

GEORGE J. HILL, II, M.D.

Outpatient Surgery

SECOND EDITION

GEORGE J. HILL, II, M.D.

*Professor and Chairman,
Department of Surgery,
Marshall University School of Medicine,
Huntington, West Virginia*

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Contributors

MENELAOS A. ALIAPOULIOS, M.D. Professor of Surgery, University of Massachusetts Medical School. Chief of Surgery, St. Vincent Hospital, Worcester, Massachusetts. Surgeon, Peter Bent Brigham Hospital, New England Baptist Hospital, and New England Deaconess Hospital, Boston, Massachusetts.

Metabolism and Endocrinology

MALCOLM DENNIS BARTON, M.D. Associate Professor of Anesthesiology (Clinical), University of Colorado School of Medicine, Denver, Colorado. Attending Anesthesiologist, Presbyterian Medical Centers, Aurora and Denver, Colorado.

Anesthesia for Outpatients; The Unconscious Patient

ROBERT W. BEART, JR., M.D. Consultant in Surgery, Mayo Medical School, Rochester, Minnesota. Attending Staff, Methodist Hospital and St. Mary's Hospital, Minneapolis, Minnesota.

Outpatient and Short Stay Fiberoptic Endoscopy

RICHARD A. BLATH, M.D. Attending Staff, St. Luke's Hospitals, DePaul Hospital, Christian Hospital Northeast, St. Louis, Missouri, and Christian Hospital Northwest, Florissant, Missouri.

Urology

PAUL W. BROWN, M.D. Clinical Professor of Surgery (Orthopaedics), Yale University School of Medicine, New Haven, Connecticut. Chairman, Department of Surgery, St. Vincent's Medical Center, Bridgeport, Connecticut. Consultant in Hand Surgery, Veterans' Administration Hospital, West Haven, Connecticut.

The Hand

JOHN D. BURRINGTON, M.S., M.D. Clinical Professor of Surgery, University of Colorado School of Medicine. Director of Surgical Education, Children's Hospital, Denver, Colorado.

Pediatric Surgery

JAMES R. CERASOLI, M.D. Associate Clinical Professor of Ophthalmology, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, Porter Memorial Hospital, Denver, Colorado, and Swedish Medical Center, Englewood, Colorado.

The Eye

BEN EISEMAN, M.D. Professor of Surgery, University of Colorado School of Medicine. Director of Surgery, Rose Medical Center; Attending Staff, Colorado General Hospital, Denver General Hospital, Fitzsimons Army Medical Center, and Veterans' Administration Hospital, Denver, Colorado.

Surgery and Medicine in the Field

GERALD M. ENGLISH, M.D. Clinical Associate Professor of Otolaryngology, University of Colorado Medical Center. Attending Staff, Porter Memorial Hospital, Veterans' Administration Hospital, General Rose Memorial Hospital, National Jewish Hospital, St. Luke's Hospital, St. Anthony Hospital, Presbyterian Medical Center, Fitzsimons Army Medical Center, Denver, Colorado; Swedish Medical Center, Englewood, Colorado; and Lutheran Hospital, Wheat Ridge, Colorado.

Ear, Nose, Throat and Sinuses

WILLIAM R. FAIR, M.D. Professor of Surgery and Chairman of Department of Urology, Washington University School of Medicine. Attending Staff, Barnes Hospital, St. Louis, Missouri.

Urology

JOHN QUITER GALLAGHER, M.D. Associate Clinical Professor of Surgery, University of Colorado Medical Center. Attending Surgeon, Presbyterian Hospital and St. Joseph Hospital, Denver, Colorado.

The Breast

JOHN D. HARRAH, M.D. Associate Professor of Surgery, Marshall University School of Medicine. Attending Thoracic and Cardiovascular Surgeon, St. Mary's Hospital, Cabell Huntington Hospital, and Veterans' Hospital, Huntington, West Virginia.

