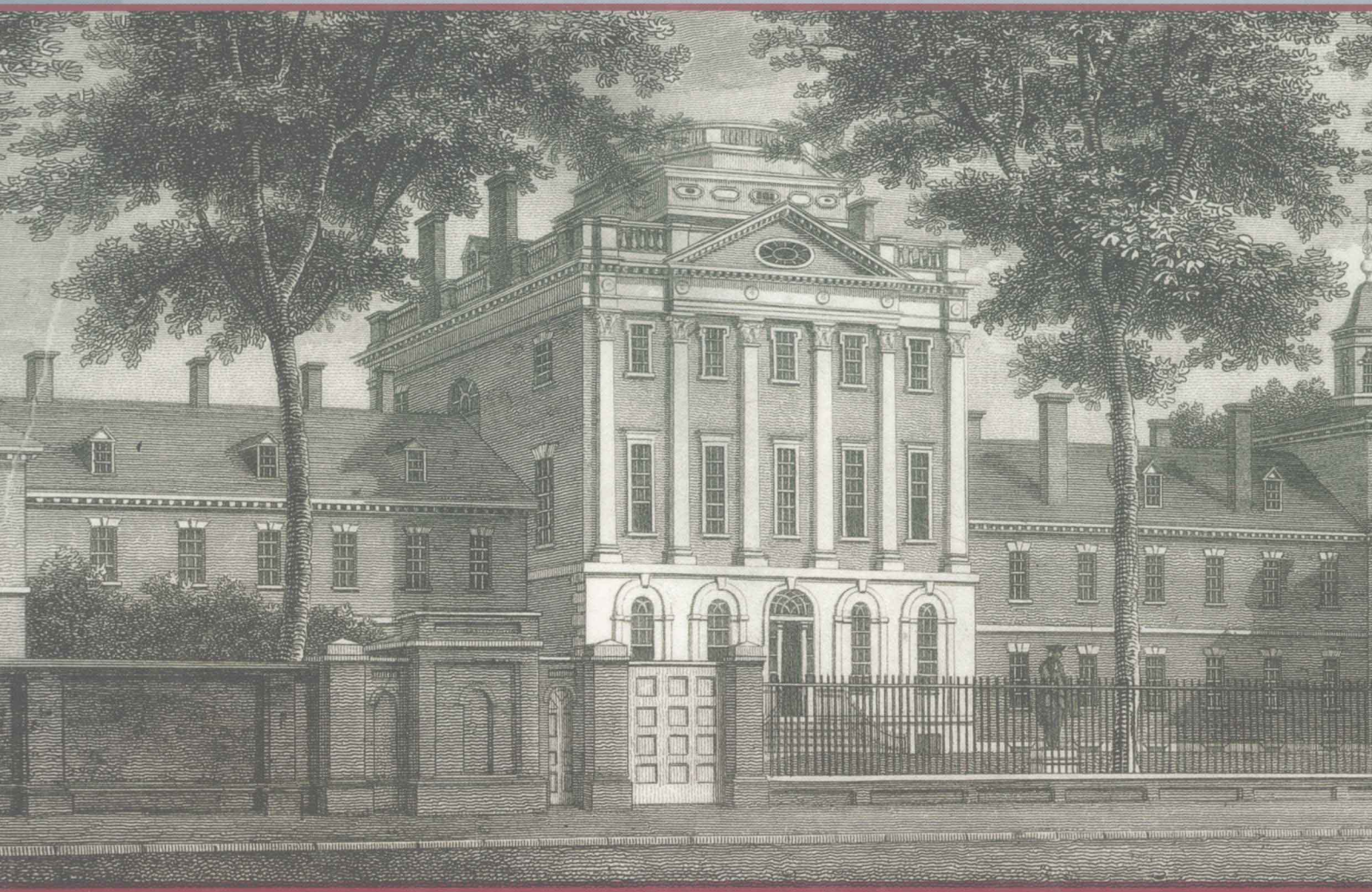
Hospital Medicine

2nd Edition

Robert M. Wachter ■ Lee Goldman ■ Harry Hollander



LIPPINCOTT WILLIAMS & WILKINS

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SECOND EDITION

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About the Cover

An engraving of the Pennsylvania Hospital ("The Building by the Bounty of Government and many Private Persons was proudly founded for the Relief of the Sick and Miserable. Anno 1755"). Artist, William Strickland; Engraver, Samuel Seymour; 1811. The Pennsylvania Hospital is the oldest hospital in the United States. Its first patient was admitted in 1752; its original mission was to care for the "sick poor" and the insane. Benjamin Franklin was co-founder of the hospital (along with Dr. Thomas Bond), and served on its first Board. Reproduced by permission of the American Philosophical Society.

