholar, Yale University, Yale-New Haven
Hospital, Connecticut
suzanne.watnick@yale.edu
Kidney

Preface

Current Medical Diagnosis & Treatment 2002 is the 41st annual volume of this single-source reference for practitioners in both hospital and ambulatory settings. It emphasizes the practical features of clinical diagnosis and patient management in all fields of internal medicine and in specialties of interest to primary care practitioners and subspecialists who provide generalist care.

OUTSTANDING FEATURES

- Medical advances up to the time of publication
- Detailed presentation of all primary care topics, including gynecology, obstetrics, dermatology, ophthalmology, otolaryngology, psychiatry, neurology, toxicology, and urology
- Concise format, facilitating efficient use in any practice setting
- More than 1000 diseases and disorders
- Only text with annual update of HIV infection
- Disease prevention and treatment cost information
- Easy access to drug dosages, with trade names indexed and prices updated in each edition
- Annotated recent references, with unique identifiers (PMID, which currently are being introduced, or NLM Cit ID, which are being phased out) for all citations as well as Web sites selected for clinical relevance
- Companion Web site featuring direct links to more than 450 selected Web sites
- Inexpensive

INTENDED AUDIENCE

House officers and all students of the healing arts will find the descriptions of diagnostic and therapeutic modalities, with citations to the current literature, of everyday usefulness in patient care.

Internists, family physicians, nurse practitioners, and other primary care providers will appreciate *CMDT* as a ready reference and refresher text. Physicians in other specialties, surgeons, and dentists will find the book a basic internal medicine reference.

Nurses and physician assistants will welcome the format and scope of the book as a means of learning diagnosis and treatment.

SPECIAL TO THIS EDITION

- Updated information on diagnosis and management of ischemic heart disease and pharmacologic treatment of congestive heart failure; end-of-life care information integrated throughout the text
- Advances in leukemia, hepatitis C, and nonalcoholic fatty liver disease
- Developments in diabetes mellitus, asthma, and HIV infection
- New information on alternative medicine and complementary therapies
- Major revision of chapters on geriatric medicine, ear, nose, and throat, the lung, the kidney, arthritis and musculoskeletal disorders, allergy and immunology, and information technology in patient care
- Drug information, bibliographies, and Web sites updated through June 2001
- An update on antibiotics, including new antiviral and antifungal agents
- Listing of key Internet addresses for peer-reviewed, current medical information, including:
 - Centers for Disease Control and Prevention traveler's and immunization information
 - National Institutes of Health Consensus Statements
 - The Agency for Healthcare Research and Quality of the United States Public Health Service Clinical Guidelines
- Complete listing of Poison Control Centers with telephone numbers

COMPANION WEB SITE

CMDT's companion Web site, Current-Med.com, contains an annotated list of not only the Internet sites referenced in the book, but also Web sites selected and revised throughout the year. The entries provide descriptions of

sites with ratings on a six-category scale. All linked Internet addresses are updated monthly. The companion Web site address is provided on the first and last pages of each chapter so readers can access referenced sites whose URLs may have changed since publication.

CMDT IS ONLINE IN 2002

In early 2002 the online version of *CMDT* will be available. It will include the most current content in the book version as well as these valuable features:

- An integrated drug database
- New diagnostic test information
- Up-to-date clinical guidelines for screening, prevention, and patient management
- Hundreds of new color images, graphs, algorithms, and tables
- Patient education materials you can print
- Relevant Web sites keyed to chapter content
- Direct PubMed links to abstracts of all references to provide valuable evidence-based resources
- Clinical vignettes linked to chapter content and Internet resources
- Puzzles to improve learners' pattern recognition

ORDER OR SUBSCRIBE TO CMDT

It is now possible to receive each year's edition of the only annually updated textbook of medicine automatically upon publication simply by returning the enclosed postcard to McGraw-Hill. You can order *Current Medical Diagnosis and Treatment* 2002 and the 2001 CD-ROM by visiting the McGraw-Hill Web site, <http://www.mghmedical.com>, or calling 1-800-262-4729.

