

Recent trends in resection rates among non-small cell lung cancer patients in England

NCIN Data Briefing

Introduction

Lung cancer resection rates are low in England, but reports have indicated an increase in recent years. We analysed the trends in surgical resection for non-small cell lung cancer by age, sex, socioeconomic deprivation and surgical procedure in England between 1998 and 2008.

Results

The proportion of non-small cell lung cancer patients undergoing surgery increased from 8.8% in 1998 to 10.6% in 2008. The proportions of patients undergoing a surgical resection for non-small cell lung cancer by age in each year are depicted in Figure 1. Smaller proportions of older patients underwent surgery. However, increases in the proportion of resected patients over the 11-year time period occurred predominantly in the older age groups.

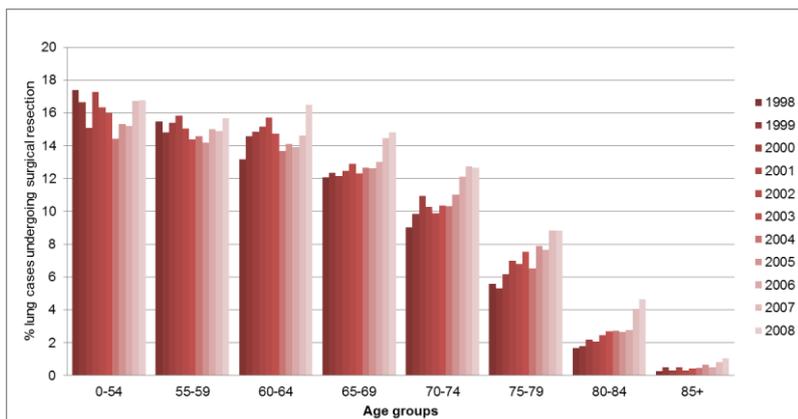


Figure 1: Proportion of non-small cell lung cancer patients undergoing surgical resection by age group and year, England 1998-2008.

large decrease in pneumonectomies and increases in the rate of lobectomy, wedge and sleeve resections.

We also examined the effect of age on the type of surgical procedure. With every five-year increase in age, patients were 12% less likely to undergo pneumonectomy, 0.25% less likely to undergo a sleeve resection and 8% more likely to undergo a wedge resection when compared to lobectomy.

Methods

Data on 286,217 non-small cell lung cancer patients diagnosed between 1998 and 2008 were extracted from the National Cancer Repository Dataset and information on surgical resection for these patients was retrieved from linked Hospital Episode Statistics records.

We used logistic regression to calculate the odds of undergoing surgery per one-year increment by age, sex, socioeconomic deprivation and surgical procedure. We also assessed the odds of undergoing a pneumonectomy, wedge resection, sleeve resection or other limited surgical procedure compared to lobectomy per five-year age increment.

KEY MESSAGE:

Lung cancer resection rates have increased in England between 1998 and 2008.

The increases were found to particularly affect the older age groups.

Figure 2 shows the increase was slightly more pronounced among females than males, was evident in all but the youngest age groups and was particularly pronounced among the oldest age groups. The increase did not vary by socioeconomic deprivation. The type of surgical procedure showed a

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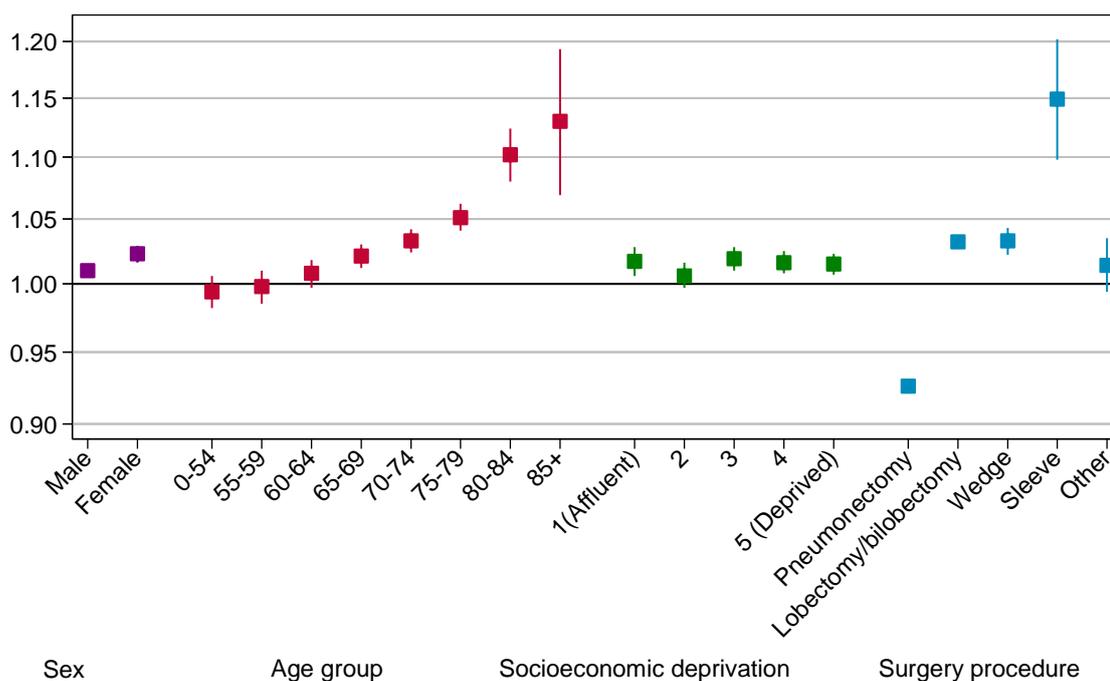


Figure 2: Odds ratios and 95% confidence intervals of the time trend in surgical resection per one-year increment for non-small cell lung cancer patients diagnosed in England 1998-2008.

Conclusion

Resection rates among non-small cell lung cancer patients have increased in England in recent years and this increase occurred mainly in patients over the age of 65.

Acknowledgement

This data briefing is based on the following publication: Sharma P Riaz, Karen M Linklater, Richard Page, Michael D Peake, Henrik Møller and Margreet Luchtenborg. Recent trends in resection rates among non-small cell lung cancer patients in England. *Thorax* (2012). doi:10.1136/thoraxjnl-2012-201768. <http://www.ncbi.nlm.nih.gov/pubmed/22707523>

FIND OUT MORE:

[Thames Cancer Registry](#)

Thames Cancer Registry is the lead cancer registry for lung cancer and mesothelioma

<http://www.tcr.org.uk>

Other useful resources within the NCIN partnership:

Cancer Research UK CancerStats – Key facts and detailed statistics for health professionals

<http://info.cancerresearchuk.org/cancerstats/>

The National Cancer Intelligence Network is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research. Sitting within the National Cancer Research Institute (NCRI), the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.