Abstract P168 Table 1 Associations of age, gender, mode of referral and socioeconomic group with advanced stage of disease at diagnosis

| | Late stage disease (N) | Early stage disease (N) | OR (95% CI) | P |
|---|---|---|---|---|
| **Age group (years)** | | | | |
| <60 | 42 | 11 | Reference | 0.027 |
| 60–69 | 98 | 27 | 0.95 (0.43–2.09) | |
| 70–79 | 104 | 51 | 0.55 (0.33–0.92) | |
| >80 | 81 | 46 | 0.58 (0.36–0.92) | |
| **Gender** | | | | |
| Male | 196 | 66 | 1.59 (1.06–2.38) | 0.016 |
| Female | 129 | 69 | Reference | |
| **Mode of referral** | | | | |
| Emergency | 111 | 32 | 1.92 (1.19–3.10) | 0.008 |
| Community | 141 | 78 | Reference | |
| **Deprivation quintile** | | | | |
| Most affluent | 67 | 25 | Reference | 0.72 |
| 2 | 65 | 24 | 1.01 (0.52–1.95) | |
| 3 | 60 | 32 | 0.70 (0.41–1.19) | |
| 4 | 60 | 28 | 0.90 (0.53–1.51) | |
| Most deprived | 65 | 25 | 1.11 (0.67–1.87) | |

## P169 INVESTIGATING THE IMPACT OF SOCIAL DEPRIVATION IN LUNG CANCER PATIENTS IN NORTH GLASGOW

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**Introduction** Lung cancer incidence and mortality rates are highest in the most deprived regions of Scotland. Glasgow has the highest incidence rate for lung cancer in Scotland at 92.8 people per 100, 000 population and the highest mortality rate at 75.4 people per 100, 000 population. The DEPCAT score is a well-validated index of deprivation unique to Scotland, based on post code. DEPCAT categorises deprivation into groups 1 (most affluent) to 7 (least affluent). We investigated social deprivation in North Glasgow and its relationship to lung cancer presentation, investigation, treatment, and mortality.

**Methods** All patients with lung cancer diagnosed in North Glasgow in 2009 and 2010 were prospectively recorded in a registry. We investigated prevalence, stage at presentation, performance status, attempts at tissue diagnosis and treatment administered with the DEPCAT score.

**Results** 1190 patients were diagnosed with lung cancer in the study period and clinical details were recorded at a multidisciplinary meeting. DEPCAT was available in more than 99% of patients. 61% of patients were from the most deprived categories (6 and 7).

Lung cancer was more prevalent in deprived areas (Table 1). Stage at presentation was not different based on social deprivation, but patients from deprived areas had a poorer performance status at presentation (PS 0–1 DEPCAT1–2: 58% vs DEPCAT 6–7:40%).

While there was no difference in whether tissue diagnosis was attempted, fewer patients from DEPCAT 6–7 underwent surgery or radical radiotherapy and more of this group were treated with best supportive care (Table 1).

There was a trend to better median survival in more affluent groups, but confidence intervals were overlapping.

**Conclusions** We found that the prevalence of lung cancer was higher in more deprived areas, in keeping with previous studies, and that these patients had a worse performance status at diagnosis despite similar stage of disease at presentation. Although there was no difference in pursuit of tissue diagnosis, fewer patients from more deprived areas underwent curative treatment. These differences in lung cancer diagnosis and management could be attributable to higher rates of co-morbidity in areas of lower socio-economic class.

