

# Observation Medicine

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Using sample clinical protocols, order sets, and administrative policies that any hospital can use, this book gives a detailed account of how to set up and run an observation unit (OU) and reviews conditions in which observational medicine (OM) may be beneficial. In addition to clinical topics such as improving patient outcomes and avoiding readmissions, it also includes practical topics such as design, staffing, and daily operations; fiscal aspects such as coding, billing, and reimbursement; regulatory concerns such as aligning case management and utilization review with observation; nursing considerations; and more. The future of OM, and how OM can help solve the healthcare crisis from costs to access, is also discussed. Although based on U.S. practices, this book is also applicable to an international audience, and contains instructions for implementing observation in any setting or locale and in any type of hospital or other appropriate facility.

**Sharon E. Mace** is Professor of Medicine at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University; Director of Observation Unit, Director of Research, and previously Director of Pediatric Education/Quality Improvement at the Emergency Services Institute, Cleveland Clinic; and a member of the Faculty of MetroHealth Medical Center/Cleveland Clinic Emergency Medicine Residency in Cleveland, Ohio.

# Observation Medicine

## Principles and Protocols

*Edited by*  
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## Advance Praise

This is a wonderful, much needed book by a wonderful, much learned author. Dr. Mace has decades of experience in observation medicine and even more in emergency medicine leadership. This book not only includes the best summary to date of what EM observation medicine has been but also provides a road map to the future. If your practice includes observation medicine, you need this book. Rock on, Dr. Mace.

**Nick Jouriles, MD, FACEP** Chair, EM, Cleveland Clinic Akron General; Professor & Chair, EM, Northeast Ohio Medical University; President, ED Benchmarking Alliance; Past President, American College of Emergency Physicians

“Observation Medicine: Principles and Protocols” edited by Dr. Sharon E. Mace is a relevant and timely textbook to Emergency Medicine. It has unique content as it relates to the development of both adult and pediatric observation medicine. The book is written in an easy to read format with many outstanding ideas on how to implement observation medicine in the emergency department. This is an indispensable resource!

**Isabel A. Barata, MS, MD, MBA, FACP, FAAP, FACEP**

Associate Professor of Pediatrics and Emergency Medicine, Hofstra Northwell School of Medicine; Pediatric Emergency Medicine Service Line Quality Director, Emergency Medicine and Pediatrics Service Line; Director of Pediatric Emergency Medicine, North Shore University Hospital

Finally! After decades, an up-to-date authority on observation units and observation medicine. If you are in any way involved in this dynamic aspect of emergency medicine, this book is for you. From the clinical to the administrative to the convoluted billing and regulatory issues, this book is a wealth of information that will help you navigate this complex area of emergency medical

practice. The included clinical protocols, alone, are worth their weight in gold; they will give you an excellent basis for the wide range of problems we can safely deal with through observation medicine. I just wish we had access to the knowledge and wisdom contained in this book when we started our observation unit in 1979!

**Stephen V. Cantrill, MD, FACEP**  
Denver Health Medical Center  
University of Colorado School of Medicine

Observation medicine is the perfect tool for progressive emergency physicians to leverage improvements in cost, quality and patient satisfaction. I have seen physician groups and hospitals struggle to collect all the information necessary to build and run an observation medicine service effectively, sometimes taking years to get it right. We have needed this book for a long time, and now it's here – a single source for the best information on what, why and how to develop an observation service that lasts and adds value to your hospital partner.

**James R. Blakeman**  
Executive Vice President  
Emergency Group's Office, San Dimas, CA

Dr. Mace's Observation Medicine is a must have for all physicians and administrators who have or would like to start an observation unit. Jammed with helpful tips, useful clinical protocols and administrative guidelines, it will guarantee the success of your program!!

**Ann M Dietrich, MD, FAAP, FACEP**  
Associate Professor Ohio University Heritage College of Medicine  
Medical Director of Education Ohio ACEP

As a longstanding residency director, it is difficult to provide the training needed to keep up with the advancements in emergency care. Observation

medicine is proving to be an extremely valuable addition to emergency care, and emergency medicine residents need to be exposed and trained in this facet of emergency care. Dr. Mace’s textbook, *Observation Medicine*, provides a valuable training resource useful to all emergency medicine residencies. This textbook provides the background needed to not only work within an emergency department that has an Observation unit, but potentially to develop one. This is a great resource for training in Observation Medicine.

