Treatment Strategies and Practice Guidelines in Geriatric Oncology

a report by
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Hans Wildiers, MD, PhD, has been the Belgian national representative of the International Society of Geriatric Oncology (SIOG) since July 2003. He is a staff member in the Department of Medical Oncology at the University Hospital Gasthuisberg, Leuven, Belgium, having become a specialist in internal medicine and medical oncology in March 2004, with particular interest in the fields of breast cancer and geriatric oncology. He is a board member of the task force on chemotherapy in the elderly and the task force on renal function and chemotherapy. Dr Wildiers began his medical studies at the'Katholieke Universiteit (KU), Leuven, in 1989 and graduated *magna cum laude* in 1996. After clinical training he became a Fonds voor Wetenschappelijk Onderzoek-Vlaanderen (FWO)-aspirant and obtained his PhD on September 2003, for which he received the Amgen award 2004 of the Belgian Society of Medical Oncology (BSMO) and the Pfizer educational grant from KU, Leuven, in 2004. His research concerned the topics of blood vessels and the tumor uptake of anticancer drugs.

Cancer is largely a disease of elderly people (see *Figure 1*), while its risk increases significantly with age (see *Figure 2*). Moreover, the Western population is aging rapidly (see *Figure 3*). Although 60% of new cancer cases and over 70% of cancer deaths occur in patients aged 65 and older in Europe, standard cancer treatment strategies have mostly been validated in younger adults. Many trials have excluded elderly patients (see *Figure 4*).

Aging brings with it a progressive but extremely uneven decline of functional reserves and a reduction of adaptability; therefore, many treatments need to be adapted to this reality. The challenge of the appropriate management of the increasing number of elderly cancer patients, and its impact on the rising costs of medical and social care, has been poorly anticipated. This demographic trend has led to the emergence of a new medical discipline, geriatric oncology, and to the development worldwide of geriatric oncology programmes dedicated to the management of elderly cancer patients.

Due to increased specialisation, oncologists and organ specialists are increasingly directed toward treatment of one tumor type and disease. However, older patients cannot be managed in the same way as their younger counterparts due to concomitant and possibly multiple medical problems. The management of elderly cancer patients requires multidisciplinary skill and, ideally, close relationships between oncologists and geriatricians. Geriatricians have studied the highly heterogeneous process of aging, and have elaborated a comprehensive multi-disciplinary assessment tool, comprehensive geriatric assessment (CGA), in which all aspects of older individuals are considered and resources and abilities are listed.

Crucial elements of CGA are performance status, functionality, nutritional condition, co-morbidity, polymedication, social situation, cognitive dysfunction, and depression. This CGA process has previously demonstrated its ability to improve survival and quality of life and reduce costs for the elderly community. Based on this appraisal, physicians can draw and coordinate an effective care program, providing interventions tailored to each individual's problems.

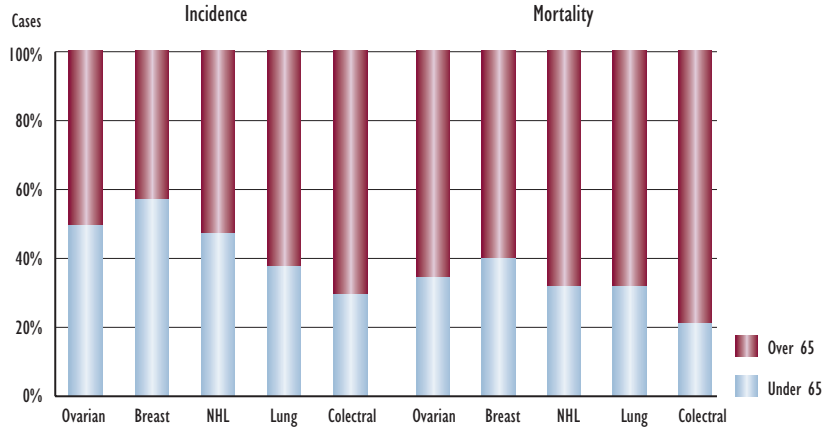
This tool needs to be adapted to the reality of oncology, both in a research and a daily practice environment. The CGA is indeed a complex and sustained multi-step procedure and cannot realistically be implemented in the oncology practice setting. Aside from this outstanding approach, various screening tools are currently being developed that will allow a CGA to be conducted only on patients who will benefit from it.