ACKNOWLEDGMENTS

We wish to thank our associate authors for participating once again in the annual updating of this important book. In particular, we wish to thank Dr. Ralph Gonzales, University of California, San Francisco, for his editorial supervision of the CD-ROM editions in 1998 and 2001. We would like to recognize the contribution to *CMDT* of several past authors: Dr. Daniel G. Vaughan originated the chapter on the eye and continued as one of its authors until his death last year, and Dr. Robert V. Brody participated in the original and subsequent revisions of the end-of-life chapter until this edition. A special acknowledgment and apology are due Dr. Alain R. Bouckennooghe, whose coauthorship of the chapter on Infectious Diseases: Viral and Rickettsial was erroneously omitted in the 2001 edition.

Many students and physicians have contributed useful suggestions to this and previous editions, and we are grateful. We continue to welcome comments and recommendations for future editions in writing or via electronic mail. The editors' and authors' institutional and e-mail addresses are given in the Authors section that follows.

Lawrence M. Tierney, Jr., MD
 Stephen J. McPhee, MD
 Maxine A. Papadakis, MD

San Francisco, California
 September 2001

From inability to let alone; from too much zeal for the new and contempt for what is old; from putting knowledge before wisdom, and science before art and cleverness before common sense; from treating patients as cases; and from making the cure of the disease more grievous than the endurance of the same, Good Lord, deliver us.

—Sir Robert Hutchison

Contents

Authors.....	xiii
Preface	xix
1. General Approach to the Patient; Health Maintenance & Disease Prevention; & Common Symptoms	1
<i>Stephen J. McPhee, MD, Michael Pignone, MD, MPH, & Steven A. Schroeder, MD</i>	
General Approach to the Patient 1	Common Symptoms 16
Health Maintenance & Disease Prevention 2	Pain 16
Prevention of Infectious Diseases 2	Fever & Hyperthermia 27
Cardiovascular Diseases 4	Weight Loss 29
Physical Inactivity & Sedentary Lifestyle 10	Fatigue 29
Cancer Prevention 11	Relevant World Wide Web Sites 31
Prevention of Injuries & Violence 13	
Substance Abuse: Alcohol & Illicit Drugs 14	
2. Preoperative Evaluation	33
<i>Joshua S. Adler, MD, & Lee Goldman, MD, MPH</i>	
Physiologic Effects of Anesthesia & Surgery 33	Neurologic Evaluation 41
Evaluation of the Asymptomatic Patient 33	Management of Endocrine Diseases 41
Cardiac Risk Assessment 33	Renal Disease 43
Pulmonary Evaluation in Non-Lung Resection Surgery 38	Antibiotic Prophylaxis of Surgical Wound Infections 43
Evaluation of the Patient with Liver Disease 39	Relevant World Wide Web Sites 45
Preoperative Hematologic Evaluation 40	
3. Geriatric Medicine.....	47
<i>William L. Lyons, MD, C. Bree Johnston, MD, MPH, Kenneth E. Covinsky, MD, & Neil M. Resnick, MD</i>	
General Principles of Geriatric Medicine 47	Delirium 57
General Approach to the Older Patient 49	Immobility 58
Assessment of the Elderly 50	Falls & Gait Disorders 59
Selected Preventive Measures in Geriatric Practice 53	Urinary Incontinence 60
Common Problems of the Frail Elderly 54	Weight Loss & Malnutrition 63
Dementia 54	Pharmacotherapy & Polypharmacy 64
Depression 57	Relevant World Wide Web Sites 65
4. Cancer.....	67
<i>Hope S. Rugo, MD</i>	
Incidence & Etiology 67	Systemic Cancer Therapy 82
Prevention of Cancer 71	Adjuvant Chemotherapy
Primary Prevention 71	for Micrometastases 89
Secondary Prevention 77	Toxicity & Dose Modification
Special Topics in Prevention 78	of Chemotherapeutic Agents 96
Staging of Cancer 79	Evaluation of Tumor Response 101
Primary Cancer Treatment 80	Tumor Size 102
Surgery & Radiation Therapy 80	Tumor Markers 102

