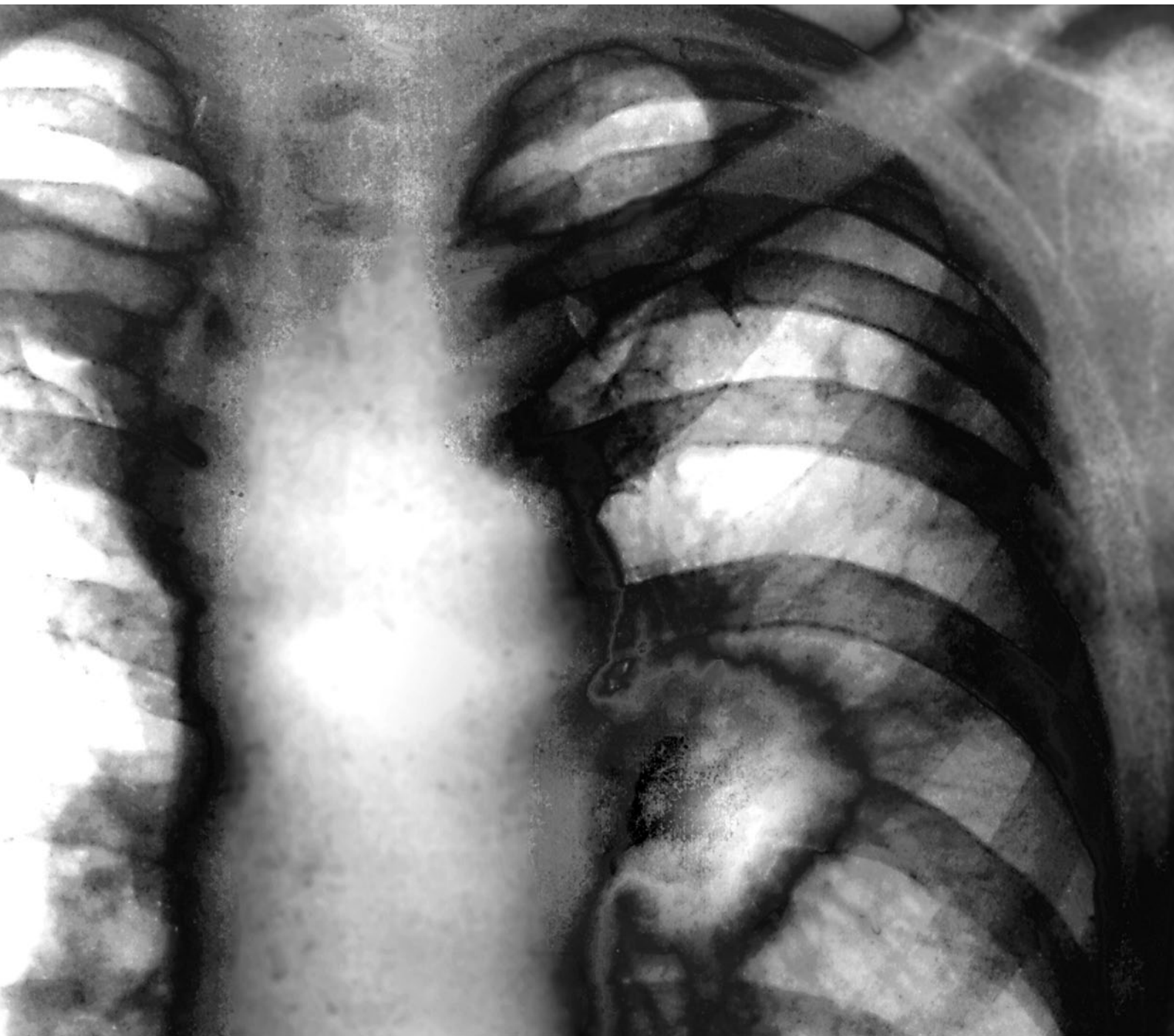
# National Lung Cancer Audit Report 2013

Report for the audit period 2012



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# National Lung Cancer Audit Report 2013

Report for the audit period 2012

# Contents

# Acknowledgements

The National Lung Cancer Audit (NLCA) Project Team, Mick Peake, Paul Beckett, Ian Woolhouse, Roz Stanley, Kimberley Greenaway and Anne Cerchione, would like to thank all the organisations that have made this report possible. These include the Healthcare Quality Improvement Partnership (HQIP), The Royal College of Physicians (The RCP), The Health and Social Care Information Centre (HSCIC), The University of Nottingham, The Cancer Information System Cymru (CaNISC), Informing Healthcare (Wales), Welsh Cancer Intelligence and Surveillance Unit (WCISU), South-East Scotland Cancer Network (SCAN), North of Scotland Cancer Network (NoSCAN), West of Scotland Cancer Network (WoSCAN), The Northern Ireland Cancer Patient Pathway System (CaPPS), The Northern Ireland Cancer Network (NICaN) Lung Group, The Northern Ireland Cancer Registry (NICR), funded by the Northern Ireland Public Health Agency (PHA), The Cancer Information Centre Southampton University Hospitals NHS Trust, Rebecca Sherrington, Clinical Nurse Specialist and Dr W. Anees, Consultant Physician, Princess Elizabeth Hospital, Guernsey. Thanks must also go to all the lung cancer teams who have contributed data to the audit as without their considerable efforts this report would not be possible.

# Purpose

The purpose of this document, the ninth Annual Report of the National Lung Cancer Audit, is to summarise the key findings of the audit for patients diagnosed with lung cancer who were first seen in 2012. The history, purpose and methodology of the audit have been extensively documented and further details can be obtained from the HSCIC website (www.hscic.gov.uk/lung).

Based on the comments of service users we have updated this short report highlighting key issues. More extensive analyses on the 2012 data, including case-mix adjusted data in an electronic spreadsheet format will be available from the HSCIC website in due course.

Every Trust or Health Board in England and Wales and Scotland have participated in the audit, although because of differences in reporting schedules, standards and targets the Scottish data are tabulated separately. Guernsey has also participated in the audit. Unfortunately, the Northern Ireland data was not available in time to be included in this report and therefore will be published electronically at a later date. Details of care provided by individual organisations in this report are based on "place first seen" in secondary care. Place first seen is chosen since in the vast majority of cases it represents the location of the Multi-Disciplinary Team that co-ordinates the investigation and treatment of the individual patient. As a result some tertiary centres may appear to have little input into the care of lung cancer and to submit little data to the audit, however, on the contrary, they usually provide the most complex care for the most difficult patients and submit treatment data on behalf of other Trusts. Information about the number and types of treatment provided by these Trusts is provided in Figure 10.

The data collected in this report is for patients first seen in the calendar year 2012. At this time the Cancer Networks were still in place and responsible for helping to facilitate cancer services in the areas they served therefore the audit has decided to report by Network for this year. Moving forward into 2013 the report will be modified to reflect the new commissioning structures. The NLCA Project Team would like to take this opportunity to thank colleagues who were employed by Cancer Networks for their invaluable support of the audit, often over many years. This has undoubtedly contributed hugely to the progress that the audit has made in improving lung cancer care.

Note that all data presented in this report refers to cases submitted to the National Lung Cancer Audit unless otherwise stated.

# Changes to the Report Format

A major change for this year is that the data completeness reports for key items are available in online format only. Data completeness reporting was key in the early years of the audit because achieving a high enough standard of data to allow the reporting of clinical outcomes was the main focus. As the standard of data is so much higher than in recent years, this report can now focus more on clinical outcomes and uses of the data. Data completeness and quality is still key to the ongoing success of the NLCA and we would encourage audit participants to view their data at www.hscic.gov.uk/lung

A further change for this year is that we have excluded mesothelioma from the main report. Information about patients with mesothelioma will be published in PDF format at a later date. Where appropriate, at the bottom of the Key Outcome Tables, headline comparisons with last years data are provided both with mesothelioma cases included and excluded.

The report also, for the first time, includes some focus features about specific areas of cancer care and shows trends in care outcomes over time.

# Key Messages

- The audit has collected data on 40,216 patients in Great Britain for this audit period, representing approximately 98 per cent[1] of the expected number of new lung cancer cases. This is thought to represent all cases of lung cancer presenting to secondary care.
- Overall measures of the standards of care have been sustained and have marginally improved compared to those seen last year, with small rises in the proportion of patients having surgery, and anti-cancer treatment. In many cases the measures of treatment now approach those seen in other western healthcare systems. Despite these improvements, there remains marked variation across Trusts and Networks and differences in case-mix do not appear to explain the whole of this variation. Trusts are encouraged to critically appraise their own results and perform reviews of lung cancer pathways and/or clinical cases where treatment rates are below the national average.

## Key Outcomes ('Headline Indicators') for the NLCA for 2012 for England and Wales, Scotland and Guernsey)

Note; data for Scotland includes mesothelioma.
Note; data for Guernsey for 2008 and 2009 was not recorded.
Note; Scotland did not report on CT scan prior to bronchoscopy for 2008

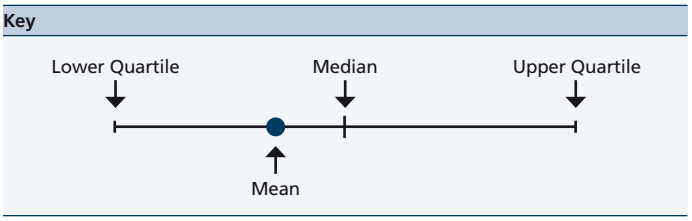
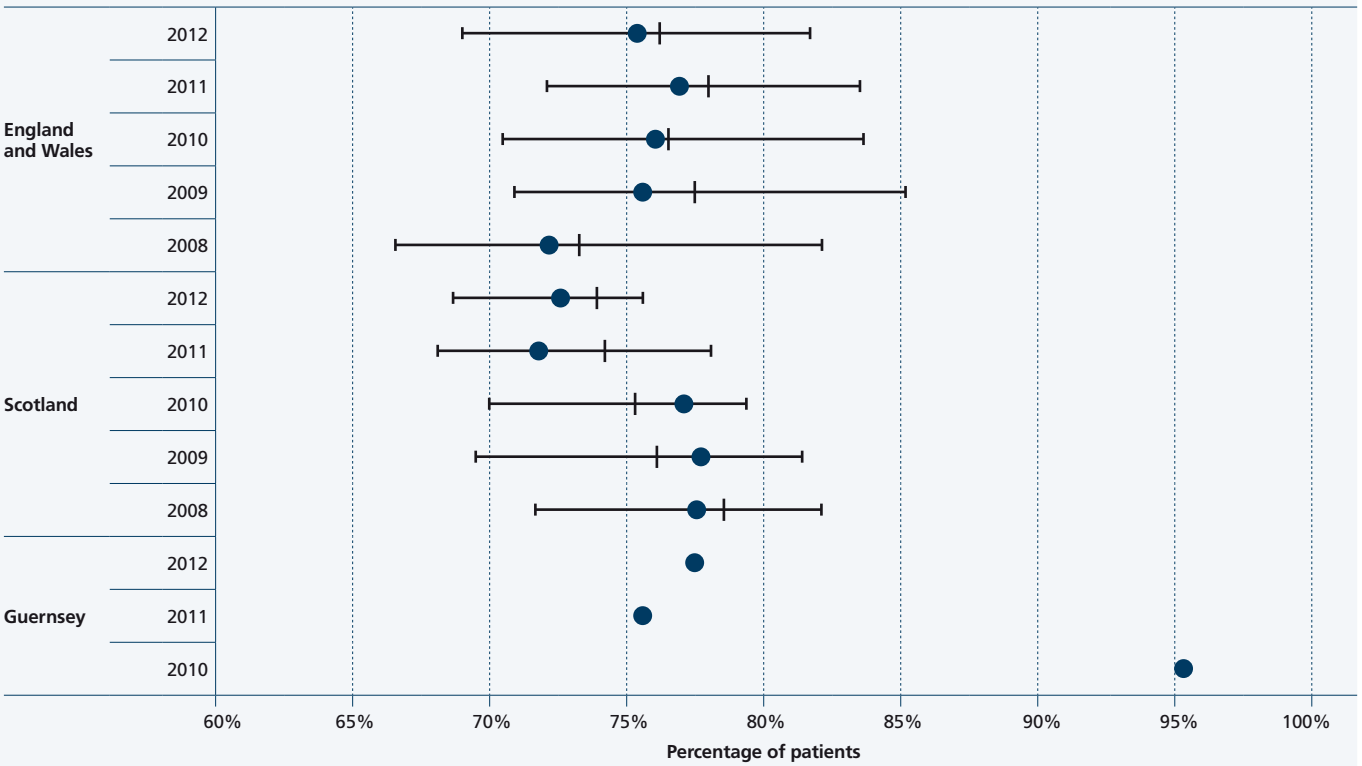
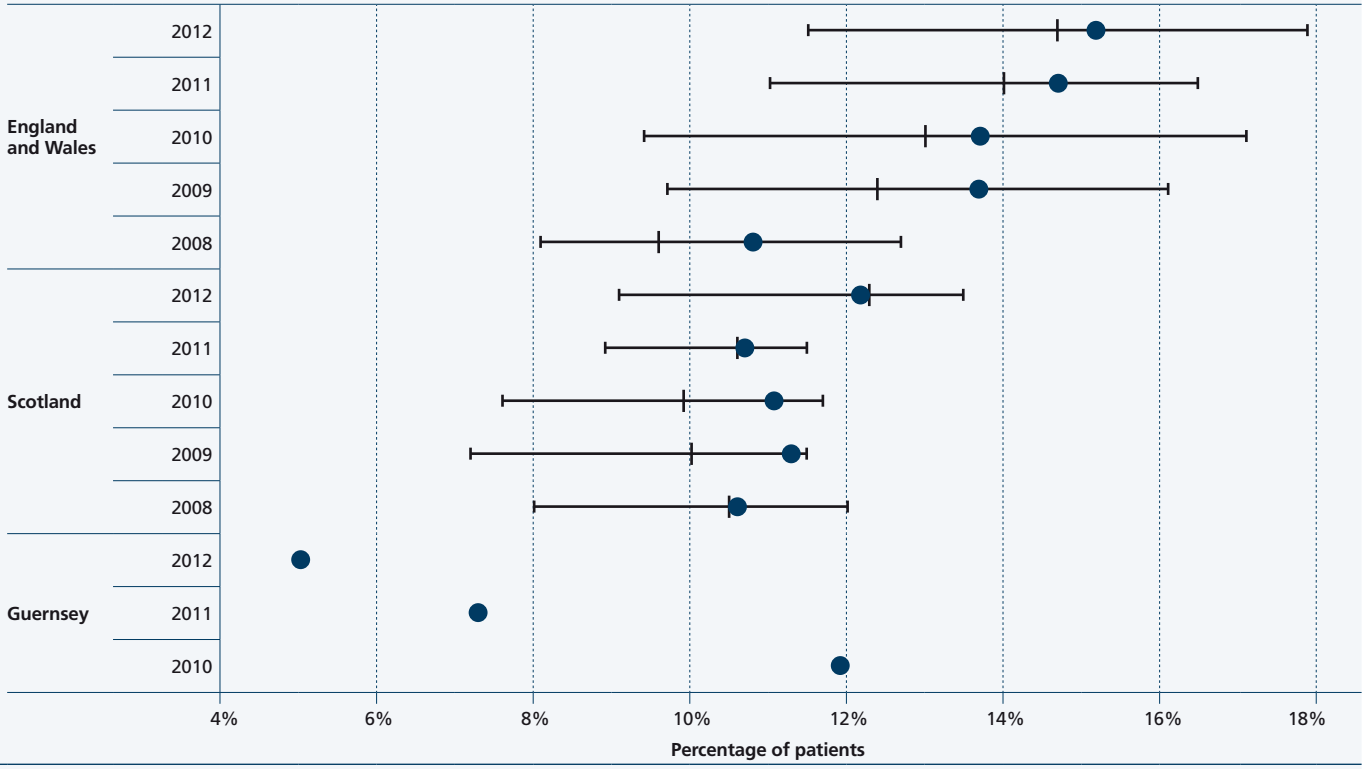



