Cancer and ageing:
screening and assessing older persons with cancer

The increase in cancer incidence with advanced age requires new initiatives in evaluation and treatment. A more holistic approach centred on geriatric screening and assessment is essential in daily oncology practice.

Cindy Kenis

Over 60% of all cancers are diagnosed in patients older than 65 years in Europe and the USA. This is expected to rise to 70% within the next 30 years.1,2 About two thirds of cancer deaths are within this age group.3 The management of older patients with cancer has become a major public health concern as a result of the ageing of the world population and the steady increase in cancer incidence with advanced age. The specific characteristics and complex needs of this group of patients require new initiatives to improve the quality of care. This is particularly true as more survivors of cancer live to experience cancer as a chronic disease. The care of older patients with cancer therefore constitutes an important part of the daily clinical practice for oncologists, haematologists, radiation-oncologists, as well as nurses, other professional healthcare workers and family physicians.

Treatment decisions
Although the number of older patients with cancer is steadily increasing, there is not enough information available about the best treatment options, since this group is under-represented in clinical trials.4 Few data exist regarding the risks and benefits of different cancer treatments in the older population, and there are few guidelines that specifically address their evaluation and treatment. The heterogeneity in the ageing process further contributes to the complexity of treatment decisions. Older patients are less likely to receive all types of standard cancer treatments compared to younger individuals.5-9 Possible reasons include concerns regarding increased toxicity, competing causes of morbidity and mortality, ageism, financial constraints, lack of access to care, and the personal preference of the physician or the patient. This may make under- or overtreatment more likely which may influence both the risk of treatment toxicity and survival.10,11 Since chronological age alone represents the ageing process poorly, a systematic and evidence-based way of assessing older persons with cancer is needed in order to guide oncologic treatment decisions.12 A Comprehensive Geriatric Assessment (CGA) can fill this gap.
Comprehensive geriatric assessment in the older population with cancer

This method comprises five consecutive steps and is the main principle of modern geriatric medicine:14

1. Identify patients who can benefit from CGA.
2. Assess these patients.
3. Develop recommendations for geriatric interventions based on the problems detected by CGA.
4. Implement these recommendations in a care plan.
5. Provide follow-up and adjust the care plan with repeated CGA.

Comprehensive geriatric assessment as standard of care

Instead of focusing on the cancer diagnosis only, older persons need a more holistic approach that focuses on a combination of medical, social, functional, cognitive, mental and nutritional needs. Performing a comprehensive geriatric assessment (CGA) is therefore recommended.

CGA is defined as a ‘multidimensional, interdisciplinary diagnostic process comprising five consecutive steps (see box above) focusing on determining an older person’s medical, psychosocial and functional capability in order to develop a coordinated and integrated plan for treatment and long-term follow-up’.15

Since the mid-1990s, treating physicians, in particular oncologists and geriatricians, have tried to integrate the CGA-based approach into daily clinical oncology practice. Since its implementation, CGA in oncology has mainly focused on screening and assessment – the first two steps of the CGA – the term ‘geriatric assessment’ (GA) is, therefore, preferred for this approach in older patients with cancer.15
**Geriatric assessment as a two-step approach**

The main geriatric domains to be assessed in GA are functional status, fatigue, comorbidity, cognition, mental health, social support, nutrition and geriatric syndromes, e.g. dementia, delirium, falls, incontinence, osteoporosis or spontaneous fractures, neglect or abuse, failure to thrive, constipation, polypharmacy, pressure ulcers, and sarcopenia. Various measuring instruments are available to investigate these domains, and the superiority of one instrument over another has not been proven. The choice of a measuring instrument might rely on local preferences and resources available.

The drawbacks of GA include the amount of time it takes for professional healthcare teams. The lack of staff trained to perform GA, even in large academic hospitals and poor financial rewards for performing a GA by health insurance systems are additional barriers. In order to focus on the most vulnerable patients, there is an increasing interest in the use of shorter screening tools to detect older persons who would benefit the most from further GA, which may provide a better insight into the patients’ general health and individual probability of survival, and allow targeted interventions.