General Well-Being, Performance Status,
& Supportive Care 103
Cancer Complications: Diagnosis
& Management 104
Oncologic Emergencies 104
Other Complications 107

The Paraneoplastic Syndromes 110
Novel Therapies for Cancer Treatment 113
Alternative & Complementary Therapies
for Cancer Treatment 115
Relevant World Wide Web Sites 116

5. Care at the End of Life 117

Michael W. Rabow, MD, & Steven Z. Pantilat, MD

The End of Life 117
Diagnosis of the End of Life 117
Expectations About the End of Life 117
Communication & the Role of the Physician
at the End of Life 118
Caring for the Family 118
The Limits of Care at the End of Life 118
The Setting & Structure of Care 119
Ethical & Legal Background 119
Advance Directives 120
DNAR Orders 120
Hospice Care 121
Cultural Issues 121

The Specific Tasks of Caring 122
Symptom Management 122
Nutrition & Hydration 124
Withdrawal of Support 124
Psychologic, Social, & Spiritual Issues 125
Tasks After Death 127
The Pronouncement & Death Certificate 127
Autopsy & Organ Donation 127
Follow-Up & Grieving 127
Relevant World Wide Web Sites 128

6. Skin, Hair, & Nails 129

Timothy G. Berger, MD

Diagnosis of Skin Disorders 129
Principles of Dermatologic Therapy 129
Common Dermatoses 135
Pigmented Lesions 135
Scaling Disorders 138
Vesicular Dermatoses 152
Weeping or Encrusted Lesions 157
Pustular Disorders 159
Figurate Erythemas 165
Blistering Diseases 169
Papules 172
Violaceous to Purple Papules & Nodules 175

Pruritus (Itching) 177
Inflammatory Nodules 181
Photodermatitis 183
Ulcers 184
Miscellaneous Dermatologic Disorders 186
Pigmentary Disorders 186
Baldness (Alopecia) 188
Nail Disorders 189
Dermatitis Medicamentosa
(Drug Eruption) 190
Relevant World Wide Web Sites 194

7. Eye 195

Paul Riordan-Eva, FRCOphth

Symptoms of Ocular Disease 195
Ocular Examination 196
Ophthalmologic Referrals 198
Refractive Errors 198
Disorders of the Lids & Lacrimal Apparatus 199
Conjunctivitis 201
Pinguecula & Pterygium 203
Corneal Ulcer 203
Acute (Angle-Closure) Glaucoma 205
Open-Angle Glaucoma 206
Uveitis 207
Cataract 208
Retinal Detachment 209
Vitreous Hemorrhage 210

Age-Related Macular Degeneration 210
Central & Branch Retinal Vein Occlusions 211
Central & Branch Retinal Artery Occlusions 211
Amaurosis Fugax 212
Retinal Disorders Associated With Systemic
Diseases 212
Anterior Ischemic Optic Neuropathy 215
Optic Neuritis 215
Optic Disk Swelling 216
Ocular Motor Palsies 216
Dysthyroid Eye Disease 216
Orbital Cellulitis 217
Ocular Trauma 217
Principles of Treatment of Ocular Infections 219

