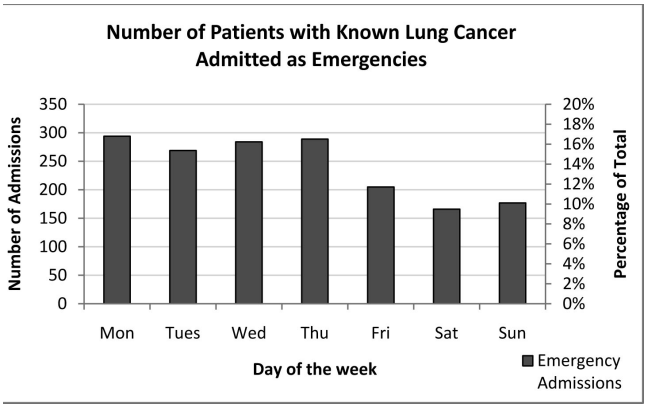
an electronic alert advises selected clinical team members of the attendance, to allow rapid assessment and appropriate management in line with patient's stage of malignancy.

Methods Retrospective data captured by the electronic patient alert system was analysed. Data was from three hospital sites within the same trust, which are together form a tertiary referral centre. Data from March 2010 till April 2012 was included.

Results There were 15,625 cancer attendances in total over the time period, 1,684 were for patients with lung cancer (10.8%). There was no detectable seasonal variation in any cancer group. 1341 of the total cancer admissions occurred during weekdays, averaging 268 patients per named day (12–17% each day) with a fall to approximately 10% at weekends (166 and 177 on Saturdays and Sundays respectively). Overall for lung cancer, 46% (781/1684) of emergency admissions are in-hours (defined Monday to Friday, 9am to 5pm), compared to 42% (6619/15625) of all cancer presentations. Over the whole week, 13% (217/1684) of lung cancer patients arrived before 9am (between midnight and 9am), and 30% (509/1684) arrive after 5 (between 5pm and midnight). Approximately a quarter (24%= 410/1684) of emergency lung cancer attendances occurred between 5pm on Friday and 9am on Monday. Conclusion. This information would indicate that a substantial proportion of unscheduled lung cancer work occurs out-of-hours. To optimise patient care and prevent attendances there may be justification for exploring alternative ways of working to improve cover in late afternoon and early evening when there is increased patient attendance so that these alerts can be received and acted upon rapidly. These data suggest that increased community support is needed especially at weekends.



Abstract P162 Figure 1

P163 EFFECTS OF SOCIO–ECONOMIC STATUS ON LUNG CANCER STAGE AND MORTALITY – NORTH-WEST PERSPECTIVE

doi:10.1136/thoraxjnl-2012-202678.224

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Background Lung cancer prevalence and mortality has been shown to be higher in the lower socio-economic group in England and Wales.[1] Northwest of England has one of the highest density of economically deprived regions in the country. Our institution caters to a population of approximately 330,000 in one of the poorest regions of Northwest England. We aimed to analyse the effect of socio–economic status on lung cancer staging on presentation and mortality in our patient cohort.

Methods – All patients with newly diagnosed lung cancer patients between 1st Jan–31st Dec 2011 were included in this cross sectional study. Patient data was accessed from our local lung cancer database. Deprivation score as detailed by index of multiple deprivation (IMD) of our cohort were obtained from the local council.

Results – Our socioeconomic postcodes showed that there were no patients from the top 10th centile postcodes of the country in our catchment. However, 37% (93) were in the lowest 20th centile compared to 20% nationally [(2)]. The disease staging and mortality for top and bottom quartiles is shown in Table 1.

Of 249 patients, 113 (45%) were females. Mean age was 72.4 years (Range 40–97). On diagnosis, 57 (23%) patients had stage 3 and 139 (56%) had stage 4 disease. 162 (65%) of patients died with an average survival after diagnosis of only 62 days (range 31.25– 148.5 days).