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Preface to the Second Edition

It seems remarkable that a decade has passed since we first described our vision of a generalist physician specializing in hospital care: the *hospitalist* (1). Although a handful of such physicians were scattered around the United States at the time, by 2005 there were more than 10,000. Their ranks are likely to swell to more than 20,000 in the United States in the coming decade (2), and they have linked with similar physicians in Canada, South America, Europe, and even China.

Although we correctly predicted the growth of hospitalists, we (and most other observers) failed to appreciate fully the other winds that would buffet hospital care during the last 10 years. Even though capitation declined in popularity, the mandate for efficiency grew as hospitals filled to the brim, forcing many emergency departments into double duty as mini-wards. A major nursing shortage further constrained hospital capacity, while a shortage of critical care doctors generated a need in many institutions for other physicians who could provide high quality ICU care. And limits on residents' duty hours created the demand for alternative providers in teaching hospitals. All of these forces further promoted the growth of the hospitalist model (3,4).

Meanwhile, the pace of medical progress continued to accelerate. New noninvasive imaging studies and new blood tests, such as troponin, C-reactive protein, BNP, and galactomannan, reshaped our diagnostics strategies for disorders ranging from pulmonary embolism to *Aspergillus* infection. New medications, such as low-molecular-weight heparin and activated protein C, caused us to rethink our management of thrombosis and sepsis, and we also found new uses for old medications, such as spironolactone and N-acetylcysteine. Prevention, once considered the exclusive domain of ambulatory medicine and public health, emerged as a key paradigm in hospital medicine, as the virtues of prophylaxis against thromboembolism, tight glucose control, and strategies to prevent hospital-acquired infections were documented by a steady drumbeat of studies.

Even more striking was the emergence—finally!—of a genuine and sustainable quality movement in health care. Galvanized by two reports from the Institute of Medicine on patient safety (5) and quality (6), patients and payers increasingly demanded that their hospital care be demonstrably safe and effective. In fact, in preparing the second edition of *Hospital Medicine*, we were struck that as much as the clinical chapters had changed, the chapter that changed the most was the one on quality and value (Chapter 12). In the first edition (2000), we described an embryonic movement to measure quality and wondered whether it would ultimately impact inpatient care. At the time, there were only two inpatient quality measures (the use of aspirin and beta blockers in acute myocardial infarction) and only one organization doing the measuring (the National Committee for Quality Assurance). Pay-for-performance ("P4P") was a twinkle in some health economist's eye.

Five years later, scores of inpatient quality measures are being promulgated by organizations ranging from behemoths, such as the Center for Medicare and Medicaid Services (CMS) and the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), to groups that barely existed in 2000, such as the Leapfrog Group and the National Quality Forum. Not only is hospital care being measured and reported publicly, but early pay-for-performance experiments herald an era in which quality will be demanded, measured, and rewarded. The quality and safety movements are also catalyzing the "wiring" of the American hospital. Because processes of care and outcomes will now be measurable at the click of a button, information technology will increase the pressure on providers to deliver high quality, evidence-based care. Fortunately, the same technology will also facilitate the delivery of such care. Despite a number of tricky learning curves to traverse, it is difficult to view these sea changes as anything but welcome news for patients.

We approached the second edition of *Hospital Medicine* with all of this in mind. The entire book has been updated, and more than 10% of the chapters and 20% of the authors are brand new. More than ever, we emphasize a practical, evidence-based approach to the management of hospitalized patients. Even with all the changes, feedback from readers of the first edition persuaded us to retain the underlying organizing framework of the book: *approaching common hospital disorders and presentations from the perspective of the hospital physician*, with a particular emphasis on the temporal flow of care in the hospital (e.g., "Issues at the Time of Admission," "Issues at the Time of Discharge"). This approach remains unique to *Hospital Medicine*.