Organization and Functions of Emergency Department, Outpatient Clinic and Office Practice

LELAND GREENE HAWKINS, M.D. Head of Medical Education Committee, St. Luke's Methodist Hospital and Mercy Hospital, Cedar Rapids, Iowa. Practicing Orthopedic Surgeon.

Musculoskeletal System: Fractures and Dislocations

JOHN A. HIGGINS, M.D. Consultant in Gastroenterology, Mayo Clinic; Associate Professor in Internal Medicine, Mayo Medical School, Rochester, Minnesota. Attending Staff, Methodist Hospital and St. Mary's Hospital, Minneapolis, Minnesota.

Outpatient and Short Stay Fiberoptic Endoscopy

GEORGE JAMES HILL, II, M.D. Professor and Chairman, Department of Surgery, Marshall University School of Medicine. Chief of Surgery, Family Care Outpatient Center; Staff Surgeon, Veterans' Administration Hospital; Active Surgical Staff, Cabell Huntington Hospital and St. Mary's Hospital; Consultant, Huntington (State) Hospital, Huntington, West Virginia. Courtesy Surgical Staff, Appalachian Regional Hospital; Honorary Surgical Staff, Raleigh General Hospital, Beckley, West Virginia.

Organization and Functions of Emergency Department, Outpatient Clinic and Office Practice; Metabolism and Endocrinology; The Abdomen and Gastrointestinal Tract; Cancer Chemotherapy

PETER JOKL, M.D. Director of Athletic Medicine and Associate Professor of Surgery (Orthopaedic), Yale University School of Medicine, New Haven, Connecticut.

Orthopaedics

JAMES R. JONES, M.D. Professor and Chairman, Department of Obstetrics and Gynecology, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, Piscataway, New Jersey. Senior Attending Staff, Middlesex General Hospital, New Brunswick, New Jersey.

Female Genitourinary Tract and Obstetrics

EKKEHARD KEMMANN, M.D. Assistant Professor, Department of Obstetrics and Gynecology, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, Piscataway, New Jersey. Attending Staff, Middlesex General Hospital, New Brunswick, New Jersey.

Female Genitourinary Tract and Obstetrics

ROBERT R. LARSEN, M.D. Assistant Clinical Professor of Surgery, University of Colorado School of Medicine, Denver, Colorado. Chief of Surgery, Brighton Community Hospital, Brighton, Colorado.

Outpatient Surgery in Developing Countries

YEU-TSU N. (MARGARET) LEE, M.D. Associate Professor of Surgery, University of Southern California School of Medicine. Head Physician, Tumor Surgery Service, Los Angeles County-USC Medical Center, Los Angeles, California.

Tumors

MALCOLM A. LESAVOY, M.D. Assistant Professor of Surgery, Division of Plastic Surgery, UCLA School of Medicine, Los Angeles, California. Chief of Plastic and Reconstructive Surgery, Harbor General Hospital, Torrance, California.

The Integument

ANDREW M. MUNSTER, M.D., F.R.C.S. (Eng. and Ed.) Associate Professor of Surgery, The Johns Hopkins University School of Medicine. Director, Baltimore Regional Burn Center; Attending Surgeon, Johns Hopkins Hospital, Baltimore City Hospitals, and Loch Raven Veterans' Administration Hospital, Baltimore, Maryland.

Infections

MELVIN M. NEWMAN, M.D. Associate Professor, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, Denver, Colorado.

The Heart and Lungs—Thorax: Lungs and Esophagus

LAWRENCE W. NORTON, M.D. Professor of Surgery, University of Arizona College of Medicine. Associate Head, Department of Surgery, and Chief of General Surgery, University of Arizona Health Sciences Center, Tucson, Arizona.

Trauma

THOMAS R. O'DONOVAN, Ph.D. Administrator, Mount Carmel Mercy Hospital, Detroit, Michigan.

