

Quality of life assessment in patients with lung cancer. Clinical implications

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ABSTRACT

Introduction. Lung cancer is the leading cancer-related cause of death worldwide. In Sweden, nearly 3,700 patients are diagnosed with lung cancer every year. The overall prognosis is poor with a 5-year relative survival rate of 13% for men and 19% for women. Malignant pleural mesothelioma is rare, with an annual incidence of 110 patients, and seldom curable. Most patients with lung cancer or mesothelioma are diagnosed with advanced-stage disease and experience multiple symptoms that have a negative impact on their health related quality of life (HRQL). In addition to increased survival, the goals of cancer care include symptom control, psychosocial support and improved or maintained HRQL. In current clinical practice, physicians may underestimate the patients' HRQL problems and it has therefore been suggested that the incorporation of self-administered HRQL assessments in clinical practice could increase the focus on patient well-being.

Aims. To evaluate whether the prospective use of individual HRQL measures in oncology clinical practice would have any influence on patient-physician communication, clinical decision-making, HRQL and satisfaction with care.

Methods and results. We used the European Organization for Research and Treatment of Cancer (EORTC) Core Quality of Life Questionnaire (QLQ-C30) and lung cancer module (LC13) for screening of HRQL issues during consultations.

In Paper I, we investigated the psychometric properties and clinical relevance of the instrument in 112 patients with advanced-stage lung cancer or mesothelioma who were receiving palliative care, but not chemotherapy. The EORTC QLQ-C30 and LC13 proved to be valid, reliable and clinically relevant for evaluation of HRQL in the target population. The clinical validity of the instrument was demonstrated by the associations between specific questionnaire domains and tests commonly used in clinical practice, including lung function and a 6-minute walk test. In addition, most of the QLQ-C30 functioning scores were significantly associated with remaining survival time.

In Papers II-IV, 171 patients were randomized to one of two groups. Patients in the experimental group (EG) answered the QLQ-C30 and LC13 questionnaire using a digital table interface at scheduled outpatient visits, after which a printed summary of the HRQL results was presented to the physician during the consultation. Patients in the control group (CG) completed a paper version of the same questionnaire, which was not presented to the physician but stored for later analysis. When indicated, patients in both groups received palliative chemotherapy and/or palliative radiotherapy. Consultations were audio-recorded for quantitative content analysis. Information about medical and psychosocial interventions was retrieved from clinical records. Issues pertaining to emotional function were more frequently discussed during consultations in the EG ($p < 0.05$). Similarly, interventions to alleviate emotional and social concerns were more common in the EG than in the CG ($p = 0.013$ and $p = 0.0036$, respectively). In addition, perceived psychosocial problems and general symptoms were more likely to be captured during consultations when self-reported HRQL measures were available to the physician. HRQL scores over time were similar across the groups. Emotional function and dyspnoea improved in the whole patient population, with no significant differences between the EG and the CG. In general, patients rated their satisfaction with care as high. Negative predictors included poor health status (most consistently appetite loss), younger age, living alone and older age of the physician at the last visit during the study period.

Conclusions. Access to HRQL measures increases the probability of psychosocial problems and general symptoms being captured during consultations, but does not influence patients' HRQL or satisfaction with care.

Keywords: lung cancer, mesothelioma, health related quality of life, daily clinical practice, satisfaction with care

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Akademisk avhandling

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The thesis is based on following papers:

- I. Nicklasson M, Bergman B. Validity, reliability and clinical relevance of EORTC QLQ-C30 and LC13 in patients with chest malignancies in a palliative setting. *Qual Life Res.* 2007;16:1019-1028
- II. Nicklasson M, Elfström ML, Olofson J, Bergman B. The impact of individual quality of life assessment on psychosocial attention in patients with chest malignancies: a randomized study. *Support Care Cancer.* 2013;21:87-95
- III. Nicklasson M, Elfström ML, Bergman B. Quality-of-life and interaction of self-reported symptoms on consultation contents in patients with chest malignancies. Results from a randomised trial. Submitted
- IV. Nicklasson M, Elfström ML, Bergman B. Satisfaction with care in patients with chest malignancies: predictive factors and outcome of a randomised trial. Submitted



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