**Figure 1**
**Percentage of patients receiving a histological / cytological diagnosis**




[1] Based on Cancer Research UK (CRUK) data 2009.

**Figure 2**
**Percentage of patients receiving an operation***




* Proportion of patients with histologically confirmed NSCLC receiving surgical resection is shown in Tables 3 and 4

**Figure 3**
**Percentage of patients receiving any anti-cancer treatment**

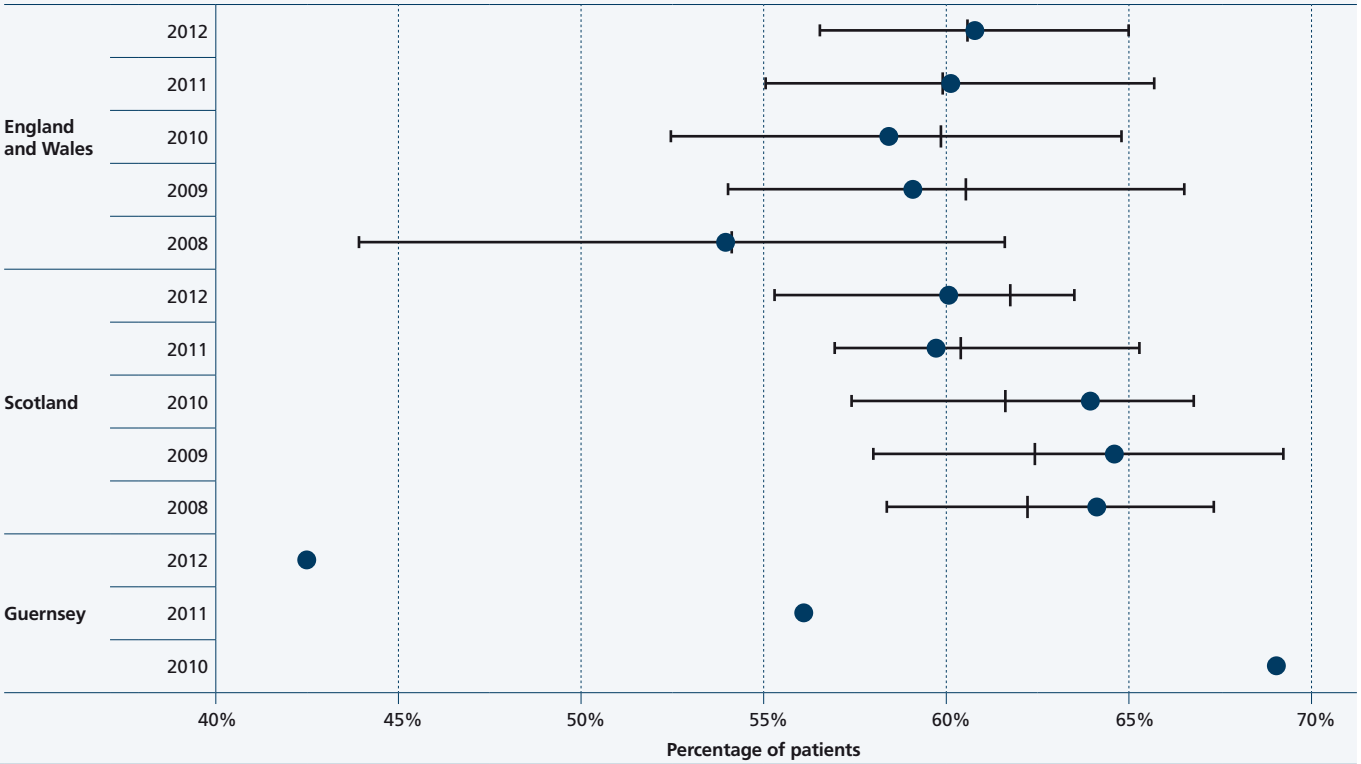


**Figure 4**
**Percentage of patients receiving a CT scan before bronchoscopy**

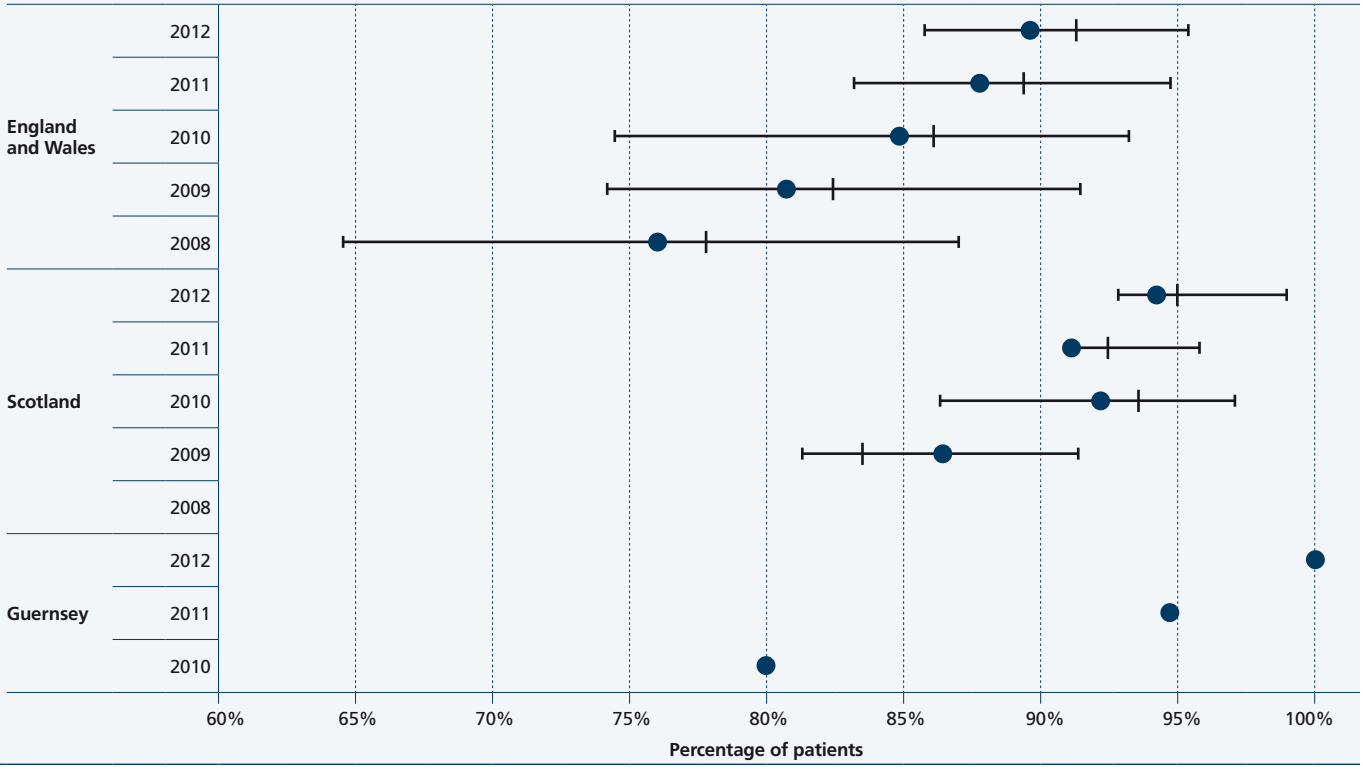
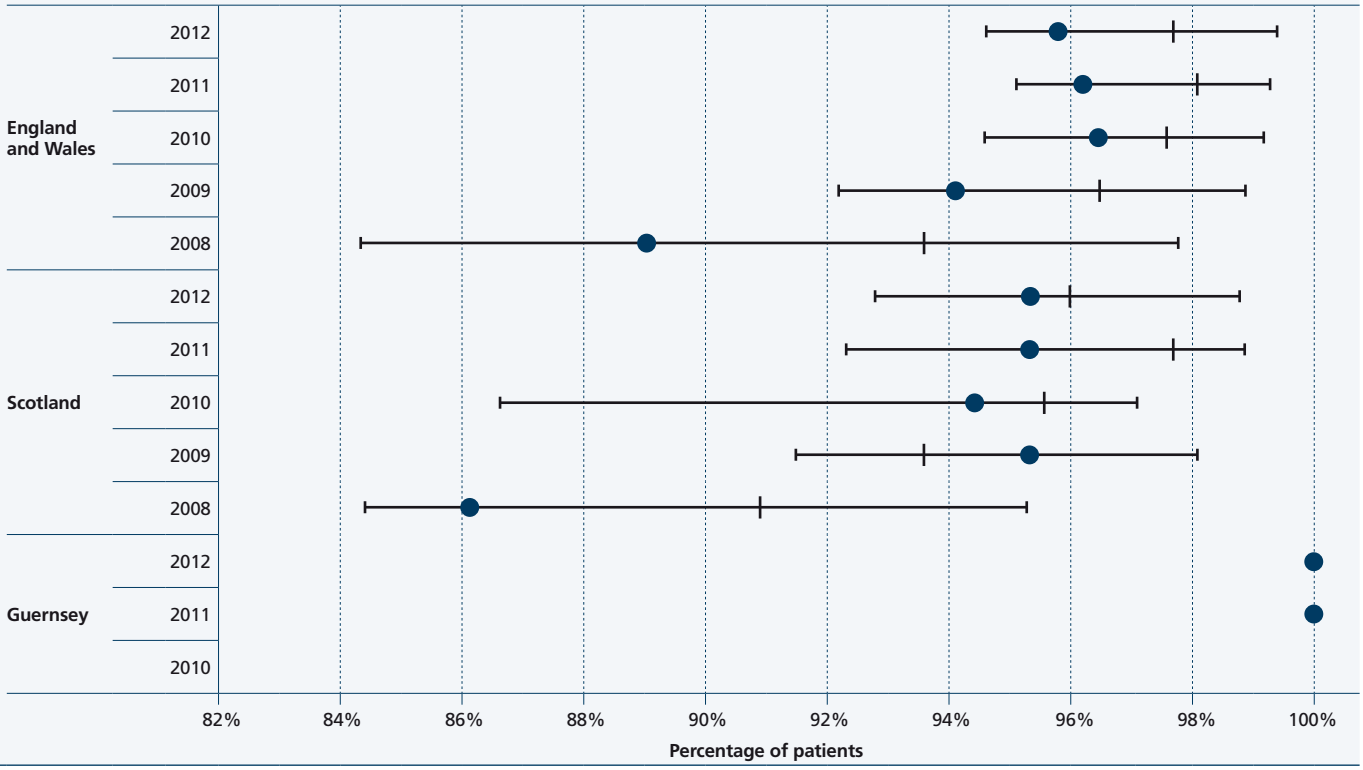



