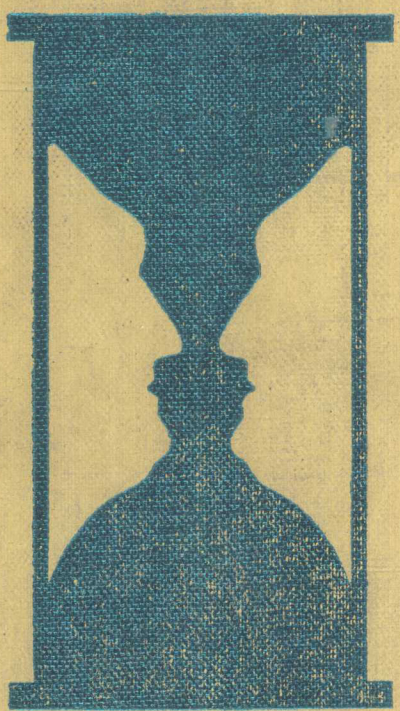
GERIATRIC EMERGENCY MEDICINE



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GERIATRIC EMERGENCY MEDICINE

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GERIATRIC EMERGENCY MEDICINE

In loving memory of
Martin Bosker and Milton Schwartz

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Preface

Geriatric emergency medicine has evolved into a bona fide — and increasingly fashionable — clinical discipline, if for no other reason than because the United States has become a graying nation. At present, 38 million individuals over the age of 65 constitute 12% of our population and more than 32% of total hospital admissions in America. By the year 2012, one in every five Americans will be over 65, and there will be more than 16 million people over the age of 85.

At present, the average American who attains the age of 80 has a life expectancy of approximately 7 to 10 years. The average life expectancy for a woman in this country reaching adulthood is estimated to be about 84 years, and for a man it is 72. Although only 5% of these elderly people live in nursing homes, such chronic conditions as coronary artery disease, cancer, cerebrovascular disease, and diabetes are common in the geriatric population. Because these afflictions are frequently characterized by acute exacerbations or sudden deterioration, the elderly tend to be significant clients of outpatient services, especially emergency departments. This is particularly true of the 27% of elderly people living alone who must also cope with multiple medical problems and who function poorly both mentally and physically.

As a result of these demographic patterns, hospital emergency departments are encountering an increasing number of medical and surgical disorders unique to the elderly population. In many respects, geriatric emergencies are similar to those that occur in younger patients. The elderly, however, tend to have multiple problems, and their symptoms frequently do not fit classic patterns. Hence, diagnosis, assessment, and triage of these patients can be difficult and problematic. Emergency care for the elderly is characterized by many unique aspects. For example, nearly one in four emergency department admissions for the elderly is caused by a drug-related adverse patient event (DRAPE). The Department of Health and Human Services reported that in 1988 there were 240,000 hospital admissions for adverse drug reactions and 40% of these befell individuals 65 years or older, the majority of whom were diagnosed or managed initially in the emergency department setting. A review of cardiovascular disease compliance studies attributes an annual 125,000 death toll at the doorstep of medication noncompliance or drug toxicity. With respect to traumatic injuries in the geriatric age group, falls rather than motor vehicle accidents constitute the most important cause of morbidity and mortality in this age group; again, it is primarily in the emergency department, where intrinsic versus extrinsic etiologies of syncopal episodes must be diciphered, where the initial assessment and management of hip fractures transpire, and where the subdural hematoma must be suspected and appropriately evaluated.