Screening tools might also have prognostic/predictive value for important outcome measures such as treatment-related toxicity, functional decline and overall survival. The tool used should be simple and take only a few minutes, while GA may take much longer. High sensitivity and high negative predictive value are the most important characteristics for screening tools in order to identify all patients at risk of adverse outcomes. In addition, a high specificity is of interest in order to limit the number of patients who unnecessarily undergo GA. Commonly used screening tools in the care of older patients with cancer include G8, the Flemish version of the Triage Risk Screening Tool (TTRST) and Vulnerable Elders Survey-13 (VES-13).

In general, consensus guidelines from the European Organisation for Research and Treatment of Cancer (EORTC) and the International Society of Geriatric Oncology (SIOG) consider the two-step approach as a reasonable strategy. This approach starts with the systematic implementation of geriatric screening in all patients aged 70 years or older, followed by GA if the screening indicates a potential geriatric problem. The recommendation to perform this geriatric screening and assessment from the age of 70 is based on evidence that the incidence of geriatric problems increases the most after the age of 70 in older patients with cancer.

**Geriatric screening and assessment in daily practice**

There are several reasons to implement a systematic geriatric screening and assessment in the care of older patients with cancer. They can reveal previously unknown geriatric problems in a large proportion of patients, and alter cancer treatment decisions, either by decreasing or increasing treatment intensity. Geriatric screening and assessment are important for comprehensive and individualised care planning. The most important step is the use of the additional knowledge gathered to set up targeted interventions, e.g. involvement of a dietician or social worker or referral to the geriatric day clinic. Several studies show that geriatric screening and assessment can predict treatment-related toxicity, functional decline or decrease in quality of life. It is important for the healthcare team to know if there is an increased risk of treatment-related toxicity, as this would allow for use of prophylactic measures to decrease this risk, e.g. growth factors, adapted dosing or regimen, or even avoidance of therapy. Finally, most aspects of GA, e.g. cognition, nutrition, functional status, comorbidity, have been shown to be important predictive factors for diminished overall survival. Geriatric screening and assessment can give an approximation of overall survival and life expectancy, which is crucial information in shared decision-making for cancer treatment.

Older persons need a more holistic approach that focuses on a combination of medical, social, functional, cognitive, mental and nutritional needs.
International Society of Geriatric Oncology guidelines

The International Society of Geriatric Oncology (SIOG) was founded in 2000 and is a multidisciplinary society, including physicians in the fields of oncology and geriatric medicine, nurses and other allied health professionals (www.siog.org). Its goal is to foster the development of healthcare teams in the field of geriatric oncology in order to optimise treatment and care of older patients with cancer. There are three strategic directions: education, clinical practice and research. Since 2014, SIOG has a specific interest group for nursing and allied health professionals which reaches out to all nurses and allied healthcare teams that deal with older patients with patients.

SIOG guidelines on geriatric screening tools and geriatric assessment, as well as a recent paper from the Nursing & Allied Health Interest Group, yield the most relevant advice to healthcare teams on implementing a systematic geriatric screening and assessment in daily oncology practice.

Recommendations for nurses and healthcare teams

Healthcare teams need to be watchful for age-related/geriatric aspects in oncology. Geriatric screening and assessment detects many problems related to all geriatric domains, predicts survival and toxicity and influences treatment decisions. However, the implementation of geriatric screening and assessment and the integration of geriatric recommendations and interventions, remain a real challenge in daily oncology practice, in which healthcare teams can play a crucial role.

“It is better to do some kind of imperfect geriatric screening and assessment than to do no screening and assessment at all…”

Cindy Kenis is a geriatric oncology nurse at University Hospitals, Leuven, Belgium. She is also chair of the SIOG Nursing and Allied Health Interest Group. Details of the references cited in this article can be accessed at www.cancernurse.eu/magazine