**Figure 5**
**Percentage of patients discussed at MDT**



# Recommendations (England and Wales)

1. All Hospitals, Trusts and Health Boards should participate in this national audit, should submit data on all patients presenting to secondary care diagnosed with either lung cancer or mesothelioma, and should complete all relevant data fields for each individual patient.
2. Data completeness for key fields should exceed 85 per cent and for MDT completeness should exceed 95 per cent (See Appendix 2 Local Action Plan).
3. Data completeness for the co-morbidity field should exceed 85 per cent, and for patients with Stage I-II and PS 0-1, completeness for FEV1 and FEV1% should exceed 75 per cent.
4. Maintain the level of 95 per cent of patients submitted to the audit being discussed at a Multi-Disciplinary Team (MDT) Meeting.
5. Histological/cytological confirmation rates below 75 per cent should be reviewed to determine whether best practice is being followed and whether patients have access to the whole range of biopsy techniques.
6. Non-Small Cell Lung Cancer, not otherwise specified (NSCLC NOS) rate of more than 20 per cent should be reviewed to ensure that best practice histological diagnostic techniques including immunohistochemistry are being followed, in order that patients receive appropriate chemotherapy regimens.
7. At least 80 per cent of patients are seen by a Lung Cancer Nurse Specialist (LCNS); at least 80 per cent of patients should have a Lung Cancer Nurse Specialist present at the time of diagnosis (note that these data are not available for Wales).
8. For patients undergoing bronchoscopy at least 95 per cent should have a CT scan prior to the procedure.
9. Surgical resection rates for NSCLC below the England and Wales average of 16 per cent should be reviewed. Furthermore, for early stage disease with good Performance Status (I and II), rates below 52 per cent should be reviewed to ensure that patients on the margins of operability/resectability are being offered access to specialist thoracic surgical expertise (including second opinions).
10. Active anti-cancer treatment rates below the England and Wales average of 61 per cent should be reviewed.
11. Chemotherapy rates for small cell lung cancer below the England and Wales average of 68 per cent should be reviewed.
12. Chemotherapy rates for good Performance Status (0-1) Stage IIIB / IV NSCLC below the England and Wales average of 57 per cent should be reviewed.

A Local Action Planning toolkit (LAP) is provided in Appendix 2 to assist organisations in benchmarking against these quality measures. All organisations are encouraged to use the audit data to drive their service development in order to improve the standard of care for lung cancer patients. Trusts whose results in 2012 meet these recommendations should work to maintain their high standards and exceed them where appropriate.

Performance against some of these recommendations is highlighted by a system of colour coding in the data Tables 1, 2, 4 and 5.

**Scotland**

The above recommendations do not apply to Scotland; therefore the data in the Tables are not colour coded. NHS Quality Improvement Scotland published National Lung Cancer Standards in March 2008. NHS Boards in all Scottish Networks participate in comparing 2012 results measured against these Standards, and where variance is shown action plans can be developed by Networks and NHS Boards and monitored by Regional Cancer Advisory Groups.

As part of the Scottish Government's National Cancer Quality Programme new Quality Performance Indicators (QPIs) for Lung Cancer were implemented for all patients diagnosed on, or after, 1st July 2013. Performance against these QPIs will be monitored following one year of implementation and will be subject to a robust governance process through Regional Cancer Networks, the Scottish Government and Healthcare Improvement Scotland.

It is important to stress that these quality measures are not targets, since in some cases there will be valid reasons for variation, such as case-mix and patient choice. Where applicable, organisations should take the case-mix adjusted results (published separately) into consideration in the evaluation of their service, although it is noted that in general case-mix does not explain the whole of the variation in practice across organisations.

# Summary Details of Key Findings

## How Many People Were Diagnosed With Lung Cancer?

In 2012 there were 35,366 patient records submitted from England and Wales (see Figure 6), 4,810 submitted from Scotland (Figure 7), and 40 submitted from Guernsey (Figure 8). Combined, this is approximately 98 per cent of the expected annual incidence and probably almost all of those cases presenting to secondary care (some cases are diagnosed and treated in primary care, or are diagnosed at a post-mortem). Of these records, 367 were not suitable for further analysis (mainly from the English submissions) and predominantly due to no 'date first seen' being recorded, meaning that it was not possible to be certain that these were cases from 2012. Figures 6, 7, and 8 show the incidence by cancer type.

**Figure 6**
**Number of patient records submitted to the NLCA – England and Wales**

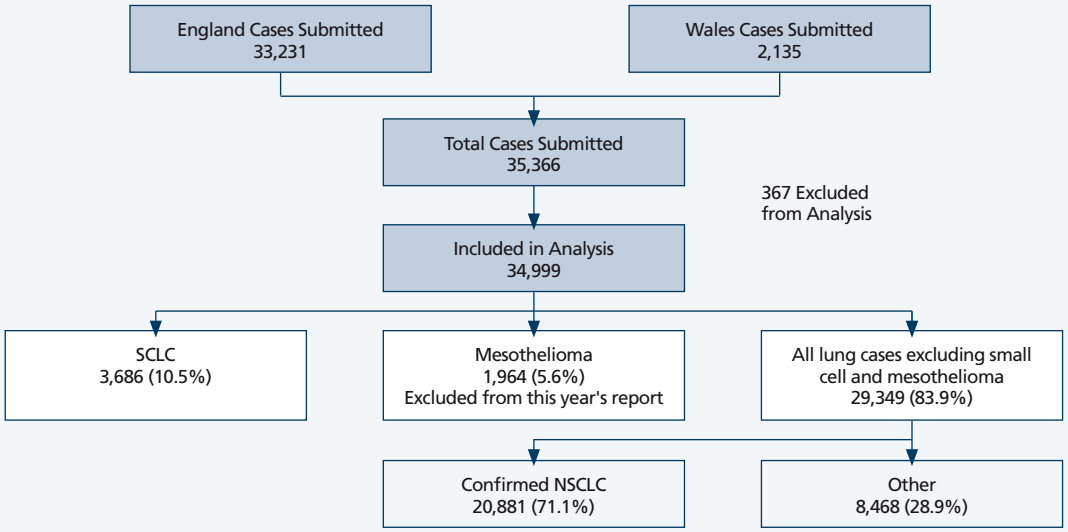



**Figure 7**
**Number of patient records submitted to the NLCA – Scotland**

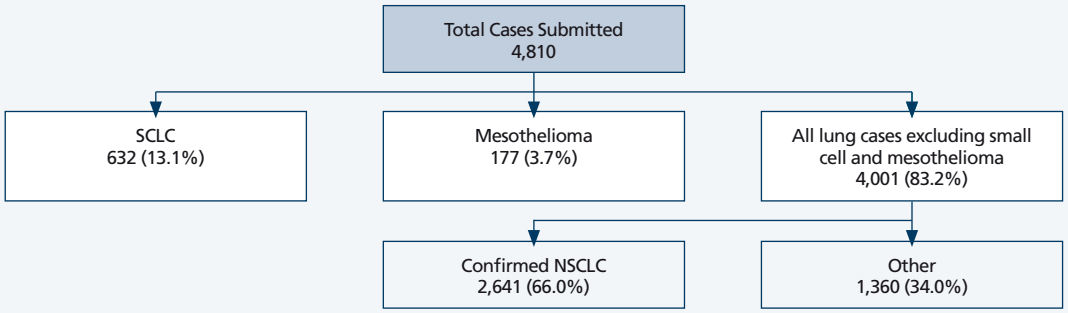
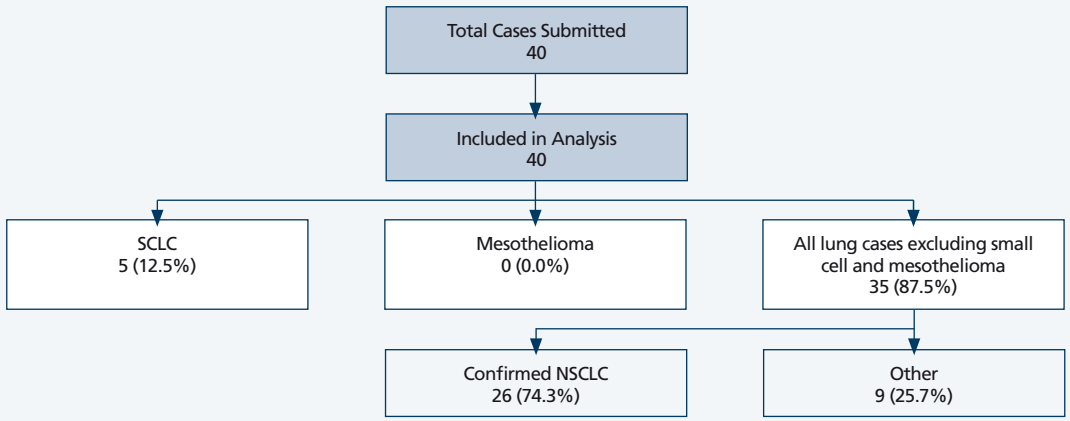


**Figure 8**
**Number of patient records submitted to the NLCA – Guernsey**




## How Accurate are the Data in this Report?

Data submitted to the National Lung Cancer Audit need to be as complete as possible in terms of healthcare organisation participation, population coverage and data field completeness both to ensure the representative nature of the information and to make case-mix adjustment possible. Please refer to previous versions of the Annual Report for a full explanation of this issue.

### Healthcare Organisation Participation

Every Trust or Health Board in England and Wales, and every Health Board in Scotland has participated in the audit. Princess Elizabeth Hospital, Guernsey has also participated in the audit.

### Population Coverage

Figures 6-8 show that the audit has captured approximately 98 per cent of the expected number of cases nationally and almost all of those patients presenting to secondary care.

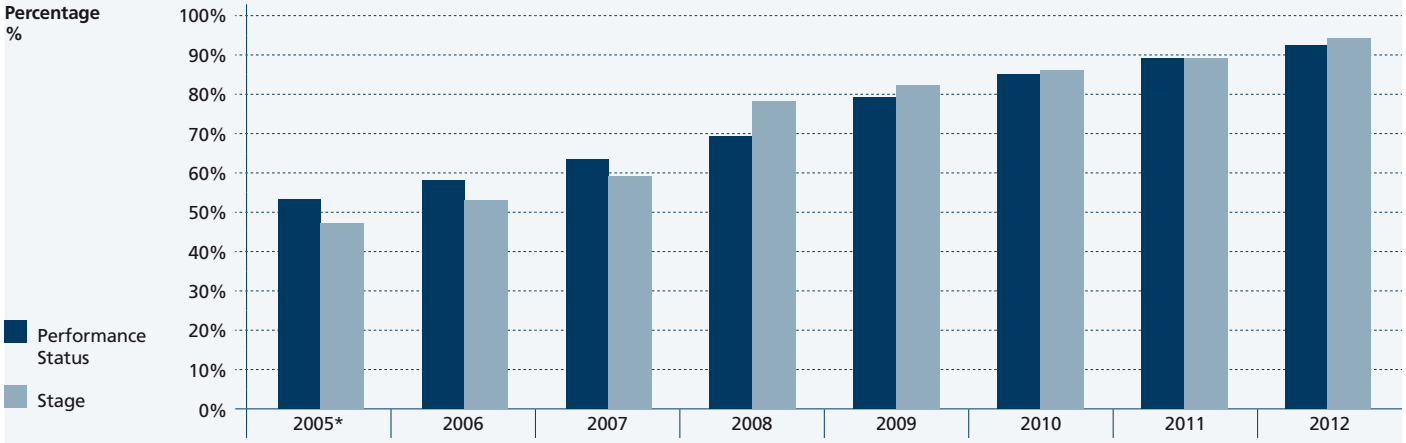
The "Data Completeness" section (formerly shown in Tables 1a-c) in previous years is now included in the online information sheet (published on www.hscic.gov.uk/lung).

The colour coding in the Tables reflects the targets set in the 2011 Local Action Plan (LAP). Trusts with a high tertiary workload or where the targets are known to not be applicable for other reasons are shown in blue throughout. Many of the Trusts in this category fully participate in the audit by submitting treatment data for other Trusts. However, their full contribution to the audit process may not be reflected by the way these audit results are presented. The treatment data entered by these Trusts are shown in Figure 10 on page 35.

### Data Field Completeness

As previously stated data completeness results are available online only this year. Figure 9 illustrates that once again the data completeness of the key fields of Stage and Performance Status (PS) have improved for another year.

**Figure 9**
**Data Completeness - England and Wales (2012)**




* England Only

# What is the Standard of Care Given to Patients?

Table 1 lists ''Headline Indicators'' (Process and Clinical Outcomes for England and Wales 2012) by Network and by Trust (key to codes given in Appendix 1) for all lung cancer cases across England and Wales. These indicators have been chosen to reflect the overall standard of care provided to patients. In interpreting these figures data completeness must be borne in mind, furthermore, the results as presented do not take into account the case-mix of patients. Adjustments to the results to account for case-mix will be available from the HSCIC website in due course. Where applicable, organisations should take the case-mix adjusted results into consideration in the evaluation of their service since although case-mix does not explain the whole of the variation in practice across organisations, it may show a particular result to be, or not to be, a statistical outlier. The colour coding in the Tables reflects the targets set in the 2011 Local Action Plan (LAP).

