Identifying Patients Who Had Surgical Resection for Non-Small Cell Lung Cancer Using Large Datasets

**P13**

**Abstract P13 Table 1. Potential risk factors for Hospital Admission**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>NS</td>
</tr>
<tr>
<td>Sex</td>
<td>P = 0.09</td>
</tr>
<tr>
<td>Comorbidity score</td>
<td>NS</td>
</tr>
<tr>
<td>Stage</td>
<td>NS</td>
</tr>
<tr>
<td>Small cell vs. NSCLC</td>
<td>NS</td>
</tr>
<tr>
<td>Central vs. Peripheral tumour</td>
<td>NS</td>
</tr>
<tr>
<td>Presence or absence of pleural effusion</td>
<td>NS</td>
</tr>
<tr>
<td>Presence or absence of metastases</td>
<td>NS</td>
</tr>
</tbody>
</table>

Epidemiology

**P13**

Identification of Patients Who Had Surgical Resection for Non-Small Cell Lung Cancer Using Large Datasets

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Introduction

Surgical resection rates have become an important indicator of NHS Trust performance and efforts to increase them are on-going with the aim of improving overall survival. The National Lung Cancer Audit (NLCA) has collected data on primary lung cancer since 2004 and has now been linked with Hospital Episode Statistics (HES) for research into inequalities in access to treatment. How well these two large datasets capture surgical data is not known.

Methods

We used the NLCA to identify all cases of NSCLC, excluding stage IIIB or IV, diagnosed between January 2004 and March 2010. We calculated the proportion of cases with a procedure date in the NLCA, and the proportion with a code in HES, for potentially curative surgery less than 6 months after or within 3 months of diagnosis. We looked at the age, lung function, performance status, stage and survival according to where surgery was recorded. Given the increase in NLCA case ascertainment from approximately 19% in 2004 to 98% in 2009 we also looked for changes in our results over time.

Results

There were 60,196 people in the NLCA who met the inclusion criteria; 8,535 (14%) had a record of surgery in both databases. An additional 2,568 (4%) had a record of surgery in HES only and 795 (1%) in the NLCA. The features of people who had surgery in HES only or the NLCA only were similar, however median survival was shorter, and the proportion that died soon after surgery was higher, in the NLCA only group compared with those with surgery records in both databases (Table 1). The proportion with HES only records of surgery decreased from 6% (n = 215) in 2004 to 3% (n = 367) in 2009; the patterns of survival each year were similar to the overall results.

Conclusion

The proportion of people who had potentially curative surgery differed according to the database used to identify surgical procedures. There are many possible explanations for our results; however use of either database alone is likely to under-estimate the proportion of people who had surgery and this should be taken into account in studies investigating access to surgery.

Small-Cell Lung Cancer in England: Trends in Survival and Therapy

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Poster sessions
Background The purpose of this study was to identify trends in survival and chemotherapy use, during the duration of the National Lung Cancer Audit (NLCA), for individuals with small-cell lung cancer (SCLC) in England.

Methods We used data from the NLCA database to identify people with histologically proven SCLC from 2004 to 2009. We used Hospital Episode Statistics (HES) database and NLCA to identify patients with codes of receiving chemotherapy, while NLCA was used to identify radiotherapy. We calculated the median survival by stage and observed the changing patient features of the cohort. We also looked at the proportions of patients with records of chemotherapy and/or radiotherapy over the years.

Results 11,603 patients were diagnosed with SCLC in our cohort. The median survival was 6 months; 1 year for limited stage and 4 months for extensive stage. 70% received chemotherapy and this proportion did not change overtime. Patient features including sex, age and performance status remained stable throughout the years (p-value 0.25, 0.93 & 0.08 respectively). There has been an increase in the proportion of patients that had a record of receiving chemotherapy and radiotherapy each year in both limited and extensive stage disease (from 19% to 36% in limited & from 10% to 17% in extensive stage from 2004 to 2009) (table 1). Patients who had a record for chemotherapy and radiotherapy had better survival in days compared with those who received only chemotherapy or no treatment independent of stage (334 days for chemotherapy & radiotherapy vs. 240 days for chemotherapy alone, 82 days for radiotherapy alone & 25 days for no treatment).

Conclusion Since 2004, when the NLCA was established, the recorded use of chemotherapy and survival in days has remained static. We have found an increasing trend in patients receiving chemotherapy & radiotherapy which corresponds to better survival compared with other treatments. We were unable to see if these patients received these therapies for palliative or curative purpose; however the new chemotherapy and radiotherapy database soon to be linked with the NLCA would be better suitable to answer these questions.