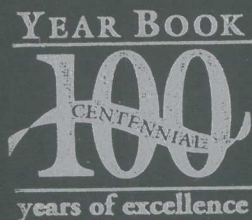


YEAR BOOK®

YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE®

2001



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2001

The Year Book of PATHOLOGY AND LABORATORY MEDICINE®

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YEAR BOOK OF PATHOLOGY
AND LABORATORY
MEDICINE®

Statement of Purpose

The YEAR BOOK Series

The YEAR BOOK series was devised in 1901 by health professionals who observed that the literature of medicine and related disciplines had become so voluminous that no one individual could read and place in perspective every potential advance in a major specialty. That has never been more true than it is today.

More than merely a series of books, YEAR BOOK volumes are the tangible results of a unique service designed to accomplish the following:

- to *survey* a wide range of journals
- to *select* from those journals papers representing significant advances and statements of important clinical principles
- to provide *abstracts* of those articles that are readable, convenient summaries of their key points
- to provide *informed commentary* about their relevance

These publications grow out of a unique process that draws on the talents of outstanding authorities in clinical and fundamental disciplines, trained literature specialists, and professional writers—all supported by the resources of Mosby, the world's preeminent publisher for the health professions.

The Literature Base

Mosby and its editors survey approximately 500 journals published worldwide, covering the full range of the health professions. On an annual basis, the publisher examines usage patterns and polls its expert authorities to add new journals to the literature base and to delete journals that are no longer useful as potential YEAR BOOK sources.

The Literature Survey

More than 250,000 peer-reviewed articles per year are scanned systematically—including title, text, illustrations, tables, and references—by the publisher's team of literature specialists. Each scan is compared, article by article, to the search strategies that the publisher has developed in consultation with the nearly 200 outside experts who form the pool of YEAR BOOK editors. A given article with broad scientific or clinical implications may be reviewed by any number of YEAR BOOK editors, from one to a dozen or more, regardless of the discipline for which the paper was originally published. In turn, each editor who receives the article reviews it to determine whether it should be included in his or her volume. This decision is based on the article's inherent quality, its relevance to readers of that YEAR BOOK, and the editor's goal to represent a comprehensive picture of a given field in each volume of the YEAR BOOK. In addition, the editor indicates when to include figures and tables from the article to help the YEAR BOOK reader better understand the information.

Of the quarter million articles scanned each year, only 5% are selected for publication within the YEAR BOOK series, thereby assuring readers of the high value of every selection.

The Abstract

The publisher's abstracting staff is headed by a seasoned medical editing professional and includes individuals with extensive experience in writing for the health professions. When an article is selected for inclusion in a YEAR BOOK, it is assigned to a member of the abstracting staff. The abstractor, guided in many cases by notations supplied by the physician editor, writes a structured, condensed summary designed to rapidly communicate to the reader the essential information contained in the article.

The Commentary

The YEAR BOOK editorial boards, sometimes assisted by guest contributors, write comments that place each article in perspective. This provides the reader with insights from authorities in each discipline that point out the value of the article and that often reflect the authority's thought processes in assessing the article.

Additional Editorial Features

The editorial boards of each YEAR BOOK organize the abstracts and comments to provide a logical and satisfying sequence of information. To enhance the organization, editors also provide introductions to sections or individual chapters, comments linking a number of abstracts, citations to additional literature, and other features.

The published YEAR BOOK contains enhanced bibliographic citations for each selected article, including extended listings of multiple authors and identification of author affiliations. Each YEAR BOOK contains a Table of Contents specific to that year's volume. From year to year, the Table of Contents for a given YEAR BOOK may vary, depending on developments within the field.

Every YEAR BOOK contains a list of the journals from which articles have been selected. This list represents a subset of approximately 500 journals surveyed by the publisher and occasionally reflects a particularly pertinent article from a journal that is not surveyed routinely.

Finally, each volume contains a comprehensive subject index and an index to authors of each selected article.

The 2001 Year Book Series

Year Book of Allergy, Asthma, and Clinical Immunology™: Drs Rosenwasser, Boguniewicz, Milgrom, Routes, and Spahn

Year Book of Anesthesiology and Pain Management™: Drs Tinker, Abram, Chestnut, Roizen, Rothenberg, and Wood

Year Book of Cardiology®: Drs Schlant, Collins, Gersh, Graham, Kaplan, and Waldo

Year Book of Chiropractic®: Dr Lawrence

Year Book of Critical Care Medicine®: Drs Parrillo, Dellinger, Balk, Calvin, Franklin, and Shapiro

Year Book of Dentistry®: Drs Zakariasen, Boghosian, Dederich, Hatcher, Horswell, and McIntyre

Year Book of Dermatology and Dermatologic Surgery™: Drs Thiers and Lang

Year Book of Diagnostic Radiology®: Drs Osborn, Birdwell, Dalinka, Groskin, Maynard, Oestreich, Pentecost, Ros, and Smirniotopoulos

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Year Book of Family Practice®: Drs Bowman, Dexter, Gilchrist, Morrison, Neill, and Scherger