Data for Guernsey are shown in Table 2.

Similar data for Scotland are shown in Table 3. LAP targets do not apply to Scotland; hence the data are not colour coded. National Lung Cancer Standards published by NHS Quality Improvement Scotland in 2008 include Standards for rate of histological confirmation (minimum 75 per cent) and percentage of SCLC having chemotherapy (minimum 60 per cent) however these do not specify rates of resection or anti-cancer treatment.

## Improvements in Care

Further details of the changes in the key outputs of the audit are shown in the Tables in the "Key Messages" section on page 9. For England and Wales, the proportion of patients receiving a histological/cytological diagnosis shows a marginal decrease to 75.3 per cent, the proportion of patients discussed at an MDT remains stable at 95.8 per cent, and the proportion of patients who receive a CT scan prior to a bronchoscopy procedure remains stable at 89.6 per cent. The anti-cancer treatment rate and the overall surgical treatment rate have both increased by almost one percentage point this year to 60.8 per cent and 15.2 per cent respectively.

In interpreting these results it should be noted that mesothelioma has been excluded from the denominator for England and Wales. Comparison to last year's results with mesothelioma removed from the denominator reveals exactly the same data pattern with almost no change to the relative increase or decrease in results.

It is clear from the key messages that there remains a marked variation in the outputs that the audit measures across organisations. This is apparent both at Network and even more markedly at Hospital Trust level. In the latter case, some of the more extreme variation is explained by low numbers of cases, or poor quality data, so a useful way of reporting the variation is the "interquartile range" (IQR), describing the range of values in the middle 50 per cent. In England and Wales, the IQR for histological/cytological confirmation is 69.0 - 81.7 per cent, and for surgical treatment it is 11.5 -17.9 per cent, the variation in range is almost identical to last year for these two measures. For anti-cancer treatment the IQR has reduced by over 2 percentage points and this year is 56.5 - 65.0 per cent. Similar variation is apparent for Scotland and Guernsey.

## Converting Data into Service Improvement

Collecting data is only part of the audit process and it is important that the data is used to improve the services provided to patients and the outcomes of their treatment. There are numerous examples of local organisations doing just this. Furthermore, national organisations such as the National Institute for Health and Clinical Excellence, the British Thoracic Society and the National Cancer Peer Review Programme have all utilised data from the audit in their work programmes for lung cancer. Examples of some of the uses of the audit data are described in the list on page 17.

| | |
|---|---|
| National Cancer Peer Review Programme (part of the National Cancer Action Team) | To provide data for the 'Clinical Lines of Enquiry' – outcome measures for the assessment of Lung Cancer Multi-Disciplinary Teams in England |
| Nottingham University – 'LUCADA Fellowship'. Funded by the Royal College of Physicians | Academic MD fellowships based on the use and interpretation of data from the NLCA has resulted in 6 peer-reviewed publications to date |
| European Respiratory Society Thoracic Oncology Assembly : 'European Initiative for the Quality Management of Lung Cancer' | Underpinning the long term goal of a pan-European comparative audit of lung cancer performance and outcomes |
| LungPATH – a National Audit and Service Improvement programme in lung cancer pathology in collaboration with Guy's & St Thomas' Hospital and King's College London | A programme, based on the elements of the NLCA. This national audit (funded by an unrestricted educational grant from the pharmaceutical industry) demonstrated marked variation in the quality of the process of the pathological diagnosis of lung cancer and in 2013 published a report including recommendations to address this http://www.hqip.org.uk/assets/NCAPOP-Library/NCAPOP-2012-13/LungPath-Phase-2-Report.pdf |
| Society of Cardiothoracic Surgeons, The National Cancer Intelligence Network and Nottingham University | Examining the detail underpinning the variation in surgical resection rates and surgical outcomes for lung cancer patients across the UK |
| The Health Foundation | Improving Lung Cancer Outcomes Project (ILCOP) - described separately |
| The Department of Health and Cancer Research UK's International Cancer Benchmarking Partnership and the UK Cancer Registries: the collection of staging data on lung cancer | Data on the stage of cancers is essential for the interpretation of variations in cancer survival both within the UK and across national boundaries. The collection of staging data for lung cancer in the NLCA has improved the proportion of patients with stage recorded in the Cancer Registries having significant impact such initiatives as the International Cancer Benchmarking Partnership |
| Oxford University Department of Biomedical Engineering | Ph.D. project on clinical decision support and machine learning. The output of the work will be in the form of a clinical decision support platform, intended to act as a software tool to assist the clinicians in coming to informed, timely, safe and effective decisions in lung cancer care. |
| Scottish Government Health Directorate: Detect Cancer Early Programme | From 2012 routine quarterly staging data is being supplied by Health Boards from audit within the three Scottish Cancer Networks to measure the target to increase the number of Scots diagnosed with Stage 1 cancer by 25 per cent for three cancer types including lung cancer. |

# Focus on Surgical Resection

Surgery is the treatment of choice for patients with Stage I-II NSCLC, offering the best chance of a cure, although there is increasing evidence that new radiotherapy techniques may offer an alternative for selected patients. Careful preoperative assessment of the patient's overall medical condition, especially the patient's pulmonary reserve and cardiac status, is critical in considering the benefits of surgery.

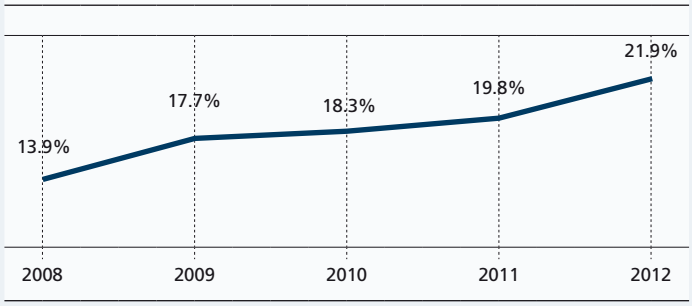
A low number of surgical resections has been considered as part of the explanation for poorer survival of lung cancer patients in the UK. Measurement of the proportion of patients undergoing surgical resection is an important measure of performance of lung cancer teams. This proportion can be calculated against a variety of denominators (all patients, all patients excluding SCLC and mesothelioma, all histologically confirmed NSCLC). Data presented here uses the latter, but the other measures, including calculation of "odds ratio" adjusted for clinical features will be included in the online audit data reports.

# Focus on Surgical Resection

For patients first seen in 2012, the mean resection rate in histologically confirmed NSCLC for England and Wales was 21.9 per cent, and this figure has been rising steadily over the past few years, although as indicated in Focus: Chart 2, a wide geographic variation persists.

The equivalent figure for 2012 for Scotland is 20.5 per cent.

**Focus: Chart 1**
**Resection rate in confirmed NSCLC by year (England and Wales)**




**Focus: Chart 2**
**Surgical resection rates in 2012**

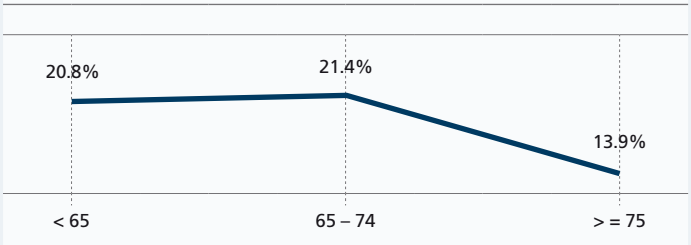
| Network | 2012 Resection | Trend |
|---|---|---|
| N01 | 16.1% | |
| N02 | 27.0% | |
| N03 | 30.8% | |
| N06 | 26.0% | |
| N07 | 23.8% | |
| N08 | 22.4% | |
| N11 | 21.6% | |
| N12 | 23.8% | |
| N20 | 18.0% | |
| N21 | 21.0% | |
| N22 | 19.6% | |
| N23 | 15.9% | |
| N24 | 15.8% | |
| N25 | 15.1% | |
| N26 | 19.0% | |
| N27 | 19.8% | |
| N28 | 25.6% | |
| N29 | 17.4% | |
| N30 | 27.8% | |
| N31 | 22.2% | |
| N32 | 18.4% | |
| N33 | 15.2% | |
| N34 | 19.5% | |
| N35 | 26.1% | |
| N36 | 20.9% | |
| N37 | 17.8% | |
| N38 | 18.9% | |
| N39 | 27.0% | |
| NWW | 18.4% | |
| SWCN | 15.8% | |

## Making Sense of the Data

The Table (Focus: Chart 2) shows the resection rate in all histologically confirmed NSCLC for Cancer Networks in England and Wales, as well as the five year trend compared to the national average. Each result is made up of the results from individual hospitals in that region. The "optimum" resection rate in this group of patients is not known. For younger patients with good performance status and no co-morbidities, surgery is without doubt the treatment of choice, but as age increases and general health declines, the risks of a surgical procedure may be considered too great by the patient or Surgeon. This approach to risk may explain some of the geographic variation in resection rates even when case-mix is taken into account.

The graph (Focus: Chart 3) demonstrates the impact age has on resection rates and organisations looking to increase their rate of surgery can look in detail at their approach to older patients as a means of improvement. Results for individual hospitals are available in the Tables in this report as well as in the online audit reports (the latter will include case-mix adjusted odds ratios which take account of variation in patient clinical features).

**Focus: Chart 3**
**Resection rate by age group, 2008-2012**




## Why Increase Resection Rate?

Compared with some European countries, England has low lung cancer survival and low use of surgical resection. A recent paper extracted data on 77,349 NSCLC patients diagnosed between 2004 and 2006 from the English National Cancer Repository Dataset. The researchers divided the patients into five groups, according to the frequency of surgical resection in their Primary Care Trust (PCT) area, and looked at mortality rates in each group. They found large geographical variation in the surgical resection rate for NSCLC (3-18 per cent). A low frequency of resection in a PCT area was strongly associated with overall mortality.

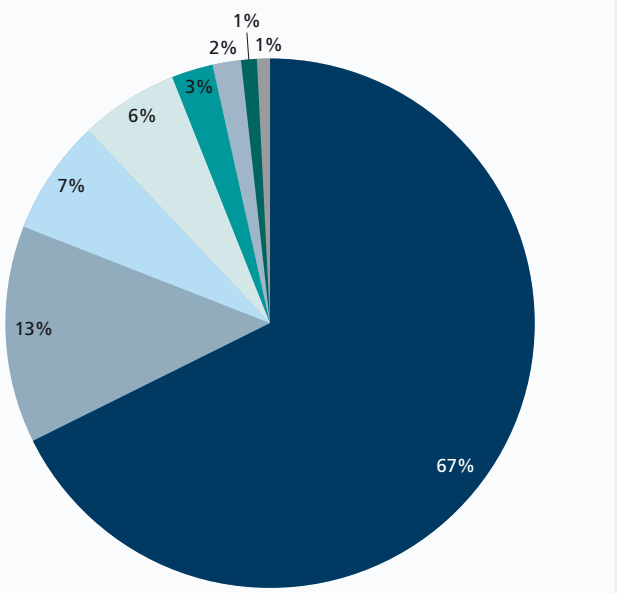
# Focus on Surgical Resection

The researchers concluded that if compared all PCT areas had the same resection rate as the highest resecting PCT, then 5420 deaths could be delayed in the overall NSCLC group, whereas about 146 more deaths could be expected amongst the resected patients (due to the complications of the increased surgery).[II]

## 17,628 Operations (2008 to 2012)

The surgical procedures carried out are recorded as Office of Population Censuses and Surveys (OPCS) codes. The vast majority of surgical procedures are lobectomies, with smaller numbers of larger resections (pneumonectomy) and smaller resections (wedge and segmental). A small number of sleeve resections and chest wall resections are also recorded (See Focus: Chart 4).

**Focus: Chart 4**
**Operations, 2008-2012**




- Lobectomy – 67%
- Wedge Resection – 13%
- Pneumonectomy – 7%
- Other Open Operation – 6%
- Bilobectomy – 3%
- Segmental Resection – 2%
- Sleeve Resection – 1%
- Lung Resection with Resection of Chest Wall – 1%
- Multiple Wedges Resected – 0%
- Carinal Resection – 0%

[II] Variation in surgical resection for lung cancer in relation to survival: population-based study in England 2004-2006. Eur J Cancer. 2012 Jan;48(1):54-60. doi: 10.1016/j.ejca.2011.07.012. Epub 2011 Aug 24.
Riaz SP, Lüchtenborg M, Jack RH, Coupland VH, Linklater KM, Peake MD, Møller H.
http://www.ncbi.nlm.nih.gov/pubmed/21871792

# Focus on Patient Pathway

Regardless of the lung cancer type and stage, all patients should be investigated quickly and efficiently, and be supported through the diagnostic pathway with high quality and personalised information. All patients should have their case discussed in a Multi-Disciplinary Team (MDT) meeting. Here a panel of specialists (including Surgeon and Oncologist) will recommend the most appropriate form of treatment as well as any other treatment option that the patient can consider.

Whilst the diagnostic pathway for lung cancer patients is often complex, national guidance makes clear recommendations on ways to streamline investigations, for example by ensuring that CT scans are carried out before more invasive tests, and choosing a mode of biopsy that offers information on stage as well as diagnosis.

