

Delay in diagnosis and treatment of lung cancer

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ABSTRACT

The PhD study was carried out at the Research Unit for General Practice. The aim was to analyse causes of delay in diagnosis and treatment of lung cancer and to point out areas of improvement.

The first part of the study was a questionnaire study among 1200 Danish general practitioners (GPs) primarily aiming to reveal whether a defeatist attitude towards diagnosis and treatment of lung cancer was common or not. In total 848 GPs (71%) answered the questionnaire. The answers proved no defeatist attitude.

The second part was a case study among patients with histological verified lung cancer. Patients with newly diagnosed lung cancer, who were living in and diagnosed in the County of Aarhus, were identified by county-based pathology registers during six months in 2003.

Patients dying shortly after the diagnosis were included post mortem. The remaining patients were invited to participate after treatment initiation or after the decision not to treat.

Based on medical hospital records and interviews with patients and GPs, delay was measured for all participating patients starting with the time of first symptom until treatment initiation or decision not to treat. Delay was divided into patient delay, delay in primary health care, and delay in secondary health care. Delay within the health care system was further subdivided into doctor delay and system delay. Doctor delay was defined as: time elapsed without investigation of cancer-related symptoms and signs. System delay was defined as: time elapsed due to waiting times related to investigation of cancer-related symptoms and administration.

142 patients fulfilled the criteria of inclusion; 92 patients participated in the study (64.8%). Half of the patients experienced more than three months' delay within the health care system before treatment initiation. The median patient delay was 24 days, the median delay in primary health care was 29 days and in secondary health care 58 days. The median system delay was nearly six times as long as the median doctor delay (75 days and 13 days, respectively). Nearly 20% of the patients had a chest x-ray raising no suspicion of cancer and in primary health care this resulted in a six-fold longer delay. Other important reasons for delay: non-typical symptoms, comorbidity, and diagnostic investigations in outpatient clinic settings not specialised in diagnosing lung cancer.

This thesis proved no defeatist attitude among Danish GPs. Delay in diagnosis and treatment of lung cancer was predominantly system delay. Focus on waiting times is essential if we want to reduce delay. Chest x-rays raising no suspicion of cancer was an important reason for delay, especially in primary health care and it is important that GPs become more aware of the low sensitivity of chest x-ray.