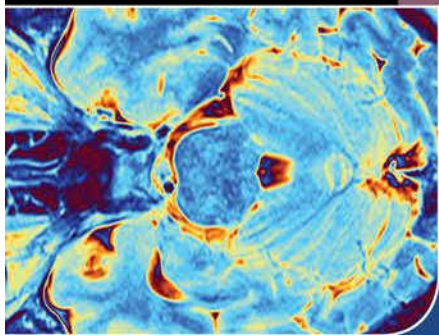


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Preface

Current Medical Diagnosis & Treatment 2019 (CMDT 2019) is the 58th edition of this single-source reference for practitioners in both hospital and ambulatory settings. The book 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 to subspecialists who provide general care.

Our students have inspired us to look at issues of race and justice, which surely impact people's health. We have therefore reviewed the content of our work to ensure that it contains the dignity and equality that every patient deserves.

INTENDED AUDIENCE FOR CMDT

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

Internists, family physicians, hospitalists, nurse practitioners, physician assistants, and all primary care providers will appreciate *CMDT* as a ready reference and refresher text. Physicians in other specialties, pharmacists, and dentists will find the book a useful basic medical reference text. Nurses, nurse practitioners, and physician assistants will welcome the format and scope of the book as a means of referencing medical diagnosis and treatment.

Patients and their family members who seek information about the nature of specific diseases and their diagnosis and treatment may also find this book to be a valuable resource.

NEW IN THIS EDITION OF CMDT

- New color figures throughout the book
- Rewritten section on pain management at the end of life
- Updated American College of Cardiology/American Heart Association (ACC/AHA) guidelines for treatment of valvular heart disease
- ACC consensus document providing decision pathway for use of transcatheter aortic valve replacement
- Extensively revised sections on long QT syndrome; AV block; and sinus arrhythmia, bradycardia, and tachycardia
- Rewritten section on atrial tachycardia
- Substantial revision of ventricular tachycardia management
- New algorithms for managing mitral regurgitation and heart failure with reduced ejection fraction
- New table outlining management strategies for women with valvular heart disease, complex congenital heart disease, pulmonary hypertension, aortopathy, and dilated cardiomyopathy
- New ACC/AHA and Hypertension Canada blood pressure guidelines
- New table outlining blood pressure values across a range of measurement methods (ie, home and ambulatory monitoring)
- New table comparing blood pressure treatment thresholds and targets in the 2017 ACC/AHA guidelines with the 2017 Hypertension Canada guidelines
- New FDA-approved medications for relapsing or refractory forms of leukemia
- Rewritten section on monoclonal gammopathy of uncertain significance
- New FDA-approved direct-acting oral anticoagulant
- Information regarding commercially available freeze-dried capsule fecal formulation for treatment of recurrent and refractory *Clostridium difficile* infection
- New FDA-approved medications for treatment of breast cancer
- Cancer Care Ontario and American Society of Clinical Oncology jointly published guidelines outlining adjuvant therapy plan for postmenopausal breast cancer patients
- Substantial revision of the targeted therapies for hormone receptor–positive metastatic breast cancer
- American College of Obstetricians and Gynecologists support for considering use of low-dose aspirin to prevent preeclampsia

- Revised recommendations for treating hepatitis C virus–associated kidney disease
- New chronic tubulointerstitial disease called Mesoamerican nephropathy
- Detailed discussion of available treatment options for refractory trigeminal neuralgia
- New classification of epilepsy
- Updated information about treating spinal muscular atrophy
- Substantial revision of Psychiatric Disorders chapter
- New section on incidentally discovered adrenal masses
- Updated treatment section for classic Turner syndrome
- New FDA-approved integrase inhibitor for treatment of HIV-1 infection
- Extensive revision of Viral & Rickettsial Infections chapter
- New FDA-approved medication for gastric adenocarcinoma
- New colon cancer screening recommendations from the US Multi-Society Task Force