Relevant measures collected by the audit include:

- Proportion of patients discussed in an MDT
- Proportion of patients seen by a Lung Cancer Nurse Specialist (LCNS)
- Proportion of patients where the Nurse Specialist is present at the time of diagnosis
- Proportion of patients where a CT scan was carried out before a bronchoscopy

Whilst the audit collects data on the timing of different elements of the patient pathway, these are not routinely reported upon, since the NHS already collects and analyses data on "Cancer Waiting Times".

# Focus on Patient Pathway

## Discussed at MDT

For patients first seen in England and Wales in 2012, 95.8 per cent are discussed at an MDT.

The graph (Focus: Chart 1) shows the results for individual Networks and data on individual Trusts is available in the data Tables.

Since some patients will unfortunately have died before there is an opportunity to discuss their case, a figure of 100 per cent will rarely be achieved, but where the figure falls below 95 per cent it is advisable that organisations review their mechanisms and policies to ensure that all suitable patients benefit from the multi-disciplinary expertise.

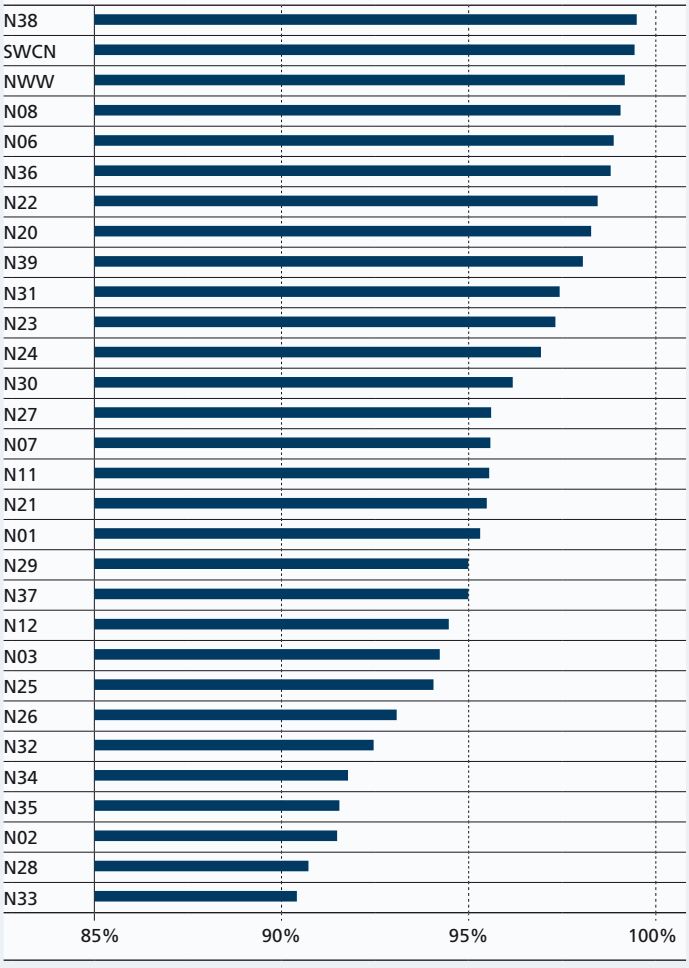
## CT Scan before Bronchoscopy

It is now recognised that it is rarely appropriate for a bronchoscopy to be carried out unless a CT scan has been done first. The two main drivers of this are the frequent need to carry out a repeat bronchoscopy to obtain staging information from mediastinal lymph nodes, and the finding of more appropriate biopsy sites once CT information is available.

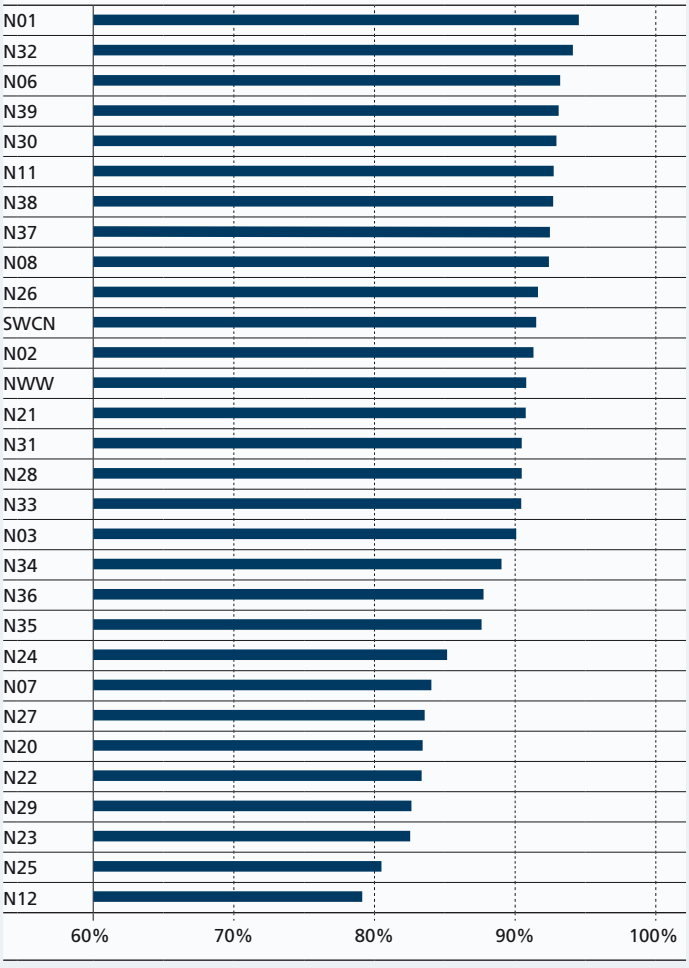
For patients first seen in England and Wales in 2012, 89.6 per cent have a CT scan before any bronchoscopy procedure.

The graphs (Focus: Chart 1 and 2) show the results for individual Networks and data on individual Trusts is available in the data Tables.

**Focus: Chart 1**
**Patients discussed in an MDT, 2012**




**Focus: Chart 2**
**Patients recieving CT Scan before bronchoscopy, 2012**



# Focus on Patient Pathway

## Lung Cancer Nurse Specialist

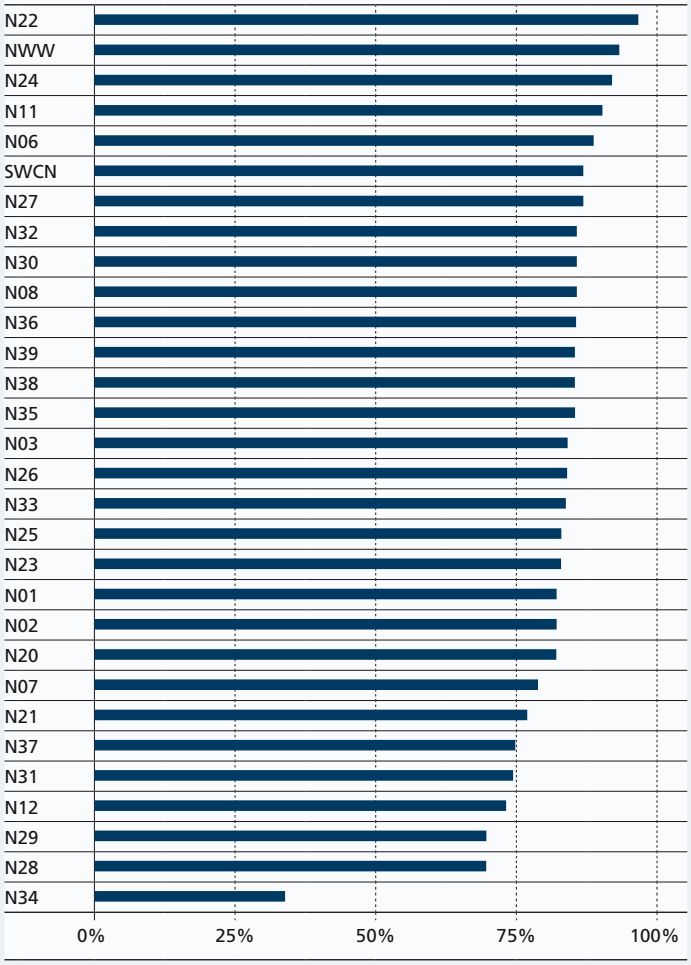
The role of Clinical Nurse Specialist was introduced in 1995, and they play a vital role in the delivery of high quality care and treatment to patients with lung cancer. Surveys of patients and carer experience repeatedly demonstrate the value placed upon the skills of these nurses in such areas as information provision, holistic assessment, symptom management, psychological support, co-ordination of care and patient advocacy. It is recommended that all patients should have equitable access to a LCNS at the time of diagnosis to guarantee that their physical, social and emotional needs, and their treatment options are appropriately assessed and discussed from the beginning of their cancer journey.

For patients first seen in England and Wales in 2012, 82.3 per cent are seen by a Lung Cancer Nurse Specialist (LCNS), and 61.2 per cent have the nurse present at the time of diagnosis. These results are improvements on previous years (79.5 per cent and 58.6 per cent in 2011).

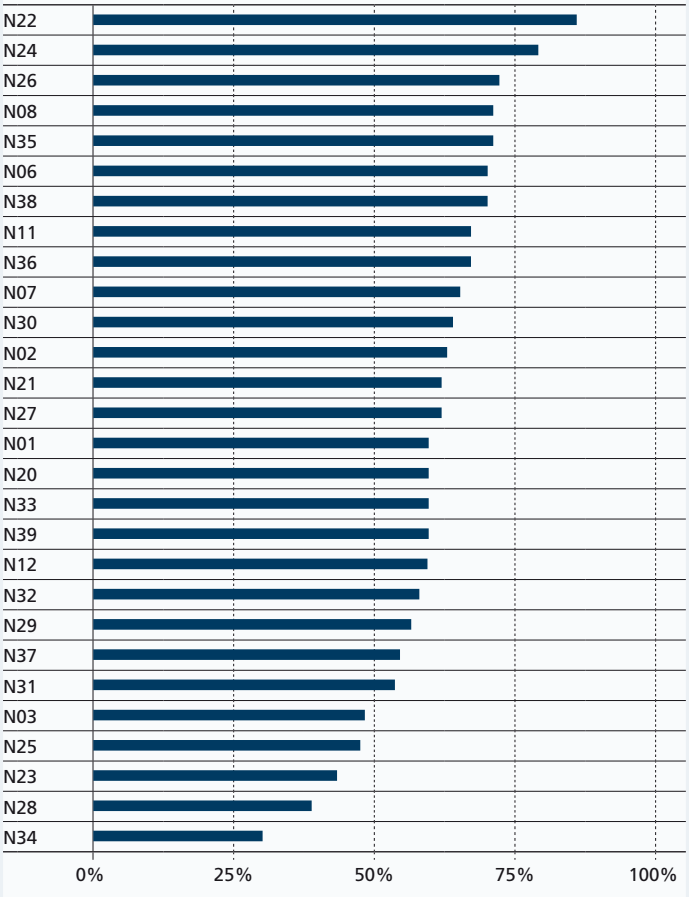
The graphs (Focus: Chart 3 and Focus: Chart 4) show the results for individual Networks. Data on individual Trusts is available in the data Tables. Note that Welsh Trusts do not collect data on whether the patient sees the LCNS at diagnosis.

The Roy Castle Lung Cancer Foundation produced a report in January 2013 entitled "Understanding the value of lung cancer nurse specialists". This document, available from their website (www.roycastle.org) examines the role of LCNSs, with the aim of helping people understand the vital contribution they make to the delivery of high quality care and to improved outcomes for patients with lung cancer. It includes 11 recommendations designed to ensure that LCNS posts are protected and, where necessary, increased in number, so that all patients with lung cancer have equitable access to LCNS input in their lung cancer pathway, and demonstrates the importance of fully supporting LCNSs with sufficient resources to carry out their work to the highest possible standards.

**Focus: Chart 3**
**Seen by LCNS**




**Focus: Chart 4**
**LCNS present at diagnosis**



# Focus on Survival

Treatment of lung cancer aims to prolong survival and improve quality of life by improving symptoms. At this time, measuring patient quality of life is not routinely carried out, so measurement of survival offers the best way of assessing effectiveness of treatment. Median survival (the time taken for 50 per cent of the patients to die from their cancer) is one way of measuring survival of the whole cohort of patients in England and Wales from 2012.

Lung cancer has one of the lowest survival outcomes of any cancer because around 50 per cent of patients are diagnosed at a late stage when curative treatment is not possible. Similarly, the median age at diagnosis of 72 years, coupled with high smoking prevalence means that there is a high incidence of co-morbidities in these patients that impacts upon the ability to deliver curative treatments. Even for those patients who have "curative" treatment with surgery or radical radiotherapy, lung cancer may recur some months or years later.

However, for patients with incurable lung cancer, active anti-cancer treatment and specialist palliative care still offer the potential to extend life and can be measured by six-month or one-year survival.