**Michael S. Beeson, M.D., MBA**  
Program Director of Emergency Medicine  
Professor | EM | Northeast Ohio Medical University  
Director | American Board of Emergency Medicine  
Cleveland Clinic Akron General

The face of health care is changing and that is a good thing. However, we are a stubborn group and change is difficult. Dr. Mace’s book describes observation care in a manner that is easily understood by all healthcare providers and administrators. What we are unfamiliar with we are afraid of. . . Dr. Mace’s book will provide the knowledge you need to embrace the change and leverage the observation services you deliver. As a nurse, we continue to care for our patients the same as we always have but in a shorter span of time, this book shares invaluable information in resource management, time management and expedited care management. This book is a MUST HAVE for success in our evolving health care environment.

**Ethel Games, RN**  
Emergency Room Nurse  
Fountain Valley Regional Hospital  
Fountain Valley, California

This text will serve as the “go to” resource for health care providers managing patients in an observation unit. The book is well organized with chapters that focus on the content most relevant to contemporary observation medicine. There is no doubt it will become required reading for the observation medicine curriculum in EM residency programs.

**Michael Brown, MD, MSc**  
Professor, Michigan State University College of Human Medicine

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Michigan

The Textbook *Observation Medicine: Principles and Protocols* edited by Sharon E. Mace is a must have in your Emergency Medicine Library. Dr. Mace, an experienced Emergency Physician practicing Observation Medicine for Adults and Children at the Cleveland Clinic Hospital System for decades, has assembled a team of contributors representing the best and brightest of Emergency Medicine. In the ninety-six (96) Chapters of this book, the reader will learn everything you need in implementing an Observation Unit for your Emergency Department and your hospital. The breath of this book is exhaustive. The chapters are organized into multiple sections. They include: “Administration, Clinical Setting and Education, New Developments, Financial (including coding and reimbursement), Clinical Protocols, Administrative Policies, Order Sets for Adults and Pediatrics, and much more.”

Economics and the desire to provide optimal care for Emergency patients who needed just a little bit more time to stabilize their care, arrive at a definitive answer, or prepare patients for safe discharge home without a hospital admission, helped to drive the development of this specialized area of Emergency Medicine.

As written, in the forward by Greg Henry, MD, FACEP, (Past President of the American College of Emergency Physicians), “Remember the goals: cost-effective care, time-efficient care, the best patient outcomes, and more compassionate human-centered care. Observation medicine can achieve these goals.”

This book can help establish an Observation Unit as part of your Emergency Department through its guidance of Administration, Protocols, exploring the types of Clinical Problems that would best be served by these units. They also bring in the experts of reimbursement to help you pay for the services you provide. If you already have an Observation Unit, this book is essential to operating that unit correctly and at a higher level. If it is your responsibility, as an Emergency Department Leader (Director, Associate Director, or responsible for medical or nursing education), the protocols and educational modules will make your life easier.

Advance Praise

Do yourself a favor and purchase this book for yourself and your department. You will be glad you made the investment.

**Andrew I. Bern, MD, FACEP**  
Past Member, ACEP Board of Directors  
Past, Chairman of the ACEP Board of Directors

We currently sit amidst one of the most transformational periods in healthcare, with a rise in consumer based value assessments that are driving care. For those with new or worsened illness or injury, observation care is a key tool after emergency department care to optimize outcomes and enhance value. This *Observation Medicine* text assembles the knowledge needed, from organization and oversight through

symptom-driven approaches and disease specific care. Rather than searching through many texts or sites, Dr. Mace and her team created a singular source that uses a clear and accessible format to aid those wanting to start or improve their observation unit.