Techniques Used in the Treatment of Ocular Disorders 219	Adverse Ocular Effects of Systemic Drugs 225
Precautions in Management of Ocular Disorders 219	Relevant World Wide Web Sites 225
8. Ear, Nose, & Throat	227
<i>Robert K. Jackler, MD, & Michael J. Kaplan, MD</i>	
Diseases of the Ear 227	Foreign Bodies in the Upper Aerodigestive Tract 262
Diseases of the Nose & Paranasal Sinuses 241	Diseases Presenting as Neck Masses 263
Diseases of the Oral Cavity & Pharynx 250	Otolaryngologic Manifestations of HIV Infection 266
Diseases of the Salivary Glands 256	Relevant World Wide Web Sites 268
Diseases of the Larynx 258	
Tracheotomy & Cricothyrotomy 261	
9. Lung	269
<i>Mark S. Chesnutt, MD, & Thomas J. Prendergast, MD</i>	
Common Manifestations of Lung Disease 269	Interstitial Lung Disease 327
Dyspnea 269	Disorders of the Pulmonary Circulation 332
Cough 270	Environmental & Occupational Lung Disorders 344
Hemoptysis 271	Pleural Diseases 350
Approach to the Patient 272	Disorders of Control of Ventilation 356
Physical Examination 272	Acute Respiratory Failure 358
Pulmonary Function Tests 273	Acute Respiratory Distress Syndrome (ARDS) 360
Disorders of the Airways 276	Relevant World Wide Web Sites 362
Pulmonary Infections 299	
Pulmonary Neoplasms 317	
10. Heart	363
<i>Barry M. Massie, MD, & Thomas M. Amidon, MD</i>	
Symptoms & Signs 363	Diseases of the Pericardium 447
Diagnostic Testing 366	Pulmonary Hypertension & Heart Disease 450
Congenital Heart Disease 367	Neoplastic Diseases of the Heart 451
Valvular Heart Disease 372	Cardiac Involvement in Miscellaneous Systemic Diseases 452
Coronary Heart Disease 383	Traumatic Heart Disease 453
Disturbances of Rate & Rhythm 410	The Cardiac Patient & Surgery 453
Bradycardias & Conduction Disturbances 425	The Cardiac Patient & Pregnancy 454
Cardiac Failure 429	Relevant World Wide Web Sites 457
Myocarditis & the Cardiomyopathies 440	
Acute Rheumatic Fever & Rheumatic Heart Disease 445	
11. Systemic Hypertension	459
<i>Barry M. Massie, MD</i>	
Management of Hypertension 459	Hypertensive Urgencies & Emergencies 482
Drug Therapy 466	Relevant World Wide Web Sites 484
12. Blood Vessels & Lymphatics	485
<i>Louis M. Messina, MD & Lawrence M. Tierney, Jr., MD,</i>	
Diseases of the Aorta 485	Diseases of the Lymphatic Channels 511
Atherosclerotic Occlusive Disease 490	Hypotension & Shock 512
Vasomotor Disorders 499	Relevant World Wide Web Sites 516
Venous Diseases 502	

13. Blood	517
<i>Charles A. Linker, MD</i>	
Anemias 517	Disorders of Hemostasis 552
Neutropenia 534	Hypercoagulable States 565
Leukemias & Other Myeloproliferative Disorders 535	Blood Transfusions 567
Lymphomas 547	Relevant World Wide Web Sites 569
14. Alimentary Tract	571
<i>Kenneth R. McQuaid, MD</i>	
Symptoms & Signs of Gastrointestinal Disease 571	Diseases of the Small Intestine 631
Diseases of the Peritoneum 592	Diseases of the Colon & Rectum 644
Diseases of the Esophagus 597	Anorectal Diseases 668
Diseases of the Stomach & Duodenum 614	Relevant World Wide Web Sites 672
15. Liver, Biliary Tract, & Pancreas	675
<i>Lawrence S. Friedman, MD</i>	
Jaundice (Icterus) 675	Diseases of the Pancreas 713
Diseases of the Liver 678	Relevant World Wide Web Sites 720
Diseases of the Biliary Tract 705	
16. Breast	721
<i>Armando E. Giuliano, MD</i>	
Benign Breast Disorders 721	Staging 731
Fibrocystic Disease 721	Pathologic Types 731
Fibroadenoma of the Breast 722	Special Clinical Forms of Breast Cancer 731
Nipple Discharge 722	Hormone Receptor Sites 734
Fat Necrosis 723	Curative Treatment 734
Breast Abscess 723	Palliative Treatment 738
Disorders of the Augmented Breast 723	Prognosis 740
Carcinoma of the Female Breast 724	Follow-Up Care 741
Incidence & Risk Factors 724	Carcinoma of the Male Breast 743
Early Detection of Breast Cancer 725	Relevant World Wide Web Sites 744
Differential Diagnosis 731	
17. Gynecology	745
<i>H. Trent MacKay, MD, MPH</i>	
Abnormal Premenopausal Bleeding 745	Carcinoma of the Endometrium 755
Postmenopausal Vaginal Bleeding 747	Carcinoma of the Vulva 756
Premenstrual Syndrome (Premenstrual Tension) 747	Endometriosis 757
Dysmenorrhea 748	Genital Prolapse 758
Vaginitis 748	Uterine Prolapse 758
Cervicitis 750	Pelvic Inflammatory Disease 758
Cervical Polyps 750	Ovarian Tumors 760
Cyst & Abscess of Bartholin's Duct 750	Persistent Anovulation 763
Effects of Exposure to Diethylstilbestrol In Utero 750	Painful Intercourse (Dyspareunia) 764
Cervical Intraepithelial Neoplasia 751	Infertility 765
Carcinoma of the Cervix 753	Contraception 768
Leiomyoma of the Uterus 754	Rape 775
	Menopausal Syndrome 777
	Relevant World Wide Web Sites 779