# Focus on Survival

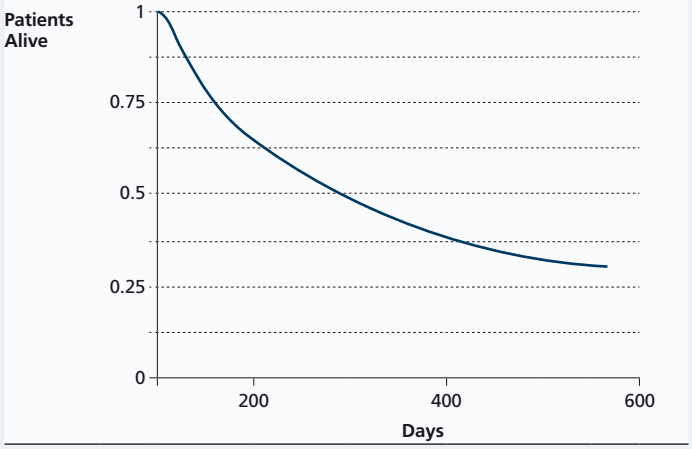
## Overall Survival

The graph (Focus: Chart 1) is a Kaplan-Meier plot of survival of the whole cohort of patients from 2012. For these patients, the median survival is 221 days (7.4 months), with a six-month survival of 55 per cent and a one-year survival of 39 per cent (based on the whole cohort).

These short-term survival figures appear to have improved compared to 2008 when median survival was 191 days (6.4 months) and one-year survival was 3 per cent.

The audit does not hold individual patient data for other countries and so is unable to calculate survival.

**Focus: Chart 1**
**Overall survival**



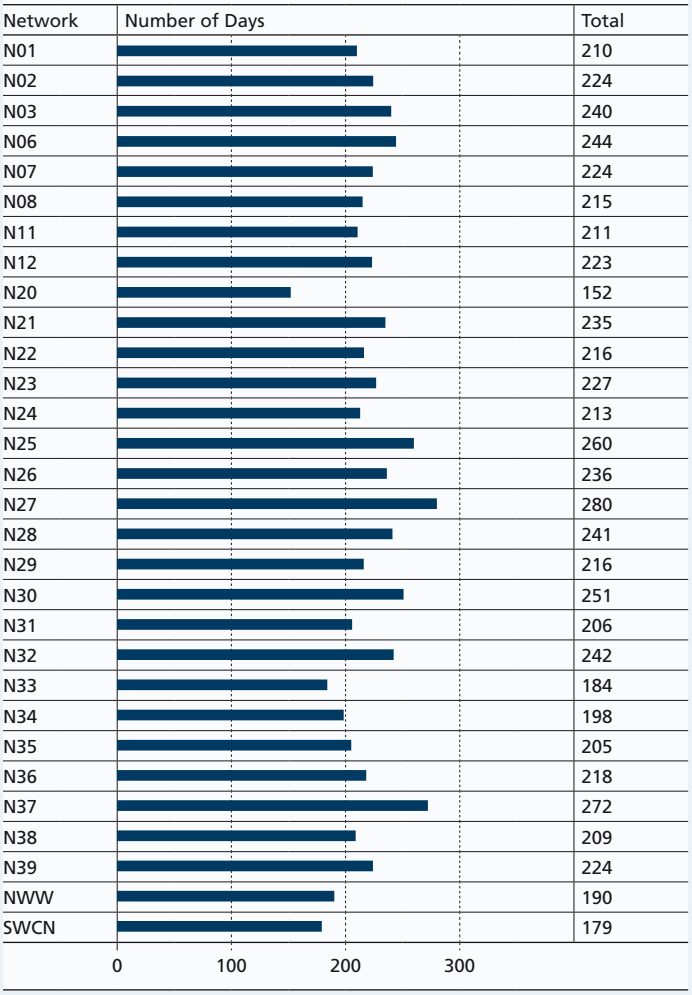

## Median Survival

The Table (Focus: Chart 2) shows the median survival for Cancer Networks in England and Wales. Each result is made up of the results from individual hospitals in that region.

Results for individual hospitals will be available in the online audit reports and will include statistically adjusted "odds ratios" to take account of differing clinical features of patients (such as age, Stage and Performance Status).

Survival data has to be interpreted with caution, to avoid making inappropriate judgements. Survival time has been calculated from the date first seen in secondary care rather than date of diagnosis since the latter is not always recorded accurately in the audit. If patients in one geographical area tend to be seen in secondary care (or are diagnosed) earlier, then the patient's survival time is increased. This increase in survival time makes it seem as though those patients are living longer when that may not be happening. This is called lead-time bias.

**Focus: Chart 2**
**Median survival of all lung cancer patients, 2012**

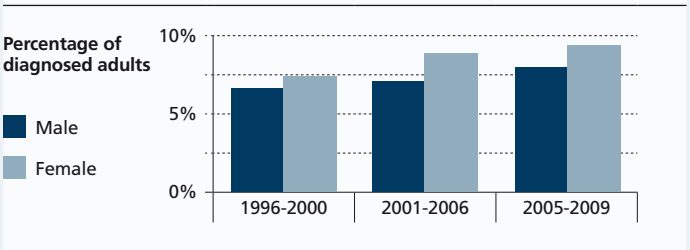



## Making Sense of the Data

The NLCA has been collecting data for eight years and it is not yet possible to use the data to measure improvements in long-term survival. Cancer Registries on the other hand, have collected survival data over many years and this data does indicate a slowly improving one-year and five-year survival over the past 20 years (see Focus: Chart 3, data from www.cancerresearchuk.org).

Improving longer-term survival depends upon finding lung cancers at an earlier stage and offering curative treatment to as many of these patients as possible.

**Focus: Chart 3**
**Five-year survival for lung cancer, England, 1996-2009**



## Case-Mix Adjustment

A typical explanation for different audit results from different organisations (Hospital Trusts or Cancer Networks) is that there is a different "case-mix". For example, a Hospital with a low treatment rate might argue that the patients they treat are older, more socially deprived, have more advanced disease, or poorer fitness (Performance Status).

The NLCA collects data that allows such factors to be taken into account. Taking anti-cancer treatment as an example, a statistical technique known as "logistic regression" calculates the likelihood of a patient in an organisation getting treatment compared to a baseline (typically the largest organisation) assuming that patients are matched for their case-mix.

This measure of likelihood of treatment is called an "odds ratio". The baseline organisation will always have an odds ratio of 1.0. If Hospital X has an odds ratio of 0.9, we can say that patients in that Hospital are 10 per cent less likely to have treatment (1.0 minus 0.9, converted to a percentage). Odds ratios have a further benefit, in that they provide so-called "confidence intervals", indicating how confident we can be that the observed differences are statistically important.

Improvements in data collection mean that Stage and Performance Status are now recorded in around 90 per cent of cases. In order to further refine the statistical analyses, it is important in future that organisations improve recording of co-morbidity and lung function. As mentioned in "Key Recommendations", we have suggested that data completeness for the co-morbidity field should exceed 85 per cent and for patients with Stage I-II and PS 0-1, completeness for FEV1 and FEV1% should exceed 75 per cent.

Case-mix adjusted data in an electronic spreadsheet format will be available from the HSCIC website in due course.

## Improving Lung Cancer Outcomes Project (ILCOP)

The Improving Lung Cancer Outcomes Project funded by the Health Foundation and hosted by the Royal College of Physicians aimed to reduced variation in outcomes and improve patient experience via reciprocal peer to peer review visits and facilitated quality improvement. During the intervention phase, the thirty participating Trusts provided many examples of local improvement projects which can be found on the RCP ILCOP website: www.rcplondon.ac.uk/projects/improving-lung-cancer-outcomes-project-ilcop

Evaluation of NLCA Key Indicators in 2012 showed that, compared to 2009, there was a small but statistically significant increase in active treatment rates in the intervention group compared to the controls and non-participants. In the intervention group overall patient experience scores did not change significantly during the study however the mean total score for the five Trusts with the worst baseline scores did show significant improvement.

The Project Team are currently exploring whether this form of supportive peer review for lung cancer quality improvement can be incorporated into a comprehensive national programme.

# Focus on Chemotherapy

Chemotherapy is used widely in the treatment of lung cancer. It is the primary mode of treatment for small cell tumours, where used alone or in combination with radiation, it may be curative. In NSCLC, it is most often used as part of a palliative treatment regime in locally-advanced or metastatic disease where it prolongs survival and improves quality of life. It is also used before surgery (neo-adjuvant) and after surgery (adjuvant) to reduce the chance of later relapse.

The audit focusses on two areas of chemotherapy usage that are recommended in National Guidelines such as the NICE Quality Standards:

- Chemotherapy in SCLC
- Chemotherapy in IIIB/IV NSCLC

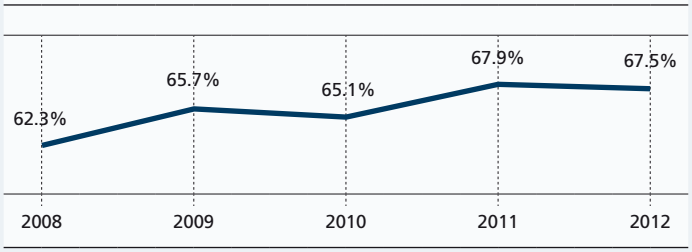
# Focus on Chemotherapy

## Chemotherapy in SCLC

For patients first seen in 2012, the mean chemotherapy rate in SCLC for England and Wales was 67.5 per cent, a small increase over previous years (See Focus: Chart 1).

The equivalent figure for 2012 for Scotland is 70.6 per cent.

**Focus: Chart 1**
**Chemotherapy rate in SCLC by year (England and Wales)**




The Table (Focus: Chart 2) shows the proportion of patients diagnosed with SCLC who receive chemotherapy in each Cancer Network in England and Wales, as well as the five year trend, compared to the national average. SCLC often progresses rapidly from the time of presentation to secondary care, and unless diagnosis and treatment are carried out expeditiously, the patient may well deteriorate during the diagnostic pathway to the point where they can no longer be offered treatment due to their poor general condition. NICE Quality Statement 13 states that "People with small cell lung cancer have treatment initiated within two weeks of the pathological diagnosis". Therefore, a low rate of treatment may represent a slow pathway, or alternatively a generally nihilistic approach to treatment. On the other hand, a very high rate of treatment may mean that some patients may receive chemotherapy inappropriately, leading to side effects, deterioration in quality of life and reduced survival. The results for individual Trusts are shown in the later data Tables, with suggestions for service improvement contained within the Local Action Plan Template. (Appendix 2)

**Focus: Chart 2**
**Patients diagnosed with SCLC recieving chemotherapy in England and Wales**

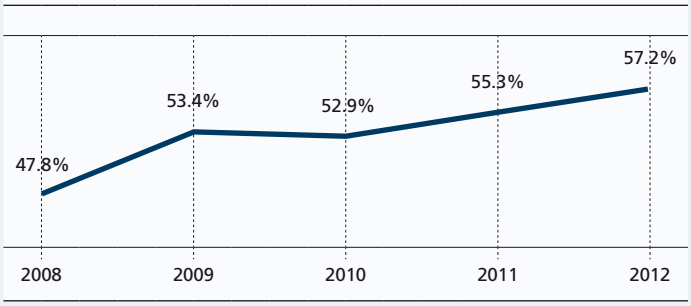
| Network | 2012 SCLC Chemo | | Trend |
|---|---|---|---|
| N01 | | 80.4% | |
| N02 | | 69.4% | |
| N03 | | 68.4% | |
| N06 | | 72.6% | |
| N07 | | 69.9% | |
| N08 | | 63.8% | |
| N11 | | 63.6% | |
| N12 | | 56.7% | |
| N20 | | 49.3% | |
| N21 | | 65.8% | |
| N22 | | 63.8% | |
| N23 | | 63.0% | |
| N24 | | 71.1% | |
| N25 | | 67.3% | |
| N26 | | 73.5% | |
| N27 | | 66.7% | |
| N28 | | 72.0% | |
| N29 | | 60.7% | |
| N30 | | 69.6% | |
| N31 | | 72.5% | |
| N32 | | 53.7% | |
| N33 | | 63.8% | |
| N34 | | 63.8% | |
| N35 | | 69.6% | |
| N36 | | 66.5% | |
| N37 | | 70.1% | |
| N38 | | 67.8% | |
| N39 | | 69.6% | |
| NWW | | 63.5% | |
| SWCN | | 63.1% | |

# Focus on Chemotherapy

## Chemotherapy in Stage IIIB/IV PS 0-1 NSCLC

For patients first seen in 2012, the mean chemotherapy rate for good Performance Status patients with locally advanced or metastatic NSCLC for England and Wales was 57.2 per cent, a small increase over previous years (See Focus: Chart 3).

**Focus: Chart 3**
**Chemotherapy Rate in IIIB/IV PS 0-1 NSCLC by year (England and Wales)**




Offering systemic therapy (most often chemotherapy) to patients with people with Stage IIIB or IV non-small cell lung cancer and eligible Performance Status is recommended in NICE Quality Statement 12. Patients with this type of cancer often question whether it is worth them having treatment, as they will perceive treatment as likely to impair their quality of life. However, published research confirms that the majority of patients having palliative chemotherapy will actually enjoy improved quality of life as well as modest improvements in survival. Communicating these issues clearly and sensitively to patients may be the key to improving treatment rates. The Table (Focus: Chart 4) shows the chemotherapy rates and five year trend compared to the national average for these patients by Cancer Network, with results for individual Trusts available in the later data Tables.

