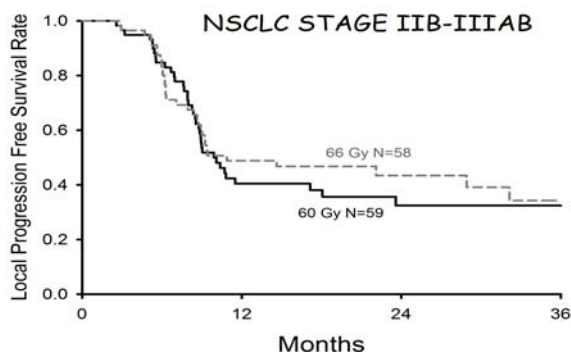


trial.




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### Symposium: Elderly: Health economics

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#### SP-0243

##### Cost-effectiveness data to guide treatment decisions for elderly patients: focus on radiotherapy

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As a disease of the elderly, cancer poses a unique public health problem worldwide. Elderly patients with cancer are less likely to receive guideline-based treatment and/or participate in clinical trials. At the individual patient level, competing risk, perceived efficacy of treatment, and various levels of patient/physician preferences all contribute to heterogeneity in treatment decision-making. At the population level, the economic impact of this variability is significant. Costs incurred in the prevention, diagnosis, treatment and surveillance of cancer are rising at a rate disproportionate to what healthcare systems are able to afford. Cost-effectiveness research can be employed to determine the suitability of radiotherapy in elderly cancer populations through modeling or in the context of clinical trials. Using stereotactic radiotherapy in early stage lung cancer as an example, the principals of cost-effectiveness research will be explored. Concepts such as cost calculations, quality adjusted life expectancy, utilities, and incremental cost effectiveness ratios will be introduced.

#### SP-0244

##### From co-morbidity and toxicity to quality of life: A black hole in economic evaluations of radiotherapy?

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Cancer is increasingly becoming a disease affecting the lives of the elderly, especially in more developed countries. Over the last 30 years, many patients have experienced the mortality lowering benefits of earlier diagnosis and more effective treatments. At the same time, the elderly population is demographically fast increasing, pronouncing even higher prevalence and incidence rates in the near future. Among other co-morbidities, second or third cancers are not an exception any more.

Because of large individual variations in physical and mental conditions and personal preference of the patient and/or family, the treatment decisions seem difficult to fit into guidelines. Inclusion in clinical trials is rare.

Overall, elderly receive (adjuvant) radiotherapy and chemotherapy less often, probably because of fear

for higher rate of complications. In clinical surveys, however, elderly don't suffer from more complications than younger patients, except for cardiac complications and postoperative death. For most tumours relative survival is lower for the elderly, except for patients with colon cancer, prostate cancer or indolent NHL. Co-morbidity seems to have an independent prognostic effect, except for tumours with a very poor prognosis.

Alternative research strategies need to be sought to improve insights on causes of death in this population. Special attention is needed for the economical impact of over- versus under treatment. Both palliative care and complications generate high costs, but reports on costs are rare. Often quality of life surveys are lacking late outcome and decision-making trade offs. Registry based surveys can help insights in population-based decision-making, but are lacking co-morbidity and toxicity data.

Guidelines are needed to reduce over-treatment but also under-treatment, taking into account life-expectancy and co-morbidities in all our cancer patients.

#### SP-0245

##### Is it time to design specific radiotherapy trials for the elderly, and how can we integrate the economic perspective?

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More than 60% of cancer patients is older than 65 years, a figure that only will increase the coming decades. As elderly patients are underrepresented in clinical trials, treatment recommendations for the general population cannot straightforwardly be extrapolated to the elderly.

It is anticipated that intensified treatment regimens are less effective in elderly due to physiologic changes occurring with aging. Furthermore, higher toxicity rates are expected given the high rates of comorbidities and generally poorer performance status. Hence, the balance between the benefits and risks of a treatment will be different for each individual elderly patient: although it is reasonable to spare the patient with severe comorbidities or a bad performance status an intensive treatment from which he is unlikely to benefit and that might even decrease quality of life (QoL), the one that is medically fit may benefit from such an intensive treatment. Furthermore, given the limited life expectancy, QoL and preservation of independence and cognition are important to take into account.

For these reasons, there is an urgent need to design clinical trials specific for the elderly, build evidence to guide treatment selection in this group and implement it in clinical practice. First, reliable tools are needed to distinguish the subgroup of fit patients from frail patients, i.e. those expected to experience important toxicity. Until now, this decision is rather subjective as it is based primarily on the physician's perception whether a patient is deemed fit enough to undergo a certain treatment. Geriatric assessments have shown to be more predictive for survival, dependency and toxicities than age or performance status in elderly treated with chemotherapy (Freyer, Ann Oncol 2005; Hurria, JCO 2011; Maione JCO 2005), but these have not been validated for radiotherapy. The fact that a full geriatric assessment is time consuming and is not always reimbursed makes it difficult to implement in routine clinical practice. Therefore, the EORTC recommends a minimum dataset data (MinDS) to be collected, which takes max 5 minutes to complete (Pallis, Ann Oncol 2011). It is anticipated that this