OUTSTANDING FEATURES OF CMDT

- Medical advances up to time of annual publication
- Detailed presentation of primary care topics, including gynecology, obstetrics, dermatology, ophthalmology, otolaryngology, psychiatry, neurology, toxicology, urology, geriatrics, orthopedics, women's health, preventive medicine, and palliative care
- Concise format, facilitating efficient use in any practice setting
- More than 1000 diseases and disorders
- Annual update on HIV/AIDS and other newly emerging infections
- Specific disease prevention information
- Easy access to medication dosages, with trade names indexed and costs updated in each edition
- Recent references, with unique identifiers (PubMed, PMID numbers) for rapid downloading of article abstracts and, in some instances, full-text reference articles

E-CHAPTERS, CMDT ONLINE, & AVAILABLE APPS

E- Chapters mentioned in the table of contents can be accessed at www.AccessMedicine.com/CMDT. The seven online-only chapters available without need for subscription at www.AccessMedicine.com/CMDT include

- Anti-Infective Chemotherapeutic & Antibiotic Agents
- Diagnostic Testing & Medical Decision Making
- Information Technology in Patient Care
- Integrative Medicine
- Podiatric Disorders
- Women's Health Issues
- Appendix: Therapeutic Drug Monitoring & Laboratory Reference Intervals, & Pharmacogenetic Testing

Institutional or individual subscriptions to AccessMedicine will also have full electronic access to *CMDT 2019*.

Subscribers to *CMDT Online* receive full electronic access to *CMDT 2019* as well as

- An expanded, dedicated media gallery
- *Quick Medical Diagnosis & Treatment (QMDT)*—a concise, bulleted version of *CMDT 2019*
- *Guide to Diagnostic Tests*—for quick reference to the selection and interpretation of commonly used diagnostic tests
- CURRENT Practice Guidelines in Primary Care—delivering concise summaries of the most relevant guidelines in primary care
- *Diagnosaurus*—consisting of 1000+ differential diagnoses

CMDT 2019, *QMDT*, *Guide to Diagnostic Tests*, and *Diagnosaurus* are also available as individual apps for your smartphone or tablet and can be found in the Apple App Store and Google Play.

SPECIAL RECOGNITION

After preparing his annual contribution for this 2019 edition of *CMDT*, Dr. Paul Riordan-Eva announced his retirement from the book. Dr. Riordan-Eva has contributed each year to *CMDT* for 30 years (since 1989). In addition, he has contributed to *Vaughan & Asbury's General Ophthalmology* since 1989 and has been its senior editor since 2004.

Dr. Riordan-Eva has had a distinguished career in ophthalmology. He studied at Cambridge University and St. Thomas Hospital Medical School, London. He then pursued his ophthalmology training in London, followed by a Fellowship at the Proctor Foundation in San Francisco. Dr. Riordan-Eva's first consultant appointment in 1995 was as Consultant Neuro-Ophthalmologist at Moorfields Eye Hospital and the National Hospital for Neurology and Neurosurgery. His work there was combined with Consultant Clinical Scientist at the Medical Research Council Human Movement and Balance Unit, researching brainstem control of eye movements. In 1999, Dr. Riordan-Eva moved to King's College Hospital, London, to set up the neuro-ophthalmology service in the regional neurosciences center. His publications include 46 peer-reviewed original papers and 13 reviews. Dr. Riordan-Eva retired from clinical practice in 2017. Currently, he is the Chairman of the Medical Defence Union, the leading medical indemnity provider in the United Kingdom.

On behalf of our readers and the entire staff at McGraw-Hill Education, we send our warmest congratulations to Paul for his retirement. As his editors, we offer our heartfelt gratitude for his 30 years of contribution to *CMDT*. We will sorely miss working with him each year. Felicitations, Paul!



ACKNOWLEDGMENTS

We wish to thank our associate authors for participating once again in the annual updating of this important book. We are especially grateful to Natalie J.M. Dailey Garnes, MD, MPH, C. Diana Nicoll, MD, PhD, MPA, and Suzanne Watnick, MD, who are leaving *CMDT* this year. We have all benefited from their clinical wisdom and commitment.

Many students and physicians also 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' e-mail addresses are below and author e-mail addresses are included in the Authors section.

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From inability to let well alone; from too much zeal for the new and contempt for what is old; from putting knowledge before wisdom, 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

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