18. Obstetrics	781
<i>William R. Crombleholme, MD</i>	
Diagnosis & Differential Diagnosis of Pregnancy 781	Gestational Trophoblastic Neoplasia 791
Essentials of Prenatal Care 781	Third-Trimester Bleeding 792
Nutrition in Pregnancy 784	Medical Conditions Complicating Pregnancy 793
Travel & Immunizations During Pregnancy 785	Surgical Complications During Pregnancy 800
Vomiting of Pregnancy & Hyperemesis Gravidarum 785	Prevention of Hemolytic Disease of the Newborn 801
Spontaneous Abortion 785	Prevention of Preterm (Premature) Labor 802
Recurrent (Habitual) Abortion 787	Lactation 802
Ectopic Pregnancy 787	Puerperal Mastitis 805
Preeclampsia-Eclampsia 788	Relevant World Wide Web Sites 805
19. Allergic & Immunologic Disorders	807
<i>Jeffrey L. Kishiyama, MD, & Daniel C. Adelman, MD</i>	
Allergic Diseases 807	Autoimmunity 823
Atopic Disease 808	Autoimmune Diseases 824
Allergic Rhinitis 809	Tests for Autoantibodies Associated with Disease 824
Anaphylaxis, Urticaria, & Angioedema 812	Immunogenetics & Transplantation 824
Drug Allergy 813	Genetic Control of the Immune Response 824
Immune Complex Disease (Serum Sickness) 814	Associations between HLA Antigens & Specific Diseases 826
Pseudoallergic Reactions 815	Clinical Transplantation 826
Clinical Immunology 815	Mechanism of Action of Immunosuppressive Drugs 829
Cells Involved in Immunity 815	Immunomodulating Therapies 830
Tests for Cellular Immunity 818	Relevant World Wide Web Sites 831
Immunoglobulin Structure & Function 819	
Immunodeficiency Disorders 820	
Selective Immunoglobulin A Deficiency 821	
Common Variable Immunodeficiency 821	
Diseases of Immunoglobulin Overproduction 822	
20. Arthritis & Musculoskeletal Disorders	833
<i>David B. Hellmann, MD, FACP, & John H. Stone, MD, MPH</i>	
Diagnosis & Evaluation 833	Infections of Bones 883
Degenerative & Crystal-Induced Arthritis 834	Tumors & Tumor-Like Lesions of Bone 886
Pain Syndromes 841	Other Rheumatic Disorders 887
Autoimmune Diseases 853	Some Orthopedic Procedures for Arthritic Joints 888
Vasculitis Syndromes 870	Relevant World Wide Web Sites 889
Seronegative Spondyloarthropathies 876	
Infectious Arthritis 880	
21. Fluid & Electrolyte Disorders	891
<i>Masafumi Fukagawa, MD, PhD, Kiyoshi Kurokawa, MD, MACP, & Maxine A. Papadakis, MD</i>	
Diagnosis of Fluid & Electrolyte Disorders 891	Disorders of Phosphorus Concentration 903
Treatment of Specific Fluid, Electrolyte, & Acid-Base Disorders 892	Disorders of Magnesium Concentration 906
Disorders of Sodium Concentration 892	Hyperosmolar Disorders & Osmolar Gaps 907
Disorders of Potassium Concentration 897	Acid-Base Disorders 907
Disorders of Calcium Concentration 901	Fluid Management 916
	Relevant World Wide Web Sites 917