Although we expect that many of our readers will be hospitalists, the book remains agnostic regarding who the provider of hospital care is or should be. We were gratified that so many primary care physicians, nurse practitioners, physician's assistants, inpatient pharmacists, residents, and

students found the first edition useful, and we prepared this new edition hoping that it would continue to appeal to this broad audience. Regardless of our readers' roles and pedigrees, we hope that *Hospital Medicine* helps them deliver the high quality, evidence-based care that their patients deserve and supports them in their roles as clinicians, teachers, and leaders in making their hospitals safer and better.

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Preface to the First Edition

As the American healthcare system lurched toward managed care at the close of the twentieth century, there surfaced a prevailing notion that the institution we know as the hospital was a vestige of the old system and was doomed, along with long-playing records and bell-bottom pants, to the wasteheap of history. In the New Medicine, went the mantra, pressures for efficiency would lead to a medley of home care, surgicenters, telemedicine, multispecialty practices, disease management, and mass prevention strategies, all of which would render the hospital an expensive and needless albatross. Those who watched trends in hospital utilization in the late 1980s and early 1990s, particularly in highly managed care markets, had ample evidence to support this scenario.

As the new century dawns, it is clear that this script was wrong. The aging of the population, the growth of new technologies, and the efficiency of having a site for diverse specialists who focus on the care of sick patients, have all led to an *increase* in hospital utilization. With this increase has come a growing recognition that the hospital continues to be the focus of one-third of U.S. health expenditures (accounting for 5% of America's Gross Domestic Product), of the majority of deaths and virtually all births, and of staggering technological innovation and perhaps equally staggering iatrogenesis. In other words, what happens in hospitals matters.

As we began to refocus on hospital care, we were struck by the absence of a clinical textbook that *used the hospital admission as the unit of analysis*. Our goal, therefore, was to produce an authoritative, evidence-based, and practical book that focuses on key issues in the care of the hospitalized adult. In doing so, we cover most of the major issues that arise in inpatients (e.g., end-of-life care, nutritional issues, clinical decision making) as well as 75 of the most common conditions leading to hospital admission. Some signs, symptoms, and laboratory abnormalities are critically important in hospitalized patients, but do not fit into a specific disease framework. We have included these three topics within introductory chapters that precede each of the organ-based specialty sections. Our goal is to be more useful than comprehensive: very unusual diseases or presentations may not be covered in depth, but common ones certainly are. Similarly, fundamental skills such as reading electrocardiograms are not addressed in detail, as we assume a basic level of clinical knowledge and such information can be found in many other sources.

We wrote this book for the physician caring for the hospitalized adult patient. Notwithstanding our interest in the hospitalist model, except for an introductory chapter on "Models of Hospital Care," the book makes no assumptions about who is the inpatient provider, nor judgments about who it should be. Thus, we hope that *Hospital Medicine* will serve the needs not only of practicing hospitalists, but also primary care physicians and specialists caring for inpatients, inpatient nurse practitioners and physician assistants, internal or family medicine residents, and junior or senior medical students on inpatient rotations. There is a strong emphasis on appropriate care and resource use, so *Hospital Medicine* will also be helpful to inpatient case managers and others involved in hospital quality improvement, utilization management, and discharge planning.

We thank our contributors for their superb work and for presenting their information in an evidence-based and practical way. We also are indebted to Mary Whitney, Leah Hayes, Carol Kummer, Amy Markowitz, and Steven Martin for their invaluable assistance in the production of the book. Susan Gay and Tim Hiscock of Lippincott Williams & Wilkins were extremely helpful at all stages of the project. So were our faculty and housestaff colleagues at the University of California, San Francisco, who often found themselves the subjects of impromptu focus groups as we grappled with difficult clinical or organizational questions. Finally, our deepest gratitude goes to our families, who had to tolerate our absences (and sometimes our presence) while we attempted to bring this concept to reality as quickly as possible. We hope that the information contained herein will improve the quality and efficiency of care for an extraordinarily important but vulnerable population, hospitalized adults.

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