



CANCER — AND — AGING HANDBOOK RESEARCH AND PRACTICE

EDITED BY

Keith M. Bellizzi
Margot Ann Gosney

 WILEY-BLACKWELL

**CANCER AND AGING
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RESEARCH AND PRACTICE

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FOREWORD

You may open the window
And fail to see the fields and the river;
Even if you are not blind
You may be unable to enjoy the view of trees and flowers!

These verses of Fernando Pessoa are engraved on his monumental tomb in the Lisboa cathedral. They crystallize more eloquently than any scientific paper the urgency to study geriatric oncology. Diversity is a hallmark of aging. Individuals of the same chronologic age may differ substantially in life expectancy and tolerance of stress. When it comes to older individuals, the art of medicine consists in identifying those patients who are more likely to benefit from an aggressive treatment and those that are more likely to be harmed by it. In addition, the goals of treatment may change from patient to patient according to one's physical stamina and one's lifetime priorities. To a large extent, the management of an older individual is a social issue, involving the home caregiver and all the persons connected with the caregiver. It behooves the practitioner to ensure that the caregiver is appropriate for the patient's need and that caregiving does not disrupt the caregiver's family life.

The management of older individuals, including older cancer patients, involves a wisdom developed over a lifetime, thanks to time-consuming listening and painstaking collection and interpretation of clinical details. Only a practitioner willing to invest the time necessary to these endeavors will be able to provide safe and effective care to the older patient. In the management of older individuals with cancer, the practitioner needs to feel comfortable with uncertainty; to enjoy being creative in novel situations; to think outside the box; and to enrich with his/her own experience the dictates of medical textbooks, treatment guidelines, and clinical pathways. The best source of clinical evidence, the randomized clinical trials, are not very helpful for personalized care, because they cannot encompass the variety of conditions encountered in older individuals. A prominent geriatrician from the UK has defined evidence-based medicine as "evidence-biased medicine" [1], as the controlled conditions of clinical trials are rarely, if ever, reproducible in the practice arena.

There are other reasons for studying geriatric oncology beside the uniqueness of each cancer patient. They include the biological interactions of aging and cancer. Aging is a risk factor for carcinogenesis. This statement is confirmed by the association of smoking cessation with an epidemic of lung cancer in the elderly (people who no longer die of a coronary attack live long enough to develop lung cancer) [2] and that age is a risk factor for chemotherapy-induced acute myelogenous leukemia [3]. Also, the behavior of neoplasias may change with aging. For example, the prevalence of adverse prognostic factors increases with the age of patients with acute myelogenous leukemia [4], whereas breast cancer may become more indolent in the elderly [5]. The tumor host interactions represent a fascinating and largely unknown subject.

The problems of geriatric oncology are becoming everyday problems in the practice of oncology, given the rapid expansion of the aging population [6]. By the year 2000 50% of all malignancies occurred in the 12% of the population aged 65 and over; by the year 2030 it is predicted that individuals 65 and over will account for 20% of the population and 70% of all cancers in the United States [6]. This book, which gathers the contributions of some of the world's best known experts in the field, could not be more timely.

Perhaps more than any other field of medicine, geriatric oncology is rapidly evolving. Nobody will be able to provide a final word, during our lifetimes, at least. This book should be considered as an important foundation supporting both the practitioner of oncology and the clinical and basic investigators in the area. It is necessary, every so often, to summarize where we are and to decide where we should be going. By providing such a beacon, the book will have fulfilled this goal.

In one of his first novels, *Love and Pedagogy*, Miguel de Unamuno stated: "The truth is the worst of all lies." This paradox certainly applies to a medicine carved in stone rather than lived as an ongoing journey and a fascinating adventure. This book provides a current guide to practitioners and scientists involved in the journey.

LODOVICO BALDUCCI

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PREFACE

Since the 1980s there has been an unprecedented increase in the attention being paid to the topic of cancer and aging. This is reflected by a 2007 Institute of Medicine workshop on cancer in the elderly and several special journal issues on this topic [1–3]. This response is the direct result of three converging forces: the aging of the population, the age-sensitive nature of cancer, and innovations in medical care. The confluence of these factors represents a significant public health challenge for the future. This challenge is further complicated by a potential shortage of oncologists, geriatricians, and nurses due to the projected exponential increase in incidence and prevalence of cancer in older adults coupled with a reduction in healthcare professionals entering into these fields [4,5].

These trends provide both challenges and opportunities. A central challenge is building the evidence base from epidemiologic, clinical trial, and behavioral research focusing on care for older adults across the cancer care continuum. Unfortunately the science of cancer care in the elderly population lags far behind what is known in children and other adults with cancer. Therefore, much of what is being practiced is extrapolated from studies of younger cohorts or based on clinical judgment. Another challenge is our capacity to respond to the complex healthcare needs of older adults given the projected shortages of geriatric/gerontology-trained healthcare workers. We believe that the answer to this question is multifaceted and will require thinking “outside the box” to (1) test new models of cancer care: (2) encourage new physicians to pursue geriatric fellowships: (3) provide broader geriatric and gerontology training for primary-care physicians and nurses: and (4) foster research and clinical collaboration among geriatricians, gerontologists, adult oncologists, and behavioral scientists. This latter endeavor is important as each of these disciplines contributes different perspectives, all essential to providing quality care to the growing population of older adults.

With challenges come opportunities. As we age, we become more heterogeneous in terms of physical and psychosocial health as a result of our previous lifestyles, environmental exposure, and genetic composition. Cancer care for older adults will likely be based on individualized approaches that account for this heterogeneity as well as the needs and preferences of the individual. This will likely require a paradigm shift from population-based medical care and healthcare to patient-centered care, which, we believe, will ultimately result in the highest-quality and most cost-effective care.

This multidisciplinary book was written by some of the most prominent international experts in the field of cancer and aging. The chapters in this book provide a synthesis of findings from current epidemiologic, behavioral, and clinical trial research across the entire continuum of cancer care, from prevention and screening, to treatment and survivorship, to end-of-life care. This book also includes a section on emerging issues in cancer care for older adults, including chapters focusing on caregivers, comprehensive

geriatric assessment, the economic cost of treating older adults with cancer, and finally a discussion of multidisciplinary models of care. For some topics in this book, the evidence is still nascent, and the authors were challenged to provide recommendations for future research in these areas. In doing so, they raise some interesting questions about the complex issues facing older adults before, during, or after the diagnosis of cancer.

We believe that this book will demonstrate that the answer to addressing one of the biggest public health challenges of our time does not rest within any one discipline and that a broader knowledge and multidisciplinary approach is required to care for older adults at risk for, or living with, cancer. Our hope is that this information will be useful for healthcare providers, medical students, public health professionals, and policymakers who care for, or make policies that pertain to, the health of older adults.

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