22. Kidney	919
<i>Suzanne Watnick, MD, & Gail Morrison, MD</i>	
Approach to Renal Disease	919
Acute Renal Failure	923
Chronic Renal Disease	929
Glomerulonephropathies	937
Tubulointerstitial Diseases	947
Cystic Diseases of the Kidney	949
Medullary Sponge Kidney	951
Multisystem Diseases with Variable Kidney Involvement	951
The Kidney & Aging	952
Relevant World Wide Web Sites	953
23. Urology	955
<i>Marshall L. Stoller, MD, Joseph C. Presti, MD, & Peter R. Carroll, MD, FACS</i>	
Urologic Evaluation	955
Evaluation of Hematuria	960
Genitourinary Tract Infections	960
Acute Cystitis	962
Acute Pyelonephritis	962
Acute Bacterial Prostatitis	964
Chronic Bacterial Prostatitis	965
Nonbacterial Prostatitis	965
Prostatodynia	966
Acute Epididymitis	967
Urinary Stone Disease	968
Urinary Incontinence	972
Interstitial Cystitis	974
Male Erectile Dysfunction & Sexual Dysfunction	975
Male Infertility	977
Benign Prostatic Hyperplasia	978
Malignant Genitourinary Tract Disorders	985
Prostate Cancer	985
Bladder Cancer	990
Cancers of the Ureter & Renal Pelvis	993
Primary Tumors of the Kidney	993
Secondary Tumors of the Kidney	994
Primary Tumors of the Testis	995
Secondary Tumors of the Testis	997
Relevant World Wide Web Sites	997
24. Nervous System	999
<i>Michael J. Aminoff, MD, DSc, FRCP</i>	
Headache	999
Facial Pain	1003
Epilepsy	1005
Syncope & Dysautonomia	1010
Sensory Disturbances	1011
Weakness & Paralysis	1011
Transient Ischemic Attacks	1012
Stroke	1014
Intracranial & Spinal Space-Occupying Lesions	1021
Nonmetastatic Neurologic Complications of Malignant Disease	1026
Pseudotumor Cerebri	1027
Selected Neurocutaneous Diseases	1027
Movement Disorders	1028
Dementia	1035
Multiple Sclerosis	1035
Vitamin E Deficiency	1037
Spasticity	1037
Myelopathies in AIDS	1037
Myelopathy of Human T Cell Leukemia Virus	1037
Subacute Combined Degeneration of the Spinal Cord	1038
Wernicke's Encephalopathy	1038
Stupor & Coma	1038
Head Injury	1040
Spinal Trauma	1041
Syringomyelia	1042
Motor Neuron Diseases	1042
Peripheral Neuropathies	1043
Discogenic Neck Pain	1050
Brachial & Lumbar Plexus Lesions	1053
Disorders of Neuromuscular Transmission	1053
Myopathic Disorders	1055
Periodic Paralysis Syndrome	1057
Relevant World Wide Web Sites	1057
25. Psychiatric Disorders	1059
<i>Stuart J. Eisendrath, MD, & Jonathan E. Lichtmacher, MD</i>	
Psychiatric Assessment	1059
Treatment Approaches	1062
Common Psychiatric Disorders	1063
Substance Use Disorders	1104
Delirium, Dementia, & Other Cognitive Disorders	1112
Geriatric Psychiatric Disorders	1115
Psychiatric Problems Associated with Hospitalization & Medical & Surgical Disorders	1117
Relevant World Wide Web Sites	1119