Abstract P169 Table 1

| | | 1–2 | 3–5 | 6–7 |
|---|---|---|---|---|
| n | | 108 | 356 | 718 |
| Male sex, n (%) | | 56 (51) | 180 (51) | 357 (50) |
| Age, mean (SD) | | 72 (10) | 71 (10) | 70 (10) |
| Prevalence (per 1000 patients) | | 1.2 | 1.4 | 2.4 |
| Stage at presentation, n (%) | | | | |
| | 1 | 20 (19) | 45 (13) | 100 (14) |
| | 2 | 6 (6) | 34 (10) | 55 (8) |
| | 3 | 33 (31) | 98 (28) | 214 (30) |
| | 4 | 49 (45) | 179 (50) | 349 (49) |
| Performance status, n (%) | | | | |
| | 0 | 18 (17) | 45 (13) | 68 (10) |
| | 1 | 44 (41) | 119 (33) | 216 (30) |
| | 2 | 20 (19) | 106 (30) | 207 (29) |
| | 3 | 12 (11) | 48 (14) | 125 (17) |
| | 4 | 5 (5) | 10 (3) | 33 (5) |
| | Not recorded | 9 (8) | 28 (8) | 69 (10) |
| Tissue diagnosis attempted, n (%) | | 92 (85) | 298 (84) | 597 (83) |
| Treatment, n (%) | | | | |
| | Best supportive care | 27 (25) | 95 (27) | 242 (34) |
| | Palliative XRT | 31 (29) | 87 (24) | 164 (23) |
| | Chemotherapy | 21 (19) | 103 (29) | 183 (26) |
| | Surgery/radical radiotherapy | 29 (27) | 71 (20) | 129 (18) |
| Median survival, median days (95%CI) | | 210 (124–296) | 173 (142–204) | 155 (130–180) |

## P170 CHANGES IN THE EPIDEMIOLOGY OF LUNG CANCER IN A HOSPITAL IN LONDON, UK BETWEEN 2000 AND 2012

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**Background** Changes in the epidemiology of lung cancer could have important implications for treatment and prognosis. International studies have suggested adiminishing gap between the incidence of lung cancer in men and women and an increasing proportion of adenocarcinomas.[1] We examined our own cohort of patients from a teaching hospital in south London UK to see whether these observations could be replicated.

**Methods** All patients with suspected intra-thoracic malignancy were logged in a bespoke database. Relevant parameters were recorded. Data items were defined according to the specifications of the Lucada dataset. Stage was coalesced into "Early" (1–2a), "locally advanced" (3a, 3b) and advanced (4). Analysis was restricted to the major cell types squamous cell, adenocarcinoma, small cell and



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Abstract P170 Table 1 Histology for 1350 patients with lung cancer diagnosed at a London hospital between 2000 and 2011

| | squamous cell carcinoma | | adenocarcinoma | | small cell tumour | | probable cancer-unconfirmed histologically | | Total n | Total % |
|---|---|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % | | |
| 2000–2001 | 94 | 47% | 42 | 21% | 24 | 12% | 38 | 19% | 198 | 100% |
| 2002–2003 | 88 | 38% | 46 | 20% | 35 | 15% | 60 | 26% | 229 | 100% |
| 2004–2005 | 76 | 33% | 52 | 23% | 34 | 15% | 67 | 29% | 229 | 100% |
| 2006–2007 | 82 | 38% | 64 | 29% | 26 | 12% | 45 | 21% | 217 | 100% |
| 2008–2009 | 75 | 32% | 89 | 38% | 20 | 9% | 48 | 21% | 232 | 100% |
| 2010–2011 | 59 | 24% | 111 | 45% | 26 | 11% | 49 | 20% | 245 | 100% |
| **Total** | **474** | **35%** | **404** | **30%** | **165** | **12%** | **307** | **23%** | **1350** | **100%** |

Chi-square P<0.001

probable lung cancer unknown histology, first seen between January 1st 2000 and January 1st 2012. We analysed age, sex, histological cell type, stage and performance status by epoch. The results were tabulated and examined visually and using the chi-square test. Age was examined using one-way Anova. We used SPSS for MAC V19.

