The Australian population is ageing. It is estimated that between the years 2002-2011, the population aged 65 and over is projected to increase by 30%. Cancer is predominantly a disease of elderly, with more than 60% of new cancer diagnosis and 70% of cancer deaths occurring in the elderly, i.e. ≥ 65 years. The largest increase is seen in the most elderly i.e. those persons ≥ 85 years of age. Medical oncologists will be faced with making treatment decisions for these patients and often the decision to initiate life sustaining but toxic treatment is empirical, based on the physician’s personal judgment and past experiences. It is now well documented that the elderly are less likely to receive chemotherapy and when they do receive chemotherapy it is often dose-reduced, leading to poorer outcomes.1 The majority of studies evaluating the role of chemotherapy in the elderly have found significant and equivalent benefit when compared to their younger counterparts, so chronological age should not be the only factor in treatment decisions.

Oncologists possess a limited set of assessment tools to evaluate functional status of the elderly which assist in making treatment decisions. The most commonly utilised tools include the Karnofsky Performance Score and Eastern Cooperative Oncology Group performance status. Both are brief and easy to perform, but do not provide information beyond physical functionality. They are insensitive to functional decline and do not take mental status or co-morbid conditions into account.

Geriatricians commonly use Comprehensive Geriatric Assessment (CGA), which has been defined as a “multidisciplinary evaluation in which the problems of the elderly are catalogued, need for services assessed and a coordinated care plan developed to focus interventions on the person’s problems”.2 The International Society of Geriatric Oncology has come up with recommendations regarding the use of CGA in older cancer patients.3 The use of CGA has been shown to reduce early re-hospitalisations and mortality in older patients, particularly if linked to geriatric interventions. For example, CGA can be used to identify patients who will tolerate treatment well and those who will require geriatric interventions during treatment. In a study of 363 elderly cancer patients with a median age of 72 years, it has been demonstrated that CGA adds substantial information on the functional assessment of elderly cancer patients, including patients with a good performance status.4

Over the years, there have been several different tools to conduct CGA. Most of them evaluate functional status, co-morbid conditions, cognition, nutritional status, social support, psychological state and concomitant medications.4 These domains of CGA have been briefly described below (Figure 1):

1. **Functional status**
   Functional status predicts survival, chemotherapy toxicity, post-operative morbidity and mortality. Functional status has been traditionally evaluated using activities of daily living (ADL) and instrumental activities of daily living (IADL). ADL takes into account the activities for self care, while IADL assess ability to use tools to remain independent in the society. Functional status can be judged by questionnaire and objective, performance-based measures like “Timed Up and Go”.

2. **Comorbidity**
   Presence of comorbid illness influences tolerance to treatment, as well as increasing morbidity and mortality associated with malignancy. For example, diabetes mellitus is associated with decreased disease specific survival in breast, colon and prostate cancer.4

3. **Cognition**
   Cognition has been shown to influence diagnosis, treatment and survival of malignancy. Folstein’s Mini

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**Abstract**

The population segment that is seeing the most growth is the geriatric population. Oncologists are increasingly facing the problem of how best to treat an elderly patient with cancer. Treatment decisions are mostly empirically based on past experiences. There is an increasing need for geriatric assessment tools that can help a clinician to ascertain whom to offer treatments that have potential for toxicities. Comprehensive Geriatric Assessment is a useful tool but unsuitable for daily clinical practice because of the time constraints. Screening tools that are mostly self-administered have shown early promise in fulfilling the gap.

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**FORUM**

**TOOLS FOR ASSESSING ELDERLY CANCER PATIENTS**

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The population segment that is seeing the most growth is the geriatric population. Oncologists are increasingly facing the problem of how best to treat an elderly patient with cancer. Treatment decisions are mostly empirically based on past experiences. There is an increasing need for geriatric assessment tools that can help a clinician to ascertain whom to offer treatments that have potential for toxicities. Comprehensive Geriatric Assessment is a useful tool but unsuitable for daily clinical practice because of the time constraints. Screening tools that are mostly self-administered have shown early promise in fulfilling the gap.
Mental status examination is commonly used to assess cognitive impairment.4

4. Nutritional status
Unintentional weight loss is an important prognostic factor and adversely impacts outcome after treatment with chemotherapy or radiotherapy. Similarly, obesity is associated with increased mortality in cancer patients.4

5. Social support and psychological state
Social isolation has been shown to increase mortality and depression and is a common finding in elderly patients with cancer. The Hospital Anxiety and Depression scale and Geriatric Depression Scale are commonly used to assess psychological state.4

6. Concomitant medications
Polypharmacy increases the risk of drug interactions and can increase the risk of adverse effects and decrease efficacy of chemotherapy drugs. On average, elderly patients take six concomitant medications, significantly increasing the risk of drug interactions. In a study it was shown that pharmacist consultation could lead to decreased use of concomitant medications with the additional benefit of lower drug expenditure.5

The most important aspect of CGA is identification of a specific problem that leads to an intervention and then regular follow-up. The only drawback of CGA is time constraints. On average it can take between 45 minutes to two hours to conduct CGA for a single patient. This is not always feasible in a busy oncology clinic, hindering adaptation of CGA in routine practice.

There is a growing need for a brief, yet concise screening questionnaire which would not be so time consuming, or which could be self-administered. Hurria et al in a pilot trial evaluated a comprehensive, self-administered questionnaire in elderly cancer patients.5 The mean time to complete this questionnaire was 27 minutes, with 78% of patients completing it without assistance and 90% being satisfied with the questionnaire length. It is now being studied in a larger group of elderly cancer patients in the form of an ongoing prospective trial. The interim results have revealed 250 patients completed the questionnaire and 78% required no assistance. The mean time to completion was 15 minutes and more than 90% of participants were satisfied with the questionnaire.6 There are other screening questionnaires in development and we eagerly await their publication and validation for general use.

Conclusions
There is a growing need for a standardised, validated and brief screening tool to assess elderly patients with cancer. An ideal tool will not only triage patients for treatment, but will prompt geriatric intervention to optimise care for senior adults.

References

Figure 1: The essential domains of Comprehensive Geriatric Assessment