**Focus: Chart 4**
**NSCLC Chemotherapy rates, 2012**

| Network | 2012 NSCLC Chemo | Trend |
|---|---|---|
| N01 | 70.9% | |
| N02 | 51.1% | |
| N03 | 63.3% | |
| N06 | 67.6% | |
| N07 | 55.2% | |
| N08 | 63.8% | |
| N11 | 58.5% | |
| N12 | 47.9% | |
| N20 | 48.1% | |
| N21 | 51.9% | |
| N22 | 63.0% | |
| N23 | 64.2% | |
| N24 | 62.6% | |
| N25 | 59.1% | |
| N26 | 49.0% | |
| N27 | 51.0% | |
| N28 | 66.2% | |
| N29 | 44.9% | |
| N30 | 52.1% | |
| N31 | 48.7% | |
| N32 | 62.4% | |
| N33 | 45.2% | |
| N34 | 43.6% | |
| N35 | 58.2% | |
| N36 | 62.2% | |
| N37 | 56.9% | |
| N38 | 58.4% | |
| N39 | 51.8% | |
| NWW | 63.5% | |
| SWCN | 58.9% | |

# Linking Data

## Radiotherapy

There have been fields in the National Lung Cancer Audit dataset since its inception and the 'fact of radiotherapy' being given has been included as part of the 'Active Treatment Rate' Headline Indicator since the first Annual Report. Although there is a field for RT treatment intent in the LUCADA dataset, palliative or curative intent has never been utilized in the reporting because its interpretation is uncertain. Since the NLCA's inception, the NHS developed a Radiotherapy Dataset (RTDS) which was mandated for England in 2009 and has been managed by the National Clinical Analysis and Specialised Applications Team (NatCanSat) in Liverpool. The RTDS draws data on dose, fractionation and scheduling directly from linear accelerators and there are other data fields which are completed manually in RT Centres. There have been delays in gaining access to data in a form that allows the NLCA to examine RT by dose and treatment intent. These issues are now resolved and the audit plans to use these data to report more extensively on the utilization of radiotherapy.

## Chemotherapy

As with radiotherapy, there have been data fields in the NLCA dataset on chemotherapy from the outset, recording whether or not a patient has received chemotherapy rather than details of drug regimen or dose. This field robustly records the 'fact of chemotherapy' occurring with regards first line treatment, but the LUCADA database was not designed to record second line treatment. These chemotherapy data contribute to the reporting of 'Active Treatment Rate' and to chemotherapy rates for small cell lung cancer and the treatment of patients with Stages IIIB & IV non-small cell lung cancer of good Performance Status. The National Cancer Intelligence Network (NCIN) developed the Systemic Anti-Cancer Therapy (SACT) dataset and that became mandatory in England from April 2012. Most of the data is now being drawn from e-prescribing systems and, as of autumn 2013, the level of coverage of English chemotherapy units and the quality of the data coming from them has exceeded expectations. The SACT dataset includes fields on drug regimen, dosage, number of cycles administered and treatment intent. It also covers first and all subsequent lines of treatment. The NLCA intends to link data from the NLCA to these data as soon as is feasible and hope to be able to enhance the analyses of chemotherapy and other anti-cancer drug therapies in future reports.

# Trust and Health Board Performance

## Handling of Low Case Numbers

It should be noted that Trusts submitting very low numbers of cases with high levels of data completeness have been omitted from all Tables to ensure that no details about specific patients can be identified in this report. Because of this Network totals may not equal the sum of the composite Trusts. For example, in a Trust with only two submitted cases of lung cancer, with 100 per cent data completeness and a resection rate of 100 per cent, it would be possible to know the details of treatment of all lung cancer patients seen at that Trust. However, in most cases, each reported value is composed of multiple variables so it is impossible to surmise information about specific individuals from this report.

## Data Groupings

The data has been divided into the following groups for analysis:

- NSCLC – non-small cell lung cancer or, more correctly, this should be considered NOT small cell lung cancer. This group includes all lung cancers including those that are clinically diagnosed, but excludes pathological diagnoses of small cell lung cancer and clinical/ pathological diagnoses of mesothelioma.
- Histologically confirmed non-small cell lung cancer – all cases of non-small cell lung cancer that are confirmed by a histological or cytological specimen.
- Small cell lung cancer – all cases of lung cancer that are confirmed to be of small cell type by a histological or cytological specimen.

A separate report on mesothelioma will follow in due course.


# Focus on Histological Diagnosis

In recent years, a full pathological (histological) diagnosis of lung cancer has become increasingly important, with the realisation that therapies have different activity dependent upon the histological subtype and the presence or absence of molecular markers. Consequently, measures of the adequacy of histological diagnosis are considered markers of the quality of care.

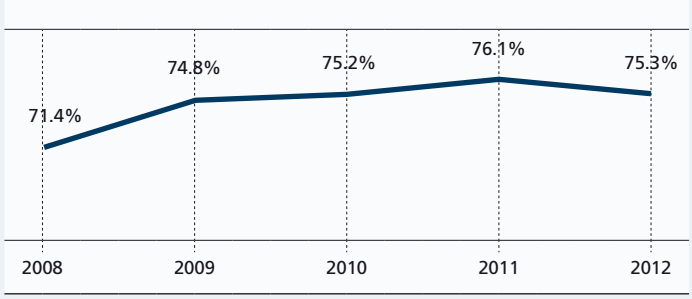
Histological Confirmation Rate (HCR) is the proportion of patients that have a diagnosis of lung cancer confirmed on a histological (tissue) or cytological (cellular) specimen rather than based on clinical or radiological features only. This includes patients who only have their cancer histologically confirmed at the time of their surgical treatment. The optimum HCR is unknown and will only rarely be 100 per cent since for some patients, the risks or burden of a biopsy cannot be justified. Evaluating the HCR in subgroups of patients or as an "odds ratio" adjusted for clinical features may therefore provide more useful information and will be included in the online audit data reports.

# Focus on Histological Diagnosis

For patients first seen in 2012, the mean HCR for England and Wales was 75.3 per cent, similar to the previous year, but significantly higher than earlier years, reflecting the increasing importance of histological subtyping and the availability of low toxicity targeted therapies (See Focus: Chart 1).

The equivalent figure for 2012 for Scotland is 72.6 per cent.

**Focus: Chart 1**
**Histocytological Confirmation Rate by year (England and Wales)**




## Making Sense of the Data

The Table (Focus: Chart 2) shows the overall HCR for Cancer Networks in England and Wales. Each result is made up of the results from individual hospitals in that region. A high HCR may indicate a more thorough approach to diagnosis of a lung cancer, although some patients may decline to have a biopsy, and for some patients a biopsy cannot be justified, so too high an HCR may also require further evaluation. Results for individual hospitals are available in the online audit reports.

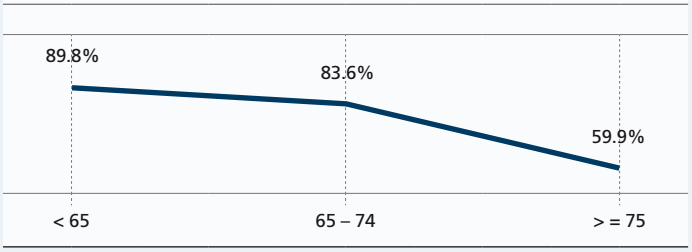
The Table also demonstrates the trend in HCR rates for these Networks over the past five years, indicating whether the situation is improving or worsening compared to the national average results.

Clinical features of the patients in hospital will have an impact upon the HCR, since for older and less fit patients, the utility of a biopsy may be less. The graph (Focus: Chart 3) demonstrates the impact age has on HCR rates. Organisations looking to improve their HCR should look in detail at their approach to older patients as a means of improvement.

**Focus: Chart 2**
**HCR for Cancer Networks in England and Wales**

| Network | 2012 HCR | Trend |
|---|---|---|
| N01 | 71.2% | |
| N02 | 68.9% | |
| N03 | 72.6% | |
| N06 | 73.3% | |
| N07 | 66.3% | |
| N08 | 70.9% | |
| N11 | 76.2% | |
| N12 | 76.6% | |
| N20 | 71.6% | |
| N21 | 76.8% | |
| N22 | 83.1% | |
| N23 | 81.0% | |
| N24 | 84.1% | |
| N25 | 85.7% | |
| N26 | 70.9% | |
| N27 | 70.4% | |
| N28 | 74.4% | |
| N29 | 76.8% | |
| N30 | 83.7% | |
| N31 | 77.9% | |
| N32 | 83.7% | |
| N33 | 76.2% | |
| N34 | 77.1% | |
| N35 | 75.0% | |
| N36 | 74.4% | |
| N37 | 78.5% | |
| N38 | 85.1% | |
| N39 | 75.3% | |
| NWW | 75.0% | |
| SWCN | 71.5% | |

**Focus: Chart 3**
**HCR by age group (England and Wales 2012)**



# Focus on Histological Diagnosis

## LungPATH Project

The LungPATH Project examined the diagnostic and pathology processes of 19 hospitals. Each hospital reported the availability of investigations, waiting times and Pathologist workload. Data was collected on lung cancer patients seen over a six month period. Pathology reports for each invasive investigation were used to detect histological subtyping, and if immunohistochemistry or EGFR testing was used. Wide disparity in the availability of CT scanning, PET scanning and EBUS was found. There was a link between a tests availability and how likely it was to be used; patients were many times more likely to receive a PET scan or EBUS in some centres than others. The Project recommended maximum waiting times for CT scans of one week and two weeks for PET-CT and EBUS.

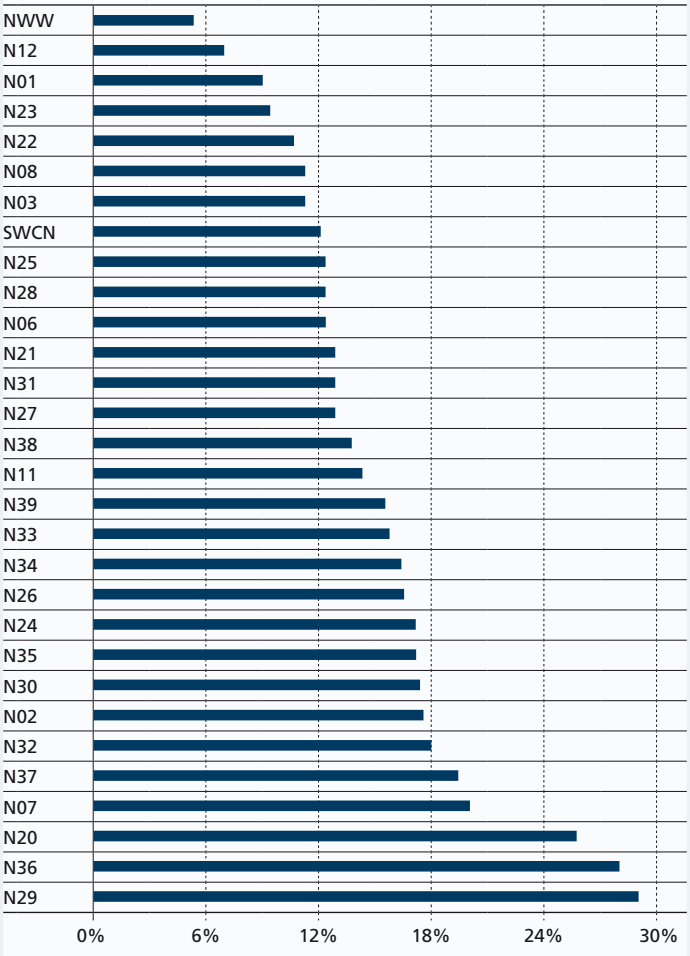
There was variation in the lung cancer workload Pathologists had in different centres, (1-14 hours per week). There was overuse of immunohistochemistry causing concerns around misuse of the tumour present, supported by the high EGFR test failure rate in some centres. The project recommended sub-specialisation of Pathologists within centres to enable concentration of workload, development of expertise and identified a need for education on immunohistochemistry use in lung cancer samples.

The full Project Report can be seen at:
www.hqip.org.uk/ncapop-library

## NSCLC NOS

Most cases of non-small cell lung cancer can be further classified to adenocarcinoma, squamous carcinoma or other subtype using a range of techniques. This subtyping has an important impact upon the choice of chemotherapy, and so those patients whose tumours cannot be sub-classified (referred to as "Not Otherwise Specified") may not receive the most appropriate chemotherapy. Keeping this "NOS Rate" low will help to deliver best treatment for patients (See Focus: Chart 4).

**Focus: Chart 4**
**NSCLC NOS**



## Tertiary Trusts

Most activity relating to lung cancer initial diagnosis occurs in the secondary care Trusts which range from small district general hospitals, to large teaching hospitals. Subsequent treatment often take place in the same Trust, or for some smaller Trusts, the patient may be transferred to another secondary care organisation. Activity in these organisations is well represented by the audit since the analysis of cases by "place first seen" allocates patients to the decision making Multi-Disciplinary Team.

However, there are several Tertiary Trusts which do not provide diagnostic services and which are therefore only rarely the "place first seen". These Trusts do provide a very important treatment service for patients both in their local area, and also on a regional/national basis, and for this reason we have chosen to record their activity separately, as shown in the Table below (Figure 10). Due to the absence of a common denominator, it is not possible to compare outcomes in these organisations at the present time.