Conclusions – No significant differences were noted in lung cancer incidence or mortality across socio-economic ends in our local population. Noticeably, there was a high incidence of patients with extensive stage cancer reflecting high mortality. This late presentation may be a reflection of poor health awareness amongst our deprived population belt. A longer study may give us an idea of which areas to target for further education and improvement.

References

1. UK Lung cancer registry, 2011.
2. Cancer incidence and mortality, Office for National Statistics.

Abstract P163 Table 1 Staging and mortality in patients with lung cancer from different socio-economic backgrounds

Stage	< 25TH centileof IMD (n-63)	>75TH centile Of IMD (n=63)
1	10	5
2	3	5
3	18	16
4	32	37
Death	40	31

P164 LUNG CANCER SURVIVAL IN ENGLAND: WHICH PATIENTS HAVE DEMONSTRATED IMPROVED SURVIVAL?

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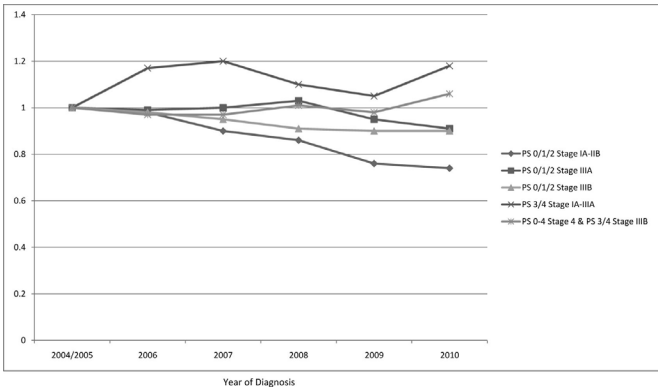
Introduction Several recent studies have reported the overall survival of patients with lung cancer in England is improving. However, when compared with other European and North American countries, England still has worse survival figures. The aim of this study is to look at the spectrum of people with lung cancer and to identify groups in which the survival is improving.

Methods We used data from the National Lung Cancer Audit to identify patients with a proven or presumed diagnosis of non-small cell lung cancer in England. We stratified patients according to their performance status (PS) and clinical stage of cancer. We then divided patients into 'year groups' based on their year of diagnosis. People diagnosed in 2004 and 2005 were grouped together and used as our comparator group. We performed Cox regression analyses to calculate the changes in overall survival for patients diagnosed each year between 2004/05 to 2010.

Results Our cohort consisted of 66,433 patients diagnosed between January 2004 and December 2010. Based on the stratification by stage and PS, we observed that having adjusted for confounders including sex, age, ethnicity, comorbidity and source of referral, the overall survival for patients in group 1 (patients with good PS and stage IA-IIB) has improved every year (adjusted HR 0.74 in 2010, 95% CI 0.68 – 0.82), while the survival for patients in

groups 4 and 5 (i.e. patients with poor PS and stage) has remained essentially stable (see figure 1).

Conclusion Our results demonstrate that survival has improved for limited groups of patients with lung cancer over the last 6 years. Stratification by clinical stage and PS has shown that survival is improving for patients with early stage cancer and good PS. Further research is required to investigate why this improvement has occurred, and to ensure all patients have equal access to advances in lung cancer care. Increasing the proportion of patients in this subgroup, with good PS and early stage disease, will also improve our survival figures.