Recent Developments in Ambulatory Surgery

- J. CUTHBERT OWENS, M.D. Professor of Surgery, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, General Rose Memorial Hospital, Denver General Hospital, and Veterans' Administration Hospital, Denver, Colorado.

Peripheral Blood Vessels

- BRUCE C. PATON, M.R.C.P. (Ed.), F.R.C.S. (Ed.) Professor of Surgery, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, Denver General Hospital, Children's Hospital, Veterans' Administration Hospital, and Fitzsimons Army General Hospital, Denver, Colorado.

The Heart and Lungs—Heart and Great Vessels; Surgery and Medicine in the Field

- ISRAEL PENN, M.D., F.R.C.S. (Eng.), F.R.C.S. (Can.) Professor of Surgery, University of Colorado Medical Center. Chief of Surgery, Veterans' Administration Hospital; Attending Surgeon, Colorado General Hospital, Children's Hospital, and Rose Medical Center, Denver, Colorado.

Transplantation

- WILLIAM ROBERT ROSS, D.P.M. Chief of Podiatry Clinics, Denver General Hospital. Surgical Staff, Highland Medical Center; Consultant, Porter Memorial Hospital, Denver, Colorado, and Swedish Medical Center, Englewood, Colorado.

The Foot

- ROBERT BARRY RUTHERFORD, M.D. Professor of Surgery, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, Veterans' Administration Hospital, and Denver General Hospital, Denver, Colorado.

Organization and Functions of Emergency Department, Outpatient Clinic and Office Practice; Peripheral Blood Vessels

- JOHN EDWARD LAWSON SALES, M.A., M.Chir., F.R.C.S. (Eng.) Consultant Surgeon, Hillingdon Hospital, Oxbridge, and Mount Vernon Hospital, Northwood, Middlesex, England.

Anus and Rectum

- NANCY S. SCHER, M.D. Assistant Professor of Medicine, Marshall University School of Medicine. Attending Staff, Veterans' Administration Medical Center; Associate Staff, St. Mary's Hospital and Cabell Huntington Hospital, Huntington, West Virginia.

Cancer Chemotherapy

- ALEX M. STONE, M.D. Associate Professor of Clinical Surgery, State University of New York at Stony Brook, Health Sciences Center School of Medicine. Staff Surgeon, Long Island Jewish-Hillside Medical Center, New Hyde Park, New York.

The Abdomen and Gastrointestinal Tract

- R. C. A. WEATHERLEY-WHITE, M.D. Associate Clinical Professor of Surgery (Plastic), University of Colorado School of Medicine, Denver, Colorado.

The Integument

PHILIP R. WEINSTEIN, M.D. Associate Professor, University of Arizona College of Medicine. Chief of Neurosurgery, Veterans' Administration Hospital; Attending Staff, University of Arizona Hospital, Tucson, Arizona.

The Skull and Nervous System

AUGUSTUS A. WHITE, III, M.D., D. Med. Sci. Professor of Orthopaedic Surgery, Harvard Medical School. Orthopaedic Surgeon-in-Chief, Beth Israel Hospital, Boston, Massachusetts.

Orthopaedics

CHARLES B. WILSON, M.D. Professor and Chairman, Department of Neurological Surgery, University of California (San Francisco) School of Medicine, San Francisco, California.

The Skull and Nervous System

LESLIE WISE, M.D. Professor of Surgery, State University of New York at Stony Brook, Health Sciences Center School of Medicine, Stony Brook, New York. Chairman, Department of Surgery, Long Island Jewish-Hillside Medical Center, New Hyde Park, New York.

The Abdomen and Gastrointestinal Tract

DAVID S. WOLF, D.P.M. Podiatric Medical Staff, Highland Medical Center, Denver, Colorado.