**Donald M. Yealy, MD**

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## About the Editors

### Editor

**Sharon E. Mace, MD, FACEP, FAAP** is board certified in emergency medicine and pediatrics. She is a Professor of Medicine at the Cleveland Clinic Lerner College of Medicine at Case Western Reserve University and is full time faculty in emergency medicine for the MetroHealth Medical Center/Cleveland Clinic Emergency Medicine Residency Program in Cleveland, Ohio. She has over 37 years of administrative and clinical experience in emergency medicine in academic and community hospital settings including nearly a decade as a Director of the Emergency Department in a Community Hospital. She is currently an attending physician in the Emergency Services Institute at the Cleveland Clinic. She is the Director of Research and has been the first and only Director of the Observation Unit at the Cleveland Clinic for the past 23 years since the inception of the “Clinical Decision Unit” in 1994, where she has been able to mentor medical students, residents and even several international fellows in observation medicine. The observation unit at the Cleveland Clinic is a 20 bed unit that places about 6,000 patients a year in the Observation Unit. She has also been Director of Pediatric Education and Quality Improvement for the Cleveland Clinic Emergency Services Institute. She has lectured nationally and internationally on emergency medicine especially observation medicine. She has served as the Chairman of the Section of Observation Medicine for the American College of Emergency Physicians and on the Observation Medicine Committee for the Society of Hospital Medicine that authored a white paper on observation medicine. She has authored over 200 articles in the medical literature, over 60 textbook chapters (excluding this textbook) and edited a previous medical textbook and now this second authoritative and comprehensive textbook on observation medicine. She has been the recipient of numerous grants and awards including a

National Science Foundation Research Fellowship, Academic Residency Science Day Award, National Chapter Project Award, State Emergency Medical Services Council Award for Leadership and Excellence in Emergency Medical Services, the American Association of Women Emergency Physicians Research and Education Award, and Who’s Who in America and Who’s Who in the World. She has served as a course director for numerous medical courses including many national conferences on Observation Medicine and has even been a member of the Pediatric Medical Care Subcommittee for the National Presidential Commission on Children and Disasters.

### Section Editors

**Matthew J. Campbell, Pharm.D., BCPS** obtained his Doctor of Pharmacy degree from Ohio Northern University and subsequently completed a Pharmacy Practice Residency at MetroHealth Medical Center in Cleveland, Ohio. He is a licensed pharmacist in the state of Ohio and is a Board Certified Pharmacotherapy Specialist (BCPS). He has received numerous honors and awards including the Ohio Northern University Presidential Merit Scholarship, Institutional Preceptor of the Year at the College of Pharmacy at Lake Erie College of Osteopathic Medicine, Pharmacist Mission Award at Cleveland Clinic, and the Promoting the Profession Award at Cleveland Clinic. He has had numerous presentations locally and nationally and is actively involved with pharmacy resident education at Cleveland Clinic. He practiced as a Clinical Pharmacy Specialist in the surgical ICU of a community hospital for several years and is currently the Lead Pharmacist in the Emergency Services Institute at the Cleveland Clinic in Cleveland, Ohio. He is the Section Editor for the Section IX: 1 Adult Order Sets and Section IX: 2 Pediatric Order Sets.

About the Editors

**Karen Games**, RN, has over 40 years of experience as a registered nurse and as a case manager. She received her nursing degree from South Suburban College in Illinois, and completed a Critical Care Specialty Nursing Course at Good Samaritan Hospital in Los Angeles. Her academic credentials include the following training and certifications: FHP Management Training – Quality Education System, HFMA Billing Compliance and a five year Certification Program in Case Management (CCM). She is also an InterQual Certified Trainer. She has been a consultant and a national speaker on Case Management. With her extensive nursing, case management, and administrative experience, she has had an opportunity to develop multiple programs, policies and procedures related to nursing, case management, and observation medicine. Her various administrative positions include serving as a Regional Case Management Director, a PMI Case Management Specialist, the Director of Case Management Education and Informatics for the Tenet Health System. She has also been the Director of Risk Management and Patient Safety for Desert Regional Medical Center in California and most recently, Administrative Director of Collaborative Care at Los Alamitos Medical Center, also in California. She is the Section Editor for Chapter 7: Nursing, Chapter 64: Determining the Correct Status and Chapter 65: Care Coordination.

