CP7 Functional capacity throughout the lung cancer trajectory (Morten Quist + Lærke Winther + Inge Aagaard + Klaus Richter Larsen + Lisbeth Søbæk Hansen)

Background: The most commonly used assessment tool in hospital settings and clinical trials for predicting survival and suitability to treatment, is the Eastern Cooperative Oncology Group Performance Score (ECOG-PS). The rating is largely based on how the disease influences a patient's ability to perform daily activities and their ability of self-care (1) However, the ECOG-PS scale provides a broad and subjective assessment, and contradicting literature is suggesting disagreement about inter-rater reliability in PS assessments which increase the risk of misclassification of suitability to treatment interventions (2) (3). Low level of functional capacity has also shown to be associated with poorer survival (4, 5)

**Aim and objectives**: The aim of this study is to investigate objective measures for functional capacity as predictors for survival and suitability to treatment by investigating the prognostic value and ability to predict suitability to treatment in functional capacity tests in patients with lung cancer.

Design: This study is a prospective observational design

Sample: Newly diagnosed patients >18 years with histologically confirmed NSCLC stage I-IV and SCLC LD, ED who have not received oncologic treatment within the past five years nor had any surgeries four weeks prior to diagnosis. Only patients who are ambulatory and can speak and understand Danish will be considered for inclusion. Power calculations based on the minimal important clinical difference in 6MWT (42 m) with an expected drop-out rate of 50 %, suggests a sample size of 164 patients

**Method**: Functional capacity is assessed in patients with lung cancer pre-diagnosis and at 3, 6, 9 and 12 months post-diagnosis. The tests will be carried out at the hospitals where the patients are treated. 6MWT is performed in a 30-m corridor following the ATS (6) guidelines. Hand-grip strength will be measured with Jamar Hand Dynamometer (7), and sit-to-stand test will be performed as a 30-seconds repetition max (8). Endpoints will be collected through medical records.

**Ethics**: The patients are treated and followed up according to national and institutional guidelines. This protocol does not influence treatment or follow-up.

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