In adjuvant studies of breast cancer now established by various cooperative groups in Europe, including the International Breast Cancer Study Group (IBCSG), a simple screening called the Vulnerable Elders Survey (VES-13) scale is being validated prospectively, as are the value of hemoglobin and albumin levels and calculated creatinine clearance to predict possible increased toxicity of some drug combinations.

The physical performance test (PPT) could be another relevant instrument for screening this population of patients. The development of specific protocols for elderly patients should allow the definition of appropriate treatment programs. The medical community has made striking progress in the treatment of children with cancer; it is time that it does the same for their grandparents and great-grandparents. The healthcare community has become aware of the magnitude of the problem of cancer in the elderly, and worldwide efforts have been made to approach this issue in a scientific manner.

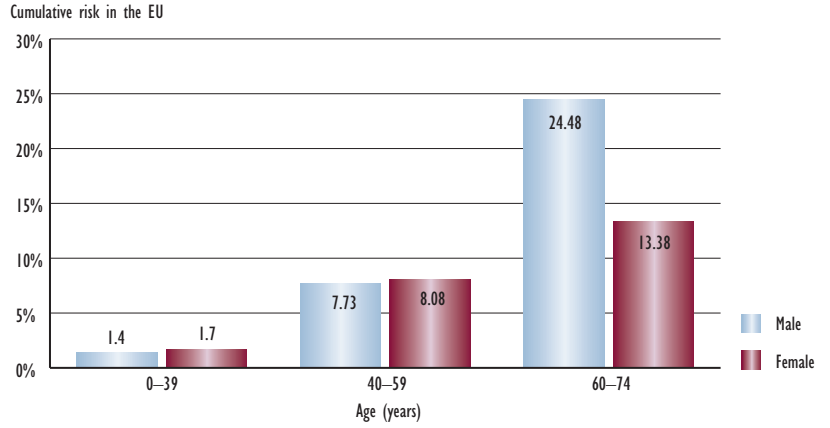
The International Society of Geriatric Oncology (SIOG) was founded at the beginning of the 21st century and has initiated several task forces to help develop research in the field (see *Table 1*). For instance, age and age-related renal function decline can have great impact on the efficacy and toxicity of chemotherapy. Two task forces have been raised in order to provide guidelines on the use of anticancer

Figure 1: Cancer is a Disease of the Elderly



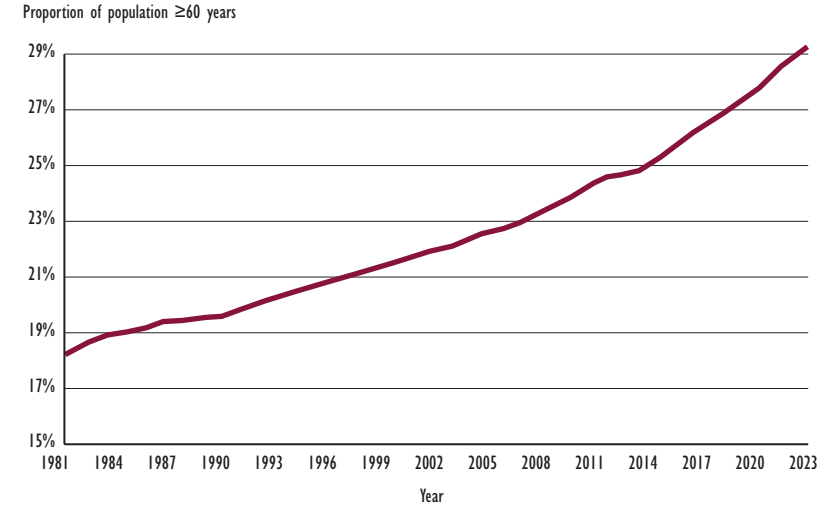
NHL=non-Hodgkin's lymphoma.
Ferlay J et al., IARC Cancer Base, Lyon: IARC Press 1999. Updated September 29, 2000.

Figure 2: Cancer Risk Increases with Age



Ferlay J, et al. IARC Cancer Base, Lyon: IARC Press 1999. Updated September 29, 2000.

Figure 3: The EU Population is Aging



European Technology Assessment Network working paper, Luxembourg (1998).