Over the past decade, the geriatric medical imperative has made a profound and lasting impact on American health care; the field of emergency medicine is no exception. There is simply no escape from the fact that as emergency medicine and related disciplines — critical care, prehospital medicine, geriatric nursing, and such geriatric-oriented subspecialties as cardiology and neurology — evolve, our attention, by necessity, increasingly will be directed at older Americans. Those of us in emergency medicine who have gained experience in managing elderly patients have become poignantly aware, first, of the unique manner in which the elderly respond to nonurgent medical and surgical problems and, second, of the ways in which their signs and symptoms differ in such life-threatening disorders as myocardial infarction, sepsis, and myxedema coma. For example, we now know that geriatric patients over the age of 85 are more likely to present with shortness of breath than with chest pain as the initial manifestation of acute myocardial infarction. Syncope in the elderly carries a vast array of possibilities for differential diagnosis, from autonomic neuropathy and cardiac bradydysrhythmias to drug-induced orthostatic hypotension and vasovagal syncope, entities that must frequently be sorted out in the emergency setting. This variable display of symptoms in older patients underscores the importance of recent investigations indicating that elderly patients spend more time in emergency departments, undergo more diagnostic tests, and are more likely to be misdiagnosed than their younger counterparts. Finally, the "return visit" or "bounce-back" rate for geriatric patients is higher than it is for any other subpopulation seen in the acute setting.

Complicating the complex, often elusive nature of acute illnesses in the elderly is the necessity of rapidly initiating lifesaving measures and instituting precise interventions, which must frequently be accomplished with

only a limited data base. There is also the pitfall of inappropriate triage, which may be characterized by either unnecessary hospitalization of an elderly patient with a minor illness who is better left in the familiar surroundings of the home environment, or failing to hospitalize an older patient whose serious illness produces little in the way of conspicuous signs or symptoms. Such decisions are complicated by the fact that clinical conditions that are not life threatening may produce exaggerated symptoms in the elderly, while such life-threatening disorders as myocardial infarction may produce minimal clinical symptoms, an irony that requires the clinician to maintain an unusually high index of suspicion.

Because elderly Americans and the diseases they suffer from now constitute an ever-increasing percentage of emergency department visits, the time has come for a comprehensive book that specifically addresses assessment and intervention strategies in this patient population. The purpose of this reference is to serve as a clinically oriented resource for the care of elderly patients in a modern hospital emergency department or in any facility that treats older patients. Much to the credit of this group of contributors and editors, this book attempts to reflect a recognition of unique medical needs of geriatric patients in regard to emergency diagnosis, management, and triage. Spanning a diverse range of acute care specialties, from cardiology, neurology, and endocrinology to clinical pharmacology, toxicology, and surgical diseases, these authors have recognized the geriatric imperative in emergency medicine, and they have tried to bring both sensitivity and clinical rigor to the emergency needs of older Americans. Of particular note is the section on acute geriatric nursing, because more than in perhaps any other area of medicine, the out-of-hospital nursing link is critical for good patient care.

If this book succeeds in heightening the emergency practitioner's awareness of the clinical and social issues surrounding the care of acutely ill geriatric patients, it will have served its purpose.

Gideon Bosker
Editor-in-Chief

Acknowledgments

Geriatric Emergency Medicine would not have come to fruition without the commitment and creative talents of many individuals who, over the past four years, have devoted their time and energy to this project. In this regard, we gratefully acknowledge David Culverwell, Publisher, and Richard Weimer, Executive Editor, who must be credited with having the vision and intelligence to recognize that geriatric emergency medicine would one day take root as a critical subspecialty within the general field of emergency medicine. Without their commitment and expansive view of medical publishing, this book would not exist.

In this vein, the editor-in-chief also wishes to thank John W. Grigsby, M.D., F.A.C.E.P., Chief of Emergency Services at Good Samaritan Hospital, Portland, Oregon, for his ongoing commitment and support of educational programs devoted to geriatric emergency medicine since 1982. Dr. Grigsby's insights into the future of emergency medicine have inspired much of this project, and his invaluable editorial contributions and responsibilities for the previous edition of this book are sincerely appreciated by the editorial team.