**Michael Granovsky**, MD, CPC, CEDC, FACEP is board certified in emergency medicine. His certifications in coding include the American Academy of Professional Coders (AAPC) – Certified Professional Coder and AAPC – CEDC ED

Specialty Certification. He has been a member of the American College of Emergency Physicians (ACEP) for 20 years, a member of the AAPC for 15 years and has served for nearly 15 years on the ACEP Physicians Coding and Nomenclature Advisory Committee (CNAC), including three years as the CNAC National Chairman. He has spoken nationally at numerous conferences and has been the author of many articles in professional publications dealing with reimbursement, practice management issues, CPT, ICD–9, CMS issues and ICD–10. He has served as the course director for the ACEP Coding and Reimbursement Conference for over a decade. He has been on the editorial board and served as the editor for ED Coding Alert. He is the Technical Editor of the AAPC ED specialized CPC–CEDC Emergency Department Coding Specialty Certification. He is the subject matter expert on the ED Specialty Exam and Study Guide for the AAPC. His service on national committees includes immediate past chairman ACEP National Coding Advisory Committee, Work Group Chair ICD–10 – ACEP Quality and Performance Committee, ACEP Expert Technical Panel for Quality Measure Development, ACEP Registry Task Force and the ACEP Reimbursement Committee – Fair Payment Work Group Chair. Dr. Granovsky is currently the Chairman of the ACEP Reimbursement Committee. As the President, Division of Coding for Logix Health; he is responsible for health policy, coding, education, and regulatory processes with oversight of seven million annual emergency department claims. He is the Section Editor for Section V: Financial Coding and Reimbursement and Chapters 1 and 2.

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## Foreword: Onward and Upward

Science in many ways has become an international bully. It expects everyone to stop their day-to-day life as “we scientists” prod and probe the human body doing everything we can to belittle human life and reduce the patient to a soulless heart-lung preparation without value, virtue, and the essence of humanity removed. The more time the patients spend in the giant monolith known as the tertiary care hospital, the less real patient’s lives become.

Enter this book and more importantly the field of observation medicine. First things first. Most books don’t need a foreword! Get on with it, but in the best traditions of foreword writing I’m going to set forth a framework as to where medicine is to go if we are to have any economic viability as a profession and still meaningfully improve outcomes.

Let’s draw some quick conclusions as to where medicine stands at the year 2016. What have we learned from the past? First, most things that happen in hospitals have unintended consequences, i.e. “Bad things happen; even with the best of intentions.” The sooner we get you out of the hospital, the less likely you are to pick up an infection we can’t cure or fall and break your hip. This is a change from my early life in medicine where we assumed that the death rate was lower inside these huge structures of science than out on the streets or at home.

Second, costs count! You can die at home for free and if we can’t make a real contribution to a meaningful life, what are we doing, and why are we charging so much money for it? Human flourishing is not equivalent to having a heartbeat.

Third, Charlie Chaplin’s classic film, “Modern Times” was made during the machine age when there was a wide spread fear that technology was setting the agenda for human life. “Taylorism” as the Marxist used to put it, was putting rigid unvarying thought before actions or consideration of outcomes. Substitute

computer for the word machines and you have our own age.

Fourth, there is no controlled governor on the current system. Dr. John Rogers once commenting on medicine said, “They gave us an unlimited budget, and we over spent it.” Will the useless CPR ever stop?

With these thoughts in mind, let’s predict where medicine will be and why this book should be extremely useful. The emergency departments of America have become centers of clinical decision making. The ED is where all important decisions of inpatient v. outpatient care are now being made. Observation medicine is the new third pathway which allows a good alternative to protect inpatient populations and yet recognize that time is the only reliable test of therapy. Not all care fits into the neat four hour maximum of standard emergency department visits.

Hopefully with new opportunities to control overall costs, we will take this opportunity and seize the day. The real question is, are we going to be able to move the current system to “buy into” a healthcare product mode which addresses individual charges but can concentrate on actual costs? No economist would confuse these concepts. The bulk purchase of service will require honesty about what needs to be done for patients as opposed to what can be charged for when dealing with the government and third party payers.