Table 1: Task Forces from SIOG

Comprehensive Geriatric Assessment (CGA) Surgery

Radiotherapy

Chemotherapy Toxicity

Cultural Competence

Inter-society Collaboration

Guidelines for Diagnosis and Treatment in Elderly Patients

Organization of Geriatric Oncology Programs

Renal Insufficiency and Safety in Elderly Cancer Patients

Bisphosphonates Use and Cancer in Elderly Patients

The task forces are producing several published documents:

- *newsletters about the meeting(s) and preparing the guidelines;*
- *abstracts sent in to international conferences;*
- *presentations in programs of scientific meetings;*
- *CD-ROMs containing relevant materials;*
- *monographs with relevant educational topics; and*
- *peer-reviewed published articles with the official guidelines.*

drugs in elderly cancer patients. Other task forces have published guidelines on the use of expensive hemopoietic growth factors in the elderly, and minimum requirements for CGA. Older patients may benefit from chemotherapy to an extent comparable with that of younger patients if some proper precautions are taken. These include selection of the patients on the basis of life expectancy and tolerance of treatment, prophylactic use of hemopoietic growth factors for moderately toxic chemotherapy, adjustment of the first treatment dose to renal function, rapid recognition and treatment of side effects, avoidance of anemia, and the selection

* *www.cancerworld.org/siog*

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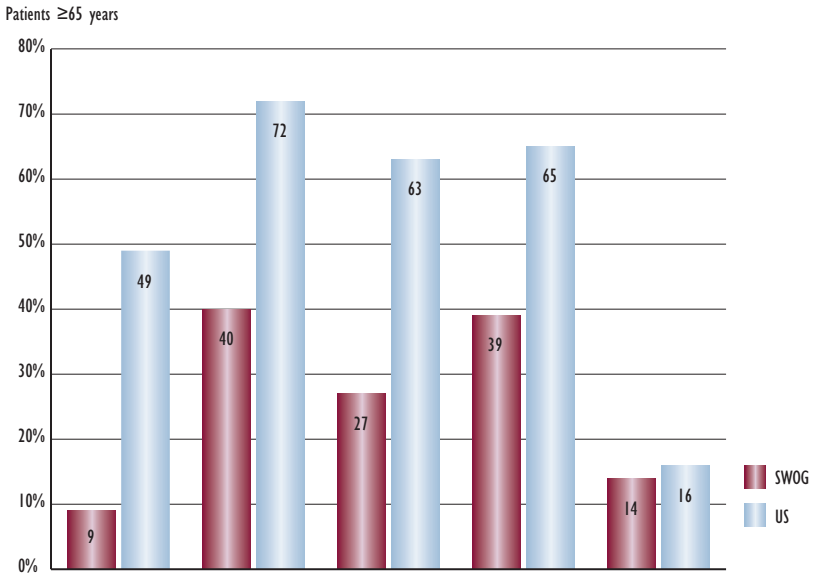
Figure 4: Elderly Patients in SWOG Clinical Trials Versus the US Population



Clinical trials routinely exclude elderly patients (≥65 years). SWOG=South Western Oncology Group.
Hutchins L F et al., "Underrepresentation of patients 65 years of age or older in cancer-treatment trials", N. Engl. J. Med. *(1999);341: pp. 2,061–2,067.*

of agents with a more favorable toxicology profile. The society distributes an official journal, *Geriatric Oncology,* part of *Critical Reviews in Oncology and Hematology*, in which papers on geriatric oncology are regularly published, and its website* contains valuable information, including the slides of previous meetings.

The American Society of Clinical Oncology (ASCO) was awarded an initial grant in January 2001 by the John A Hartford Foundation, Inc., a New York-based foundation that supports medical research for the older population. This has led to the development of educational grants intended to encourage physicians and physicians-in-training to specialise in geriatric oncology. The president of the French Republic has made cancer in the elderly one of the research priorities in France, and the French National Institute of Cancer (INCA) will provide €1 million in grants to promote the development of geriatric oncology research in 2005. Several other countries are constructing oncogeriatric societies within or in collaboration with general oncology organisations. The ASCO and the American Association for Cancer Research (AACR) have initiated task forces to study the issues of cancer and aging, opening dedicated sessions in their annual meetings, and participating in the spread of knowledge worldwide. Special sessions are now also a feature of the European Cancer Conference (ECCO) and the European Society for Medical Oncology (ESMO). International conferences on geriatric oncology have already been held in South America, Asia, and the Middle East, confirming the interest of the international community on the problem.

Geriatric oncology is therefore now an established partner in the fight against cancer. Specific studies have started, and the encouraging news is reflected by the remarkable increase in the number of clinical trials reported in the literature. ■

Further Reading

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