Year Book of Gastroenterology™: Drs Lichtenstein, Dempsey, Ginsberg, Katzka, Kochman, Morris, Nunes, Rosato, and Stein

Year Book of Hand Surgery®: Drs Berger and Ladd

Year Book of Medicine®: Drs Barkin, Frishman, Jett, Klahr, Loehrer, Malawista, Mandell, and Mazzaferri

Year Book of Neonatal and Perinatal Medicine®: Drs Fanaroff, Maisels, and Stevenson

Year Book of Neurology and Neurosurgery®: Drs Gibbs and Verma

Year Book of Nuclear Medicine®: Drs Gottschalk, Blafox, Coleman, Strauss, and Zubal

Year Book of Obstetrics, Gynecology, and Women's Health®: Drs Mishell, Kirschbaum, and Miller

Year Book of Oncology®: Drs Loehrer, Eisenberg, Glatstein, Gordon, Johnson, Pratt, and Thigpen

Year Book of Ophthalmology®: Drs Wilson, Cohen, Eagle, Grossman, Laibson, Maguire, Nelson, Penne, Rapuano, Sergott, Shields, Spaeth, Steinmann, Tipperman, Ms Gosfield, and Ms Salmon

Year Book of Orthopedics®: Drs Morrey, Beauchamp, Currier, Peterson, Swiontkowski, and Trigg

Year Book of Otolaryngology-Head and Neck Surgery®: Drs Paparella, Holt, and Otto

Year Book of Pathology and Laboratory Medicine®: Drs Raab, Bissell, Dabbs, Silverman, and Stanley

Year Book of Pediatrics®: Dr Stockman

Year Book of Plastic, Reconstructive, and Aesthetic Surgery®: Drs Miller, Bartlett, Garner, McKinney, Ruberg, Salisbury, and Smith

Year Book of Psychiatry and Applied Mental Health®: Drs Talbott, Ballenger, Eells, Frances, Jensen, Meltzer, Simpson, and Tasman

Year Book of Pulmonary Disease®: Drs Jett, Castro, Maurer, Peters, Phillips, and Ryu

Year Book of Rheumatology, Arthritis, and Musculoskeletal Disease™: Drs Panush, Hadler, Hellmann, Lahita, Lane, and LeRoy

Year Book of Sports Medicine®: Drs Shephard, Alexander, Kohrt, Nieman, Torg, and Mr George

Year Book of Surgery®: Drs Copeland, Bland, Cerfolio, Deitch, Eberlein, Howard, Luce, Seeger, and Souba

Year Book of Urology®: Drs Andriole and Coplen

Year Book of Vascular Surgery®: Dr Porter

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Journals Represented

Mosby and its editors survey approximately 500 journals for its abstract and commentary publications. From these journals, the editors select the articles to be abstracted. Journals represented in this YEAR BOOK are listed below.

Acta Cytologica
American Journal of Cardiology
American Journal of Clinical Pathology
American Journal of Dermatopathology
American Journal of Human Genetics
American Journal of Infection Control
American Journal of Kidney Diseases
American Journal of Medicine
American Journal of Obstetrics and Gynecology
American Journal of Pathology
American Journal of Roentgenology
American Journal of Surgery
American Journal of Surgical Pathology
American Surgeon
Annals of Internal Medicine
Annals of Otolaryngology, Rhinology and Laryngology
Archives of Dermatology
Archives of Pathology and Laboratory Medicine
Archives of Surgery
Arthritis and Rheumatism
Blood
Breast Journal
Canadian Medical Association Journal
Cancer
Cardiovascular Pathology
Clinical Chemistry
Dermatology
Diagnostic Cytopathology
European Respiratory Journal
European Urology
Gastroenterology
Gynecologic Oncology
Head and Neck
Human Pathology
Injury
International Journal of Cancer
International Journal of Gynecological Pathology
Journal of Bone and Joint Surgery (American Volume)
Journal of Bone and Mineral Research
Journal of Clinical Endocrinology and Metabolism
Journal of Clinical Microbiology
Journal of Clinical Pathology
Journal of Computer Assisted Tomography
Journal of Cutaneous Pathology
Journal of Emergency Medicine
Journal of Gerontology C
Journal of Laboratory and Clinical Medicine

Journal of Maternal-Fetal Medicine
Journal of Neurosurgery
Journal of Pathology
Journal of Reproductive Medicine
Journal of Rheumatology
Journal of Surgical Oncology
Journal of the American Academy of Dermatology
Journal of the American Board of Family Practice
Journal of the American College of Surgeons
Journal of the American Medical Association
Journal of the National Cancer Institute
Journal of Urology
Kidney International
Mayo Clinic Proceedings
Modern Pathology
Nature
Nephrology, Dialysis, Transplantation
Neurology
Neurosurgery
New England Journal of Medicine
Obstetrics and Gynecology
Oral Oncology
Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology Endodontics
Otolaryngology-Head and Neck Surgery
Pharmacotherapy
Surgery
The Laryngoscope Journal
Transfusion
Urology

STANDARD ABBREVIATIONS

The following terms are abbreviated in this edition: acquired immunodeficiency syndrome (AIDS), cardiopulmonary resuscitation (CPR), central nervous system (CNS), cerebrospinal fluid (CSF), computed tomography (CT), deoxyribonucleic acid (DNA), electrocardiography (ECG), health maintenance organization (HMO), human immunodeficiency virus (HIV), intensive care unit (ICU), intramuscular (IM), intravenous (IV), magnetic resonance (MR) imaging (MRI), ribonucleic acid (RNA), ultrasound (US), and ultraviolet (UV).

