

Principles and Practice of
**HOSPITAL
MEDICINE**

SECOND EDITION



Principles and Practice of Hospital Medicine

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Principles and Practice of Hospital Medicine

Second Edition

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FOREWORD

I well remember reading the landmark article by Wachter and Goldman entitled “The emerging role of ‘hospitalists’ in the American health care system,” published in the *New England Journal of Medicine* in 1996.¹ In this article, the authors recognized the need for “a new breed of physicians ... specialists in inpatient medicine” and coined the term “hospitalist” to refer to this new type of physician specialist. Since then, the specialty of hospital medicine has become an increasingly popular and successful career pathway, and has expanded beyond its roots in internal medicine to other disciplines, such as pediatrics, family practice, and obstetrics. The Society of Hospital Medicine estimated there were approximately 44,000 hospitalists in the United States in 2014, and predicted that number will continue to grow.²

When hospital medicine started, the expertise of hospitalists was focused on the clinical issues surrounding care of the hospitalized patient. More recently, there has been increasing emphasis on the hospitalist’s role in designing and improving the systems of care in the hospital. These added responsibilities have necessitated an expansion of the hospitalist’s skills set beyond just a clinical knowledge base to an understanding of such topics as teamwork, transitions of care, quality metrics and improvement, and patient safety, among many others. A consequence of this proliferation of specific competencies has been the creation of an optional pathway for internal medicine hospitalists to maintain their certification with the American Board of Internal Medicine, officially referred to as Focused Practice in Hospital Medicine.

In the first edition of *Principles and Practice of Hospital Medicine*, McKean and her co-editors took on the herculean task of assembling an outstanding group of contributing authors and putting together a superb, comprehensive textbook of hospital medicine that was published in 2012. In this second edition, the editors have not only updated content but have also added a number of

important topics in both clinical and nonclinical areas, ranging from value-based medicine to transplant surgery consultation. The section on billing, coding, and clinical documentation has been greatly expanded, as has coverage of a wide host of malignancies. Because of the importance of the recovery period and transitions to a variety of settings after hospital discharge, a welcome new section on rehabilitation and skilled nursing care has also been added.

The editors and authors are to be congratulated on again having made a major contribution to the care of hospitalized patients and to those physicians, whether or not they formally identify themselves as hospitalists, who care for these patients. Given the breadth and the depth of this text, there are few questions that clinicians will not be able to answer or guidance that they will not be able to obtain about how to provide the best care for the wide spectrum of their hospitalized patients.

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PREFACE

Since its initial publication in 2012, *Principles and Practice of Hospital Medicine* has become established as a leading resource for the specialty of hospital medicine. More than 200 renowned generalists and specialists contributed to make this book comprehensive and authoritative, but as practical as possible. Clinical chapters presented questions that commonly arise in the course of practice and emphasized core concepts with well-illustrated subject matter, radiology, clinical images and quick-view decision trees. The scope of content defined most of the field of hospital medicine as it existed in 2012, and the format of the text itself was enhanced both with an online edition available through the widely used AccessMedicine.com, and an app version for use on iPad.

Since the publication of the first edition, the field of hospital medicine has continued to evolve into areas beyond evidence-based general medical care into the practice of co-management of surgical and medical subspecialties, rehabilitation medicine, and palliative care. Driven by quality improvement efforts, as well as reimbursement models such as bundled payments, the last few years have seen an increased emphasis on coordination of care between acute care hospitals and other settings, including skilled nursing facilities, rehabilitation facilities, and long-term acute care facilities. The rapid growth of the field has been accompanied by an emerging cadre of outstanding clinicians and leaders, both at the local, national, and international level, and this book is the product of their collective efforts.

The second edition of *Principles and Practice of Hospital Medicine* provides tools to address the unique set of challenges hospitalists face in a healthcare system that ought to be safer and more effective. It comprehensively covers topics not included in any other print or online textbook. For example, this edition has new sections and chapters on the value and values of hospital medicine; practical, specialty information relating to what consulting hospitalists need to know as they co-manage patients from other services; key information in rehabilitation and skilled nursing care pertinent to patient safety and quality; expanded content on the approach to the patient at the bedside and clinical conditions in the inpatient setting. Using the basic format of the first edition, all content has been updated to incorporate new medical knowledge relevant to the practice of hospital medicine.