The Foot

Preface

The weary, frightened faces crowded together in the waiting rooms of large hospitals and busy offices are a constant reminder that our methods are imperfect and we must labor to improve them. This book was prepared to assist in the delivery of more effective, efficient care to all who appear at the doors of our medical facilities—to help surgeons and their assistants select, treat and release those patients who can be managed in the context of the Outpatient Department. Anyone who has heard the commotion, smelled the fear and anger, and seen the turmoil of the Outpatient Department will appreciate the need for better service in this area. It is to this end the authors have worked to prepare a guide for outpatient surgery.

GEORGE J. HILL

Huntington, West Virginia 25701

Acknowledgments

Preparation of this edition of *Outpatient Surgery* has been greatly helped by the many readers who have written to or spoken with us to offer suggestions and comments on the first edition and by those who reviewed the first edition for various journals.

I am especially grateful for comments offered by the students, surgical house staff and nurses at the University of Colorado, Washington University, and Marshall University and by the surgical staff of Colorado General Hospital, Barnes Hospital, St. Louis City Hospital, the Marshall University affiliated hospitals, and the Family Care Outpatient Center. The observations by scores of other surgeons, young and old, have helped us in the preparation of the present edition, including those in several U.S. Naval Hospitals and dispensaries, the University of Saigon's affiliated hospitals, and my colleagues in the Central Oncology Group and the Southeastern Cancer Study Group. I have been given courteous and helpful tours of many outpatient facilities and ambulatory surgical units during the past six years, too numerous to cite individually here, including many university hospitals, private hospitals and surgeons' offices. A substantial improvement in outpatient service is occurring, and I appreciate the opportunities I have been given to see the new facilities and new methods that are being used.

Encouragement to continue this work has come from my academic supervisors: Drs. William R. Waddell, Thomas E. Starzl, Walter F. Ballinger and Robert W. Coon. I was also encouraged by my family, including my patient wife, Lanie, my children—to whom this edition is dedicated—and my parents, who taught me to read and write well enough to have my work published. My father died as this edition was going to press, but he watched the work progress with a proud yet critical eye.

I am particularly indebted to the warm, enthusiastic and accurate advice I have received for nearly a decade from Mr. John Hanley, now Vice President and Publisher of the W. B. Saunders Company. Jack and I first became acquainted when he was assigned as an associate medical editor to the development of the first edition. His suggestions played a major role in every phase of development of

both editions, plus our foreign editions and the Spanish translation. Many others from the W. B. Saunders Company have helped with the second edition or both editions, particularly Janis Moore, Lorraine Battista, Herb Powell and Andrew J. Piernock, Jr. This group is Jack Hanley's team, and I am most grateful to him for bringing their efforts together for us. The work of Mrs. Dorothy Irwin, the artist for the first edition, continues to be the main body of illustration for the second edition, and we appreciate her ability to clarify our language with her brush and pen.

The burden of secretarial work in my office for this edition has been carried with care and accuracy by Mrs. Carole Mathi, Mrs. Barbara White and Ms. Catherine Tyson.

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Introduction to the Second Edition

Outpatient surgery has grown remarkably in scope and volume in the six years since publication of the first edition of this book. Various new terms have come into use to describe surgical treatment given in the office and in free-standing ambulatory surgical centers. These include phrases such as "short stay surgery," "ambulant surgery," "day care surgery," and "overnight surgery." This type of surgery is now being performed in major medical centers, utilizing the main operating rooms in some cases, with patients being sent home from the recovery room.

The major factor underlying all of these changes is the simplicity of outpatient surgery compared with the traditional inpatient approach. The simplicity of outpatient surgery allows lower cost and increased satisfaction for physicians and patients alike. A detailed cost analysis and a description of the present spectrum of procedures performed in ambulatory surgical centers is presented in our new Chapter 1. The movement toward outpatient surgery has been greatly helped by the participation of anesthesiologists, for most of the surgery performed in free-standing or hospital-based outpatient surgical centers is now done using light general anesthesia or heavy sedation. Safe observation and recovery have been assisted by anesthesiologists, who provide continuity in the units' operation, allowing the surgeons to arrive shortly before the procedure is scheduled to begin and to leave when the operation is over. Careful preparation of the patient and accompanying persons and a well-trained staff of nurses have made outpatient surgery safe and reliable. Cooperation by third party payers has helped facilitate the growth of outpatient surgery. The insurance carriers were slow initially to accept outpatient surgery because of pressure from hospitals and concern that unnecessary procedures would occur in the outpatient setting. These fears have not been substantiated, and the cost of operations for outpatients is actually far less than that for the same procedures performed on inpatients. The subject of the indications for outpatient surgery still remains an important one,¹ how-