NOTE

The YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE is a literature survey service providing abstracts of articles published in the professional literature. Every effort is made to assure the accuracy of the information presented in these pages. Neither the editors nor the publisher of the YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE can be responsible for errors in the original materials. The editors' comments are their own opinions. Mention of specific products within this publication does not constitute endorsement.

To facilitate the use of the YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE as a reference tool, all illustrations and tables included in this publication are now identified as they appear in the original article. This change is meant to

help the reader recognize that any illustration or table appearing in the YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE may be only one of many in the original article. For this reason, figure and table numbers will often appear to be out of sequence within the YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE.

Publisher's Preface

The publication of the 2001 YEAR BOOK series marks the 100th anniversary of the original Practical Medicine Series of Year Books. To commemorate this milestone, each 2001 Year Book includes an anniversary seal on the cover. The content and format of the Year Books remain unchanged from the beginning of the last century—each volume consists of abstracts of the best scholarly articles of the year, accompanied by expert critical commentaries.

The first Year Book appeared in 1900 when Gustavus P. Head, MD, produced the first *Year Book of the Nose, Throat and Ear*, a volume consisting of highlights from the previous year's best literature, enhanced by expert observations. Dr Head assembled a small group of distinguished physicians to serve as editors, and the first series of Year Books was published in 1901. The first volumes of the Year Book series—*General Medicine*, *General Surgery*, *The Eye*, *Gynecology*, *Obstetrics*, *Materia Medica and Therapeutics*, *Pediatrics*, *Physiology*, and *Skin and Venereal Diseases*—appeared at monthly intervals, with 10 volumes published in 1 year. The entire series was met with critical enthusiasm.

In 1904, Dr Head's brother, Cloyd, assumed responsibility for the management of the Year Books. In 1905, the volumes began to appear at regular intervals during the calendar year instead of on a monthly basis. By World War I, the Year Books had been established as an authority on medical and surgical progress.

The postwar period brought about a significant change in the practice of medicine: specialization. To accommodate the rise of specialization in medicine, the Year Books were now sold as individual volumes rather than only as a complete set. This change brought about a tremendous response and sales of the books increased. In 1922, the Year Books became even more specialized, as the books now had different editors for the different medical specialties covered in each volume. Later, in 1933, the title of the series changed from the Practical Medicine Series of Year Books to the Practical Medicine Year Books to reflect these new designs.

The Year Books have grown significantly from the first 10-volume series in 1901 to a diversified series of 32 volumes in 2001. That the Year Book series is the only series of their kind to have survived is a testament to the vision and commitment of its founders. Some minor changes in format and design have occurred throughout the years, but the mission of the Year Book series—to provide a record of exceptional medical achievements distinguished by the reflections of many of the great names in medicine today—has remained constant.

Introduction

Welcome to the 2001 YEAR BOOK OF PATHOLOGY AND LABORATORY MEDICINE! This is the fourth year I have had the privilege of serving as the Editor-in-Chief, and I think this is one of the best YEAR BOOKS we have put together during my tenure. If you have been a reader since 1998, you will note that there has been a considerable changeover in the editorial staff. I think this adds a certain freshness because of the different points of view these editors provide.

Dr Michael Stanley has been part of the editorial team since 1998, and he is truly one of the most insightful, gifted, and, at times, humorous writers in pathology today. Check out his chapters on the head and neck, and the breast, and the female genital tract.

Dr Jan Silverman has worked on the YEAR BOOK for 2 years, and his commentaries reflect his expertise in dealing with the gastrointestinal tract, the hepatobiliary system and pancreas, and bone and soft tissue. His writing has a unique crispness and accuracy. This marks the last year that Dr David Dabbs will be writing for the YEAR BOOK, and he surely will be missed. For those of you who do not know, Dr Dabbs is an expert in medical renal pathology, and for this book he also provides insight regarding the urinary bladder and male genitourinary tract.

Dr Michael Bissell, an international expert on clinical laboratory outcomes analysis, joins us with this edition and has undertaken the herculean task of commenting on all of the articles in the Laboratory Medicine section! His writing is superb.

The assistant editors this year include Dr Dana Grzybicki (neuropathology and techniques), Dr Charles Sturgis (cardiovascular system and cytopathology), Dr William Finn (hematopathology), and Dr Klaus Helm (dermatopathology). These pathologists are accomplished specialists, and they all tackle their appropriate subjects with aplomb and proficiency.

I also want to thank the wonderful Mosby staff—especially Ms Colleen Cook, who makes working on the YEAR BOOK a pleasure instead of just another a task.

Stephen S. Raab
Editor-in-Chief

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PART I
ANATOMICAL PATHOLOGY