The second edition has six major parts, covering issues of importance to hospitalists everywhere:

Part I: The Specialty of Hospital Medicine and Systems of Care. The authors of this section represent some of the most knowledgeable and forward-thinking people in the areas of value based medicine, critical decision making at the point of care, transitions of care, patient safety and quality improvement, practice management, ethics and professional development. This part emphasizes the multidisciplinary approach, teamwork, prevention of hospital-acquired complications, and patient-centered communication to ensure safe and efficient care transitions and handoffs.

Part II: Medical Consultation. This part explains the traditional role of the medical consultant and updates preoperative cardiac and pulmonary risk assessment and risk reduction. Chapters that reflect the evolving role of hospitalists in co-management of surgical patients include general principles of surgery and anesthesia, perioperative pain management, and management of common complications in noncardiac surgery. The surgical specialties section

concentrates on what the consulting hospitalist needs to know when consulting on patients undergoing bariatric surgery, neurosurgery, orthopedic surgery, transplant surgery and urologic procedures. All chapters focus on problems commonly encountered in the hospital setting, such as assessment and management of the diabetic patient, risk assessment and risk reduction for patients with end-stage liver disease, and preoperative assessment of patients with hematologic disorders.

Part III: Rehabilitation and Skilled Nursing Care. This new part, written primarily by experts in rehabilitation medicine, provides key information that hospitalists need to consider as they work to ensure safe transitions from the inpatient setting to extended care facilities. Individual chapters address rehabilitation options, physical and occupation therapy, common issues such as bowel and bladder incontinence, dysphagia, pressure ulcers, care of surgical wounds and pressure ulcers. The chapter on patient safety and quality improvement emphasizes core concepts embraced by hospitalists—the multidisciplinary approach, prevention of complications, and patient-centered communication in the transition of patients to and from the post-acute setting. The chapter on hospice focuses on common issues that clinicians need to address as they shift toward palliative care and consider the best setting for their patients.

Part IV: Approach to the Patient at the Bedside. These chapters provide detailed guidance for the initial inpatient evaluation, diagnostic testing, and management of patients with common presenting complaints that may be encountered at the time of admission or in the middle of the night. Each disorder is addressed from the perspective of hospital care, which in many cases differs significantly from initial outpatient care for the same complaint. Even experienced clinicians will find value in reviewing an initial, sometimes algorithmic, approach to common problems such as anemia, falls, delirium, dizziness and vertigo, insomnia, numbness, and weakness (how to localize the problem). Many of the chapters refer to subsequent chapters in Part VI, which covers the diagnosis and management of specific diagnoses.

Part V: Diagnostic Testing and Procedures. Efficiency of care, reduced cost, especially length of stay, coupled with high quality begins with clinical problem solving at the time of admission. This part explains how to interpret common admission tests, such as liver biochemical tests or arterial blood gas reports, and how to avoid wasteful, unnecessary medical tests and treatments. The radiology section reviews indications of radiology studies typically ordered in the hospital setting, a general approach to interpretation, patient safety issues in imaging and procedures performed by interventional radiologists. A comprehensive textbook in hospital medicine would not be complete without a section on procedures. The procedures' section provides some standardization of procedure performance, highlights indications, initial assessment, prevention of complications, and interpretation of results with links to video online resources that provide additional instruction, not possible in a text format. This section includes the core set of procedures most likely to be performed or supervised by hospitalists and acknowledges local and regional variations in the role of hospitalists performing or supervising these procedures.

Part VI: Clinical Conditions in the Inpatient Setting. Updated clinical content across the breadth of hospital medicine includes major disciplines in internal medicine such as cardiology, gastroenterology,

and infectious diseases as well as sections with special relevance to hospital medicine, such as geriatrics, palliative care, psychiatry, toxicology, and addiction. In response to the evolving role of hospitalists on oncology inpatient services, the section covering hematology and oncology has been substantially expanded.

Electronic chapters (available on AccessMedicine.com) cover hospital medicine aspects of global health and hospital medicine, the core competencies of hospital medicine, the economics of health care, principles of medical ethics, and bioterrorism.

In summary, the second edition of *Principles and Practice of Hospital Medicine* takes into account how the field and practice of

hospital medicine has evolved and the skills required of hospitalists so that they can provide exceptional patient care and clinical care leadership. We thank the American College of Physicians for its collaborative publishing arrangement with McGraw-Hill that included input into the editors, contributors, and overall scope for this new edition. Through its engagement in this book, the college advances its mission to enhance the quality and effectiveness of health care.

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SECTION 1

The Value and Values of Hospital Medicine