ever. One of the features of the new accreditation system proposed for ambulatory health care facilities is a peer-review audit system, including a tissue committee, like those found in accredited hospitals.

As in the first edition, we have included in this book a description of surgical procedures and nonoperative aspects of surgical practice in the Outpatient Department, the Emergency Room and the surgeon's office. We have also included a description of some related topics, such as field medicine and surgery, when these topics are a part of the nonhospital practice of many surgeons and utilize procedures that are a part of standard outpatient practice. We have narrowed the scope of our definition of outpatient surgery to some extent, following the practice that has evolved in the past six years; we now define it as surgery that does not usually require hospitalization for more than 24 hours. Most of these procedures can be performed on patients who arrive and leave the office or outpatient surgical center on the same day. Some centers use overnight hospitalization preceding an early morning procedure, while in other cases an overnight period of postoperative rest and observation is considered to be desirable.

The rise in outpatient surgery has been reflected by a growth in the literature on this subject. Three or four articles appear monthly, and the National Library of Medicine's MEDLINE computer will provide the interested reader with a current list of articles on this subject. Topics range from the psychological and nursing aspects of ambulatory surgery to economic considerations, specific techniques and procedures, complications, and research topics. Several major publications on this subject have also appeared since our first edition was published, including the fifth edition of *Ferguson's Surgery of the Ambulatory Patient*,² the monthly commentaries published in *Same Day Surgery*,³ two DHEW publications,^{4,5} and a collection of important papers on this subject edited by O'Donovan.⁶ Important legislation is also pending on the subject of ambulatory surgery.⁷

We hope the reader will find the present work to be as useful as the first edition of *Outpatient Surgery* and as helpful in practice as the eight editions of *Christopher's Minor Surgery* that preceded it.

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Introduction to the First Edition

C'est par l'étude de La Petite Chirurgie que le chirurgien commence son apprentissage.

— MAISONNET

I think that there ought to be a book in the hands of the pupil to direct him in his studies . . . in which the lessons he has detailed to him at length by his teachers may be found more shortly expressed . . . to which, as a surgeon, he can turn for the detail of what is necessary to be done in preparing for an operation . . .

Every surgeon . . . ought to bring his judgment maturely to bear on all the points of the case; the objects to be attained; the dangers to be expected; the resources which he ought to have in readiness against probable mischance . . .

By anticipating he may avoid embarrassment, maintain his self-possession undisturbed, and save himself from the distraction of consultation and whispering.

SIR CHARLES BELL (1774–1842), *Professor of Surgery, University of Edinburgh* ("Bell's palsy")

This book was written to help young surgeons, interns and medical students in their work outside of the regular inpatient hospital wards. The major theme is the diagnosis and treatment of surgical patients in the Outpatient Clinic, Emergency Room and overnight ward.

We wish to encourage outpatient care whenever it can be done safely, for the economic burden is thereby reduced, the anxiety of the patient alleviated, and the danger of hospital-acquired sepsis is in part relieved.

Outpatient care is frequently delegated to junior house staff with relatively little supervision. A large patient load is thrust upon the young surgeon, and he has responsibility to make prompt and accurate decisions. The patient desires economy, speed, accuracy and sympathy. Since many outpatient procedures must be done under local anesthesia, awareness of the patient's pain and anxiety is essential for success.

