

# Long-term survival of Danish lung cancer patients

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Lung cancer is the main cause of cancer related deaths in Denmark with approximately 4900 new cases each year. Since 2000, the Danish Lung Cancer Registry (DLCR) has monitored interventions and outcome of all Danish lung cancer patients. As part of the fast track diagnose pathway introduced in 2008, multidisciplinary team (MDT) meetings have managed lung cancer care. Despite, improvement in diagnosis and management of lung cancer patients in Denmark, long term survival remains lower than in Norway. 1-year survival for lung cancer patients is similar in Norway and Denmark with 59.7% (women) and 52.9% (men) in Norway and 55.1% for both sexes in Denmark. However, the 5-year survival is 32.5% (women) and 25.6% (men) in Norway, but only 23% in Denmark (2021). The cause(s) for the superior long-term survival in Norway is currently unknown.

Epidemiologic studies have revealed that the prognosis of cancer is related to how the cancer is identified, and where in the healthcare system the patient presents, i.e. routes to diagnosis<sup>12-14</sup>. As lung cancer screening has yet to be enrolled in Denmark, there are three routes to diagnosis; referral from general practice, referral from other department and emergency presentation.

In this study, focusing on non-small cell lung cancer, we aim to validate the Danish Lung Cancer Registry, explore factors relating to long-term survival in Danish lung cancer patients, in order to potentially identify clusters of patients at risk for an adverse outcome. Furthermore, we plan to compare the Danish and Norwegian lung cancer patients and investigate how the route to diagnosis affect long term lung cancer survival.

## Method

Inclusion criteria: Patients that according to the DLCR and the Cancer Registry of Norway (CRN) were diagnosed with non-small cell lung cancer between 2014 and 2016. To validate DLCR, medical records for a sample of the registered lung cancer patients will be obtained. Data will be entered into an encrypted data base (e.g. REDcap).

The research project is conducted from Department of Respiratory Diseases and Allergy at Aarhus University Hospital and began on the 1<sup>st</sup> of January 2022 and over a course of three years.