The original manuscript was meticulously organized and catalogued according to subject headings by Rina Steinhauer, whose valuable insights and editorial dissection have been retained in the outlines that appear at the beginning of each chapter. Her organizational skills and conceptual insights are sincerely appreciated. The design of the book evolved through many different stages; its final crystalline form can be credited to Liz Fett, whose comments, sketches, and designs were inspired and carefully wrought throughout the book's development. The cover logo, in which an hourglass also reveals the near-mirror images of two elderly faces, is an original contribution by Elise Stimac, and we wish to express our thanks for her graphic panache and visual illumination.

Dr. Schwartz would particularly like to acknowledge the enormous help in manuscript organization and preparation by his wife Kathleen Schwartz, who has been deeply committed to this project throughout the years of its development.

And finally, the bottom line. As all editors and academicians know in their hearts, every book has its guiding light. The guiding light steering this book to its ultimate completion has been Karen Edwards, Senior Project Manager, without whom this book would not have the editorial polish it has achieved in its finished form. We sincerely express our appreciation to Ms. Edwards, who has been an editorial pillar of strength and policeman throughout the later stages of the book and who has had the enormous responsibility of correcting and conceptually tightening a massive volume of material within a relatively short amount of time. She is a silent hero behind the scenes of this project, and we thank her for her outstanding talent and commitment.

The Editors

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George R. Schwartz, M.D., F.A.C.E.P.

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Our older population represents a substantial (12%) and ever-increasing portion of the patients who present in emergency departments. Even in 1976 elderly patients used one third of hospital beds and almost one third of each health care dollar.[1] This number has now increased and is closer to 40%. Sensitivity to the problems and needs of older people is vital as we witness an increasingly vigorous longevity and the general aging of our population. It is amazing that emergency medical units still are often planned without the elderly as a prime consideration despite the projections that within 50 years one of every five persons will be over the age of 65. Even now, more than 11% of the population is 65 or older, up from 4% in 1900. Of the 65 and older group, those aged 75 or greater rose from 29% in 1900 to 38% in 1970; it is expected to reach over 40% by the year 2000.[2]

Care of elderly patients in the emergency department requires changes in emphasis. A particular pitfall is focusing too closely on the patient's presenting problem without exercising sufficient vigilance in identifying possible underlying conditions, both social and medical, that may have caused the acute medical problem or injury. Elderly persons in particular require this type of attention. For example, falls are a major source of morbidity and mortality in the elderly and often have treatable causes, both medical (e.g., underlying diseases) and environmental (e.g., clothing, rugs, poor lighting, etc.).[3]

As with persons of any age group, elderly individuals frequently need active medical intervention that must be based on very limited information. Lifesaving actions might have to be taken even before a patient's identity is known: bleeding stopped, shock treated, fractures diagnosed and splinted, respiratory arrests or obstructions immediately alleviated, and lacerations sutured. Often the patient is not known by the staff, and there is little history on which to proceed, but prompt medical decisions must be made with attention to the known physiologic differences and response to trauma.

However, for a physician to stop treatment after the life-threatening problem has been controlled or the obvious presenting symptom cared for is to lose a substantial opportunity to evaluate problems that may have precipitated the accident or illness. Such considerations often directly influence the responses to treatment. Nutrition, drugs, and underlying medical problems are important factors in the development of emergency medical problems and are discussed in the sections that follow.

FOOD AND NUTRITION

Many older people live alone and are on fixed, low incomes. Loneliness, decreased sensitivity to taste, physical infirmity, and decreased vision all act to reduce the motivation to shop for fresh food items. Thus, there is a tendency to rely on processed foods and food that will keep on the shelf. Numerous studies have demonstrated that elderly patients frequently consume less than the minimum daily requirement of most vitamins. In addition, malabsorption can cause or compound nutritional deficiencies. Poor dentition reduces mastication, and frequent hypochlorhydria as well as decreased intestinal secretions further tend to reduce absorption.[4] Additionally, many processed and prepackaged foods have sufficient doses of monosodium glutamate (MSG) to produce or add to symptoms of dizziness, edema, and depression.

The use of supplemental vitamins does not solve what is usually an overall problem with diet, not just insufficient