Valorisation

Older patients encompass a significant proportion of the Dutch population with non-small cell lung cancer (NSCLC), as half of newly diagnosed patients are aged 60-74 years and one in four is aged ≥75 years. Moreover, this proportion is expected to rise even further due to aging of the baby-boom offspring and generation-specific trends in smoking behaviour. However, evidence from clinical trials and treatment guidelines are lacking for the heterogeneous elderly population with NSCLC. Therefore, it is expected that the medical field of geriatric oncology is not prepared for the approaching ‘silver wave’ in daily clinical practice.

This thesis demonstrated population-based trends and patterns of treatment and outcomes from different perspectives regarding elderly. Selected fit elderly can benefit from standard treatment options such as surgery and (concurrent) chemoradiotherapy to the same extent as patients under the age of 70 or those aged 65-74 years. However, it should be borne in mind that older patients are not always willing to undergo intensive treatment and an important proportion of patients is not able to undergo intensive treatment due to poor performance status or comorbid conditions. Important additions to standard care are geriatric assessment and therapeutic training before, during, and after treatment (prehabilitation and rehabilitation). These additions could optimize and personalize treatment decision-making, as well as patient and disease-centered outcomes.

The research papers included in this thesis were presented during several (inter)national conferences in order to share relevant and new insights to other professionals in the research field. At the 16th World Conference of Lung Cancer (WCLC) in Denver, Colorado in 2015, the results of chapter 7 were introduced. The conference of the International Society of Geriatric Oncology (SIOG) was attended in Milan in 2016, where our findings shown in chapter 9 were demonstrated. In 2018, the outcomes of chapter 4 were presented at the SIOG conference in Amsterdam. During the course of this PhD thesis, the results of chapter 2 and chapter 9 were introduced at several meetings of the Dutch Collaboration for geriatric oncology, and chapter 2 and chapter 7 were displayed at invitational conferences of the Oncology Policy Committee in VieCuri Medical Centre. At the annual research symposium in VieCuri Medical Centre, the findings of chapter 2 and 9 were demonstrated in 2016, chapter 7 in 2017, and chapter 4 in 2018.

The external validity of cohort studies in this thesis was high due to the veracious reflection and high generalizability of included patients as compared to the proposed population. As a result, insights from real-life patients and real-life outcomes including survival, treatment tolerance, and physical fitness could be obtained. The primary impact of this thesis focuses on the understanding of treatment patterns in relation to survival among unselected elderly in daily clinical practice. Also, these outcomes can serve for informational and educational purposes, as well as new perspectives for future research objectives. As this thesis includes primarily observational and retrospective data, prospective data are necessary to further elaborate on causal relationships and the effectiveness of treatment options based on patient- and disease-centered outcomes.
Appendices

Special attention is needed for patient accrual in elderly-specific studies, as vulnerability and fear of potential risks often lead to refusal of participation. The older population is expected to expand rapidly in the nearby future, and impactful research is highly needed for these patients with NSCLC.

In summary, the value of this thesis lays in the new insights specific for the older population, thereby informing professionals in this multidisciplinary field regarding patterns of treatment and outcomes among older patients with NSCLC in daily clinical practice. Colleagues in the academic and hospital setting have access to the published papers, providing evidence with scientific integrity as a stepping stone to clinical research and future guidelines. More importantly, these papers can contribute to the conversation regarding treatment perspectives and wishes between physicians and older patients with NSCLC in future clinical practice.