Mixed in with routine or relatively minor problems, sudden emergencies may appear which require an entirely different magnitude of treatment. Usually these patients will soon be trans-

ferred to inpatient status, but responsibility for them is initially that of the outpatient surgeon. Guidelines for management of major surgical emergencies are therefore included as an integral part of this text.

Relatively minor complaints may be the hallmark of a serious impending crisis. The outpatient surgeon must be alert to these possibilities.

We have included descriptions of conditions and operations which can be treated by utilizing an overnight period of observation, because many hospitals have a small overnight ward adjacent to the outpatient-emergency facility under the control of the outpatient surgical team.¹¹ Patients may therefore be operated upon in the main operating room or undergo major diagnostic procedures such as angiography as part of their stay in the Outpatient Department, since they can be placed in a regular hospital bed to recover for up to 24 hours.¹³ Many patients can be handled in this way only if they can return either to a good home or to an ambulatory care facility staffed with competent personnel. Procedures such as herniorrhaphy, sapher-

nous vein surgery, lung biopsy, and cervical cone biopsy appear in this context.

All of the procedures described in this book have been performed as described by the authors. These are procedures which can technically be performed in an Outpatient Clinic and a well-outfitted Emergency Room which is equipped for brief major operations, and in which convalescence is speedy enough to permit release from the hospital within 24 hours. Nevertheless, we recommend that good judgment be used in selecting patients for outpatient surgery. It must be remembered that the patient should always be hospitalized if there is any question regarding the advisability of performing the procedure in the office or outpatient department, or as an overnight admission to the hospital.

Outpatient Surgery incorporates many of the ideas developed for American physicians by Frederick Christopher in *Minor Surgery* (1930), based on the previous textbooks by Wharton, Foote, Maissonnet and Hertzler, and the immensely popular *Manual of Minor Surgery* by Heath which appeared in 20 editions. Christopher's textbook was a classic which was published in six editions over an 18-year period and which was carried on in two additional editions by Drs. Alton Ochsner and Michael DeBakey. Members of the Department of Surgery at the University of Colorado began to work together on a description of their work in this field in 1967. The first publication of this team effort was the volume of *Surgical Clinics of North America* entitled "Improved Techniques in Everyday Surgery" (1969), edited by Dr. Ben Eiseman. *Outpatient Surgery* is a textbook which was designed to carry forward the work which was begun by Drs. Christopher, Ochsner, DeBakey and Eiseman.

The topics presented here cover subjects which comprise most of the entire field of surgery, which we define as the healing art which utilizes physical procedures such as incision, repair and other manipulations. Thus the specialties of gynecology and obstetrics, anesthesi-

ology, podiatry, transplantation and oncology are represented, as well as the conventional categories of general surgery, trauma, cardiovascular and thoracic surgery, otolaryngology, urology, plastic surgery, pediatric surgery, orthopedics and proctology. Special chapters are presented regarding surgical considerations in areas far removed from teaching hospitals, such as developing countries and expeditions into remote areas. The latter topics are covered in this text because of the interest which many young surgeons have shown in extending their service into these very special outpatient situations. We also wish to acknowledge the fact that the procedures used in the outpatient department of American university hospitals are not necessarily the procedures which will or should be used in developing countries⁸ or remote areas.

The authors have described the conditions and treatments which constitute the majority of their own outpatient practice. In some instances, the work is primarily diagnostic, whereas in other clinics it consists in large part of minor and major operations. In every case, each author has presented his personal experience as a guide for the young men and women who plan to work in the outpatient specialty clinics and offices.

The long-term follow-up of all patients will be emphasized, since the results of inpatient care must be measured by the surgeon in his office or outpatient clinic over an extended period of time.²

It is our hope that this text may serve as a useful reference for office practice as well as for the hospital Outpatient Department. The degree to which this will be possible will obviously vary greatly with the facilities, assistance, training and skill of the physician who uses this book.

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