Cancer screening and follow up

Abstract M12 Figure 1
Results 347 patients with lung cancer were identified of which 16 were excluded due to incomplete data collection. The percentage of lung cancer patients who would have been eligible by USPSTF and NLST criteria, together with percentages eligible at various thresholds of the two scores are shown in figure 1. The proportion of patients eligible 2 years prior to diagnosis were 35% for NLST, 46% for USPSTF, 59% for PLCO>1.51% (55–75 year), and 34% for LLP >=5% (55–75 year). 11% of patients would have been <55 years, 31% >75 years and 12%>80 years. 7% of those aged 55–80 years were never smokers.

Discussion The percentage of patients eligible for screening differs widely between potential screening criteria. If screening were available for a 55–75 year target age group, the majority of lung cancer patients would not have been eligible two years prior to their diagnosis using either NLST or USPSTF criteria and at almost all thresholds of the two risk scores.

REFERENCES


M13 MANCHESTER LUNG CANCER SCREENING, TARGETING HIGH-RISK INDIVIDUALS IN DEPRIVED AREAS OF THE COMMUNITY: RESULTS FROM THE FIRST INCIDENCE ROUND OF SCREENING (1 YEAR)

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Background The European position on lung cancer screening (LCS) recommends planning for implementation of low-dose computer tomography (LDCT) screening for lung cancer (LC) to start. The Manchester LCS pilot is one of the first NHS screening implementation programmes to take place and publish results. In this abstract we share results from the first incidence round of screening.

Methods Details of the baseline round of the Manchester LCS pilot have been previously published. In brief, ever smokers, aged 55–74, from deprived areas were invited to a free ‘Lung Health Check’ (LHC) in mobile units located at their local shopping centres. The PLCOm2012 LC risk model was incorporated into the LHCs and those at high risk (PLCOm2012 >=1.51%) were invited for annual screening starting with an immediate LDCT in a co-located mobile scanner. At baseline, 1384 individuals were screened and 3% had LC diagnosed (80% early stage, I-II).

In the second round of screening, the first incidence round, all individuals screened at baseline with no subsequent diagnosis of LC (screening or non-screening) were invited back for an annual LDCT at the same community location. Exclusion included death, other malignancies and CT thorax within 3 months of due screening date. National and GP registries were checked for interval LC diagnosis.

Results A total of 1,194 LC scans were performed as part of the second round of screening. 29 (2.4%) individuals received a positive scan result of which 19 (1.6%) were diagnosed with LC. 79% of LCs were early stage (I-II). The false positive rate was 0.8% of the screened population and 35% of those with a positive scan result. There were no interval LCs diagnosed at one year.

Overall, 61 individuals (4.4%) have been diagnosed with LC (80% early stage) in the first 12 months of the Manchester LCS programme.

Conclusion Annual LDCT screening of high risk individuals in this real world LCS implementation pilot continues to identify a significant number of early stage lung cancers amenable to curative treatment. No interval lung cancers were diagnosed between rounds suggesting the baseline selection criteria for screening was appropriate.

REFERENCE


M14 IMPLEMENTING A LOW DOSE CT SCREENING PROGRAMME FOR LUNG CANCER INTO ROUTINE NHS PRACTICE – THE SOUTH TYNESIDE MODEL

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Our local population has one of the highest incidences of lung cancer in the country with a high proportion of the most deprived socioeconomic quintile. This leads to around a third presenting as emergency admissions often at late stage and hence with poorer outcomes. We wished to improve earlier diagnosis by embedding a low dose CT (LDCT) screening programme for our high risk population into the routine NHS practice within the financial constraints of the current NHS.

The NLST criteria are established but the UK hasn’t implemented these into routine NHS practice with concerns about sensitivity. In mainland Europe it has been shown in long running projects that using COPD and emphysema are independent significant risk factors for lung cancer. Hence we planned to use the established annual COPD review by practice nurses within the GP practice to offer eligible patients a LDCT. Smoking cessation already occurs as a brief intervention in these reviews but the importance was to be again emphasised. A CCG business case was successful with support from the Trust at a cost of £94 per LDCT to include reporting with a standardised report with advice to GPs for the next step. If the LDCT is suspicious of lung cancer the lung cancer physician is informed and patient sent an appointment in the one stop lung cancer clinic. 528 scans were estimated in the 1st year by the business case if uptake was 31%. Face to face training of practice nurses in 6 voluntary GP practices took place alongside production of guidelines and patient information leaflets for 4 month initial feasibility. The full pilot was then rolled out across all GP practices in the CCG area.

Results To date 444 scans have been performed. 3 lung cancers have been diagnosed and 2 other cancers identified. 74 nodules have been picked up and all follow up scans have been requested.

This pilot has demonstrated the feasibility of embedding LDCT screening for lung cancer in a high risk group into routine NHS service without additional funding. Ongoing evaluation is required to establish Health economics, cost effectiveness and patient experience.