Abstract P164 Figure 1 Adjusted hazard ratios of overall survival by year

P165 SURVIVAL OF PATIENTS WITH LUNG CANCER DIAGNOSED AT A TEACHING HOSPITAL IN LONDON, UK BETWEEN 2000 AND 2010

doi:10.1136/thoraxjnl-2012-202678.226

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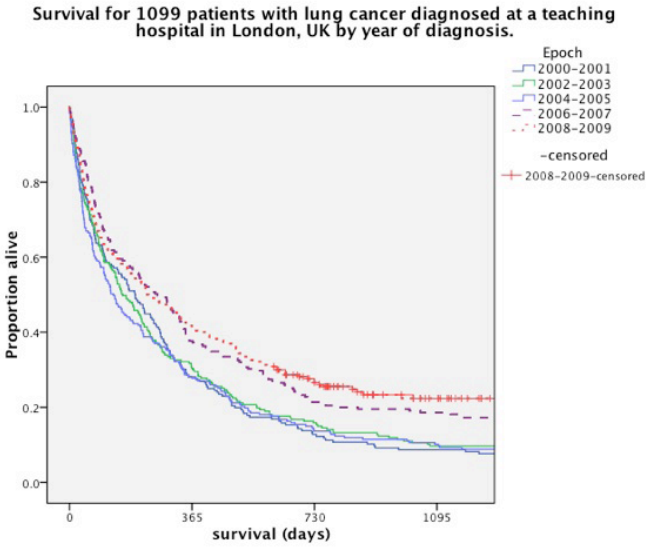
Background Significant resources have been applied to improving outcomes for patients with lung cancer. Here we analyse trends in survival for patients diagnosed at our institution between 2000 and 2011.

Methods All patients with suspected intra-thoracic malignancy were discussed at a weekly multi-disciplinary meeting and logged in a bespoke database. Relevant diagnostic and staging parameters were recorded. Data items were defined according to the specifications of the Lucada dataset. Patients were grouped into sequential 2 year epochs according to the date they were first seen. Analysis was restricted to the major cell types; squamous cell, adenocarcinoma, small cell and probable lung cancer unknown histology, first seen between January 1st 2000 and January 1st 2010. Survival time was censored on the 1st September 2011. Univariate analyses with survival as the dependent variable included age group, sex, histological cell type, stage, performance status and epoch used the Kaplan-Meier technique. Multivariate analyses used Cox's proportional hazards model.

Results 1105 patients met the entry criteria and vital status was firmly ascertained for 1099 (99.5%). The median age was 71 years (range 32 – 96). 698 63.5% were men. Median survival increased from 195 (95% CI 148,242) days to 231 days (95% CI 151,311) $p<0.001$. In the 2000–1 cohort it took 412 days for 75% of the patients to die, in 2009–10 it took 839 days. In univariate analyses there were significant differences in survival in relation to all the variables. Patients with adenocarcinoma lived longer than other cell types. In multivariate analyses age group, epoch, stage and performance status but not histology and gender remained independent predictors of survival. Histology was confounded by epoch.

Discussion These data suggest that survival for patients with lung cancer has improved over the last few years. Patients with adenocarcinoma live longer than patients with other cell types. Elsewhere we have shown that the proportion of patients with adenocarcinoma has increased in our cohort with time. Taken together these data suggest that increased longevity of lung cancer patients may be in part due to a shift towards adenocarcinoma cell type but also another factor that has occurred more recently.



Abstract P165 Figure 1

P166 ROLE OF BRONCHOSCOPY IN PATIENTS WITH HAEMOPTYSIS AND A NORMAL CT SCAN

doi:10.1136/thoraxjnl-2012-202678.227

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Aims and Objectives To investigate the merits of conducting bronchoscopies in patients with haemoptysis and normal or non-diagnostic CT scan.

Methods Using the in-hospital bronchoscopy reporting tool, a retrospective analysis was carried out of the bronchoscopies performed on patients with haemoptysis but non-diagnostic CT scan.

Results Between September 2008 and December 2011, a total of 450 bronchoscopies were performed. After excluding the patients with CT scan abnormalities which could explain the haemoptysis, medical notes of the remaining 99 patients were analysed. Out of these, 74 patients had a significant smoking history. 79 bronchoscopes were normal with the remaining 20 examinations revealing benign pathologies. These included generalised erythema, inflammation, purulent secretions and cartilagenous nodules. No new diagnosis of malignancy was made.

Conclusions Results of our study suggest that a normal CT scan examination has a high negative predictive value for lung cancer.