Just conclude that if the days of big money and “spend at all costs” isn’t over with, it shortly will be. Observation medicine should be ready to offer the cost effective alternative. If we can’t do that than just burn this book and admit everyone.

Lost somewhere in ICD-10 coding, (and what isn’t lost in ICD-10 coding) is the concept of making life better. Getting patients closer to their families and friends and out of rooms where the mattresses are covered in plastic and the only people who touch you wear gloves and masks.

Foreword: Onward and Upward

The new world for providers looks much different than the old. It is no accident that organized medicine has not asked serious questions concerning workforce issues. 75% to 80% of the healthcare costs in America are workforce. There is almost no real research as to who should be doing just what. This is as true in urban areas as in rural outposts. It is an embarrassment that we do not have these answers which are needed if cost control is to be achieved. Even the simplest questions as to how many facilities do we need per population, hinges on the questions of utilization and cost. The number of hospital based emergency departments in the last 40 years has gone

from 5,700 to slightly less than 4,000. What is the correct number of such hospitals which are needed? What is the number of free standing ERs and urgent care centers which are needed? All of these will depend on the blossoming of observation medicine. So as you proceed through this book, don't lose the forest in the ventilators. Remember the goals; cost effective care, time efficient care, the best patient outcomes, and more compassionate human centered care. Observation medicine can achieve these goals.

Ars longa vita brevis.

*Greg Henry, MD*

## Preface

The purpose of this textbook is to provide a resource for anyone interested in observation medicine and to be a practical education for “how to” do observation in any setting or location, even internationally. Currently, there is no one source that you can reference to learn about not just the clinical aspects of observation with information including protocols and order sets; but also the administrative, business, fiscal, nursing, case management, utilization review, design, reimbursement, regulatory/governmental, and other facets of observation medicine. Monumental changes are occurring in health care not just in the United States but throughout the world and observation medicine can be on the frontlines in solving the complex issues facing healthcare now and in the future.

This text is intended to be a practicum for anyone interested in setting up or maintaining a successful Observation Unit (OU). To quote a colleague and friend, this textbook is “one stop shopping” for observation medicine. Much of the information in this textbook is not readily available elsewhere. Some of the Chapters, such as the protocols and order sets are detailed enough to serve as a “hands on” manual for observation medicine. The intent was to provide a concise, useful overview of all aspects of observation medicine starting with the clinical and expanding to the organizational and administrative aspects from set-up and staffing; to the regulatory/governmental, the business and financial, and reimbursement. This “real world” information should be applicable to any given practice setting; whether urban, suburban or rural; community-based or academic, in the United States or worldwide. In the 21st century, medicine including observation medicine is an art, a science and a business. This text is intended to address these three topics; while detailing how observation

medicine operating with a patient/family centered focus can help provide the highest quality of patient care with optimal patient outcomes and be cost-effective.

I hope that everyone: clinicians, administrators, nursing, case managers, reimbursement specialists, utilization review experts, and the many others involved in any aspect of observation medicine; will find this textbook a valuable resource in their clinical practice and daily operations that can provide a useful toolkit for understanding the many complex issues with observation medicine and healthcare, and offer insights into recent developments and the future.

With any endeavor, there are many contributors. I could not have accomplished this textbook without the numerous authors and editors, as well as the individuals at Cambridge University Press. I have had the honor and pleasure of serving as the Director of the Clinical Decision Unit at the Cleveland Clinic since its beginning in 1994, more than twenty years ago. The CDU is one of the oldest OUs in existence. The 20 bed unit has averaged about 6,000 patients a year and has been in operation with the same director since its inception. Indeed, we may have the longest continuously in operation OU with the same OU director anywhere. I would like to acknowledge the numerous contributions of my colleagues and coworkers over these two decades including the many outstanding physicians, the exceptional nurses and other personal in the OU and the emergency department and the hospital staff/personnel. Thank you for allowing me to work with you and improve care for our patients. To my students, residents and fellows, thank you for allowing me to participate in your education and research. May all our patients benefit. Finally, thank you to my family and friends for their encouragement and love.