**Results** One thousand three hundred and fifty patients met the entry criteria. Variables were distributed as follows; 839 men (62%), median age 71 years (inter quartile range 61–78), squamous cell 474 (35%), adenocarcinoma 404(30%), small cell (12%), probable cancer unconfirmed histologically 307(23%). early stage 234 (17%), locally advanced 366 (27%), advanced 620 (46%), not staged 130 (10%). Performance status 0–262 (19%), 1–38829(%), 2–290 (21%), 3–213 (16%), 4–111 (8%), not staged 86 (6%).

The proportion of patients with squamous cell carcinoma decreased from 47% to 24% and the proportion with adenocarcinoma increased from 21% to 45% (p<0.001). The proportion of patients with lung cancer who were women rose from 28% to 44% (p=0.02). No temporal changes were seen in the other variables.

**Discussion** There have been dramatic changes in the epidemiology of lung cancer in our hospital over a 12 year period. The significance of these changes for treatment and prognosis should be explored.

1. Devesa SS, Bray F, Vizcaino AP, Parkin DM. International lung cancer trends by histologic type: Male: Female differences diminishing and adenocarcinoma rates rising. *International Journal of Cancer* 2005; 117(2):294–99.

## P171 A RETROSPECTIVE STUDY OF CHANGING PERFORMANCE STATUS AND STAGING IN ALL PATIENTS PRESENTING WITH LUNG CANCER TO THE NORTHERN HEALTH AND SOCIAL CARE TRUST OVER THE PAST DECADE

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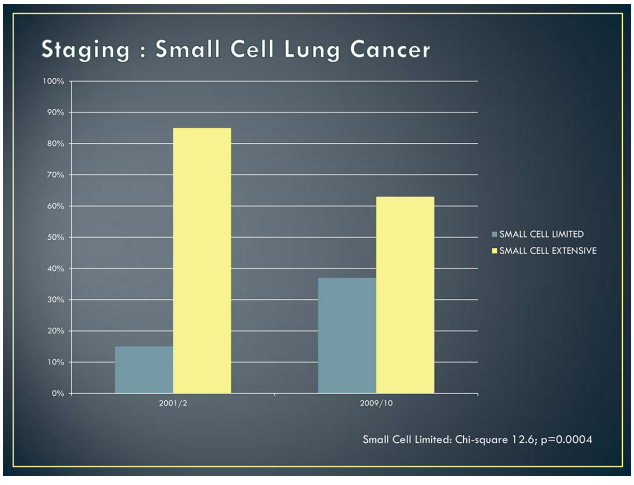
Lung cancer resection rates have become more controversial as the publication of the national lung cancer audit has shown such geographical variation and then national improvement over a small number of years. This could be due to differences in patients, disease, recording of information or real differences in treatment. As well as initiatives to optimise treatments of patients after they present, there have been efforts to encourage patients to present earlier such as the national awareness early diagnosis initative.

**Aim** To assess if patients presenting with Lung Cancer in the Northern Trust are different in performance status or stage to those presenting a decade ago.

**Methods** We used previously published data (BTS, Winter 2003) to compare patients from 2001/2002 with patients from 2009/2010 (data collected from the Regional Northern Ireland Cancer Patient Pathway System). The catchment area over this ten year period had increased from 350,000 in 2001 to 450,000 in 2010 as the Causeway hospital has since been included. We compared numbers presenting, patient demographics, performance status at presentation, histology and staging.

**Results and Conclusions** A total of 563 patients were studied. Allowing for the change in population served by the MDT, similar numbers of patients presented each year with similar demographics. The histology of the groups was also similar however more patients are now being given a histological diagnosis rather than a clinical diagnosis. Our data also showed that patients were presenting at a statistically significant earlier stage of disease for both Small Cell Carcinoma (chi-square, p=0.0004) and Non-Small Cell Carcinoma (chi-square, p=0.01). Patient Performance Status at presentation had statistically improved between 2001 and 2010 (chi-square, p=0.01). We also found a non-significant trend of higher surgical referral rates in 2010 compared to 2001. These results may well vary with geography and might be improved by further health promotion in the future.




Abstract P171 Figure 1



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