**Figure 10**
**Tertiary Trusts**

| Trust Code | Trust Name | Surgery (n) | Chemotherapy (n) | Radiotherapy including Brachytherapy (n) | Any (n) |
|---|---|---|---|---|---|
| RBV | The Christie NHS Foundation Trust | 0 | 435 | 793 | 991 |
| REN | The Clatterbridge Cancer Centre NHS Foundation Trust | 0 | 557 | 610 | 872 |
| RGM | Papworth Hospital NHS Foundation Trust | 99 | 0 | 0 | 99 |
| RM2 | University Hospital of South Manchester NHS Foundation Trust | 394 | 305 | 2 | 585 |
| RPY | The Royal Marsden NHS Foundation Trust | 0 | 167 | 195 | 327 |
| RT3 | Royal Brompton and Harefield NHS Foundation Trust | 331 | 0 | 0 | 331 |

# Data Completeness 2012 – Key Data Items

Data completeness reports for 2012 are available online at www.hscic.gov.uk/lung

## Process and Outcome

Date first seen = 2012 (all). Date of extract = 08/07/2013 (England) & 28/06/2013 (Wales)

**Table 1**
**Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **N01 Total** | **1,086** | **95.3** | **71.2** | **82.3** | **60.1** | **61.2** | **94.5** | **9.9** | **26.2** |
| RTX | 251 | 96.8 | 62.2 | 61.4 | 4.0 | 65.7 | 93.4 | 10.0 | 29.1 |
| RXL | 276 | 98.9 | 77.2 | 92.0 | 85.1 | 65.2 | 94.3 | 6.2 | 19.2 |
| RXN | 244 | 90.6 | 79.1 | 84.4 | 55.3 | 58.6 | 93.1 | 11.9 | 34.4 |
| RXR | 315 | 94.6 | 67.0 | 88.9 | 86.7 | 56.2 | 96.2 | 11.7 | 23.5 |
| **N02 Total** | **2,302** | **91.5** | **68.9** | **82.3** | **63.0** | **60.9** | **91.3** | **17.0** | **33.1** |
| RBT | 122 | 78.7 | 65.6 | 75.4 | 14.8 | 63.1 | 71.2 | 21.3 | 35.2 |
| RJN | 135 | 100.0 | 67.4 | 98.5 | 91.1 | 61.5 | 95.4 | 14.8 | 35.6 |
| RM2 | 255 | 90.2 | 80.8 | 80.0 | 27.1 | 66.7 | 97.9 | 24.3 | 25.5 |
| RM3 | 196 | 96.4 | 75.0 | 86.2 | 71.4 | 61.7 | 93.4 | 20.4 | 36.2 |
| RMC | 217 | 86.6 | 53.9 | 81.1 | 62.2 | 59.0 | 95.5 | 16.1 | 35.0 |
| RMP | 161 | 95.0 | 67.7 | 83.9 | 51.6 | 62.1 | 96.4 | 13.7 | 38.5 |
| RRF | 253 | 94.9 | 71.9 | 80.2 | 77.5 | 63.2 | 87.5 | 19.0 | 35.2 |
| RW3 | 226 | 93.8 | 80.1 | 88.9 | 70.4 | 57.1 | 89.7 | 17.7 | 29.2 |
| RW6 | 534 | 86.9 | 62.9 | 74.9 | 71.2 | 59.0 | 88.9 | 13.9 | 31.5 |
| RWJ | 202 | 98.0 | 67.3 | 90.1 | 72.8 | 59.4 | 90.3 | 11.9 | 36.1 |
| **N03 Total** | **1,849** | **94.2** | **72.6** | **84.2** | **48.4** | **61.0** | **90.0** | **20.6** | **30.8** |
| LLCU | 420 | 96.7 | 81.9 | 96.0 | 77.6 | 73.1 | 97.1 | 27.4 | 36.7 |
| RBL | 315 | 99.0 | 67.6 | 90.5 | 61.0 | 61.3 | 89.2 | 19.4 | 34.9 |
| RBN | 249 | 96.0 | 75.9 | 76.7 | 23.7 | 52.2 | 85.7 | 19.3 | 18.1 |
| REM | 327 | 95.1 | 72.2 | 74.0 | 3.7 | 64.5 | 92.0 | 23.2 | 34.6 |
| RJR | 196 | 87.8 | 62.8 | 71.4 | 36.7 | 51.5 | 75.3 | 14.8 | 25.0 |
| RVY | 156 | 86.5 | 69.9 | 90.4 | 71.2 | 59.0 | 95.4 | 17.9 | 31.4 |
| RWW | 181 | 91.2 | 68.5 | 84.0 | 66.3 | 49.7 | 88.6 | 11.0 | 27.1 |
| **N06 Total** | **2,015** | **98.9** | **73.3** | **88.9** | **70.2** | **63.9** | **93.1** | **17.1** | **36.8** |
| RAE | 266 | 99.2 | 60.5 | 89.8 | 70.7 | 60.9 | 98.1 | 17.7 | 35.3 |
| RCB | 194 | 99.0 | 72.2 | 89.2 | 89.2 | 57.7 | 95.9 | 16.5 | 33.5 |
| RCD | 95 | 98.9 | 77.9 | 88.4 | 77.9 | 68.4 | 100.0 | 14.7 | 27.4 |
| RCF | 145 | 100.0 | 71.7 | 93.8 | 81.4 | 57.9 | 100.0 | 15.2 | 25.5 |
| RR8 | 608 | 99.0 | 75.2 | 86.2 | 53.5 | 69.2 | 88.3 | 17.3 | 44.9 |
| RWY | 251 | 100.0 | 78.5 | 87.6 | 61.4 | 69.7 | 92.0 | 16.7 | 36.7 |
| RXF | 456 | 97.4 | 75.4 | 91.0 | 84.0 | 58.8 | 93.5 | 18.0 | 33.8 |
| **N07 Total** | **790** | **95.6** | **66.3** | **78.9** | **65.2** | **59.4** | **84.0** | **16.5** | **23.8** |
| RCC | 108 | 93.5 | 55.6 | 88.9 | 74.1 | 50.9 | 78.1 | 9.3 | 25.9 |
| RJL | 272 | 95.2 | 65.8 | 86.8 | 75.4 | 58.1 | 83.8 | 16.5 | 26.8 |
| RV9 | 10 | 80.0 | 60.0 | 100.0 | 70.0 | 80.0 | 100.0 | 0.0 | 60.0 |
| RWA | 400 | 96.8 | 69.8 | 70.3 | 55.8 | 62.0 | 84.9 | 18.8 | 20.3 |
| **N08 Total** | **1,285** | **99.1** | **70.9** | **85.8** | **71.3** | **57.6** | **92.4** | **14.9** | **19.0** |
| RFF | 163 | 98.8 | 77.3 | 95.7 | 81.6 | 64.4 | 93.8 | 14.1 | 7.4 |
| RFR | 192 | 95.3 | 68.8 | 94.3 | 77.6 | 53.1 | 100.0 | 12.5 | 9.9 |
| RFS | 172 | 100.0 | 69.8 | 84.9 | 71.5 | 45.9 | 86.2 | 10.5 | 8.1 |
| RHQ | 423 | 100.0 | 68.8 | 79.9 | 70.4 | 56.5 | 94.5 | 19.6 | 23.2 |
| RP5 | 335 | 99.7 | 72.2 | 83.9 | 63.6 | 64.2 | 88.8 | 13.1 | 30.1 |

**Table 1 (continued)**
**Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **N11 Total** | **1,124** ● | **95.6** ● | **76.2** ● | **90.3** ● | **67.1** ▲ | **54.4** ▲ | **92.7** ▲ | **15.3** | **18.7** |
| RBK | 153 ● | 98.0 ● | 83.0 ● | 93.5 ● | 77.8 ▲ | 58.2 ▲ | 96.1 ● | 13.7 | 19.6 |
| RR1 | 455 ● | 91.9 ▲ | 66.4 ▲ | 90.3 ● | 66.4 ▲ | 45.9 ▲ | 85.7 ▲ | 13.2 | 9.7 |
| RRK | 265 ● | 97.0 ● | 85.7 ● | 91.3 ● | 66.8 ▲ | 60.4 ● | 91.4 ▲ | 20.4 | 24.2 |
| RXK | 251 ● | 99.2 ● | 79.7 ● | 87.3 ● | 62.2 ▲ | 61.0 ● | 91.5 ▲ | 14.7 | 28.7 |
| **N12 Total** | **505** ● | **94.5** ▲ | **76.6** ● | **73.3** ▲ | **59.4** ▲ | **57.8** ▲ | **79.1** ▲ | **17.2** | **18.4** |
| RJC | 90 ● | 88.9 ▲ | 72.2 ▲ | 83.3 ● | 71.1 ▲ | 48.9 ▲ | 78.3 ▲ | 12.2 | 12.2 |
| RKB | 209 ● | 97.1 ● | 75.6 ● | 83.7 ● | 72.2 ▲ | 60.8 ● | 82.4 ▲ | 18.7 | 23.4 |
| RLT | 126 ● | 92.9 ▲ | 78.6 ● | 82.5 ● | 63.5 ▲ | 57.1 ▲ | 87.1 ▲ | 14.3 | 16.7 |
| RWP00 | 80 ● | 96.3 ● | 81.3 ● | 20.0 ▲ | 6.3 ▲ | 61.3 ● | 60.0 ▲ | 23.8 | 15.0 |
| **N20 Total** | **585** ● | **98.3** ● | **71.6** ▲ | **81.5** ● | **60.0** ▲ | **47.7** ▲ | **83.4** ▲ | **12.8** | **18.3** |
| RC9 | 213 ● | 99.1 ● | 71.4 ▲ | 77.5 ▲ | 47.9 ▲ | 46.5 ▲ | 77.9 ▲ | 17.4 | 12.7 |
| RWG | 193 ● | 97.4 ● | 71.0 ▲ | 88.6 ● | 67.9 ▲ | 38.3 ▲ | 81.7 ▲ | 8.3 | 16.6 |
| RWH | 179 ● | 98.3 ● | 72.6 ▲ | 78.8 ▲ | 65.9 ▲ | 59.2 ▲ | 91.4 ▲ | 12.3 | 26.8 |
| **N21 Total** | **797** ● | **95.5** ● | **76.8** ● | **77.0** ▲ | **62.1** ▲ | **60.5** ● | **90.7** ▲ | **15.4** | **29.9** |
| RAS | 131 ● | 87.0 ▲ | 61.1 ▲ | 86.3 ● | 81.7 ● | 46.6 ▲ | 84.2 ▲ | 12.2 | 22.9 |
| RC3 | 67 ● | 100.0 ● | 55.2 ▲ | 83.6 ● | 80.6 ● | 55.2 ▲ | 100.0 ● | 10.4 | 25.4 |
| RFW | 124 ● | 97.6 ● | 64.5 ▲ | 51.6 ▲ | 24.2 ▲ | 50.0 ▲ | 92.7 ▲ | 10.5 | 33.9 |
| RQM | 70 ● | 94.3 ▲ | 87.1 ● | 72.9 ▲ | 42.9 ▲ | 61.4 ● | 100.0 ● | 14.3 | 28.6 |
| RT3 ◆ | 22 ◆ | 86.4 ◆ | 90.9 ◆ | 90.9 ◆ | 31.8 ◆ | 86.4 ◆ | 16.7 ◆ | 63.6 ◆ | 22.7 ◆ |
| RV8 | 106 ● | 99.1 ● | 81.1 ● | 91.5 ● | 74.5 ▲ | 54.7 ▲ | 88.1 ▲ | 21.7 | 7.5 |
| RYJ | 277 ● | 97.1 ● | 89.5 ● | 76.9 ▲ | 67.9 ▲ | 72.9 ● | 94.4 ▲ | 14.4 | 41.9 |
| **N22 Total** | **781** ● | **98.5** ● | **83.1** ● | **96.8** ● | **86.0** ● | **67.2** ● | **83.3** ▲ | **15.7** | **33.5** |
| RAL | 88 ● | 97.7 ● | 95.5 ● | 100.0 ● | 98.9 ● | 65.9 ● | 89.5 ▲ | 23.9 | 25.0 |
| RAP | 101 ● | 99.0 ● | 80.2 ● | 98.0 ● | 94.1 ● | 62.4 ● | 95.8 ● | 9.9 | 40.6 |
| RKE | 87 ● | 97.7 ● | 71.3 ▲ | 93.1 ● | 74.7 ▲ | 64.4 ● | 71.4 ▲ | 11.5 | 37.9 |
| RQW | 143 ● | 98.6 ● | 86.7 ● | 98.6 ● | 91.6 ● | 69.2 ● | 86.8 ▲ | 15.4 | 42.7 |
| RRV | 112 ● | 100.0 ● | 91.1 ● | 92.9 ● | 55.4 ▲ | 88.4 ● | 90.9 ▲ | 19.6 | 39.3 |
| RVL | 247 ● | 98.4 ● | 78.1 ● | 97.6 ● | 93.9 ● | 59.5 ▲ | 71.7 ▲ | 15.0 | 24.7 |
| **N23 Total** | **709** ● | **97.3** ● | **81.0** ● | **82.9** ● | **43.3** ▲ | **56.1** ▲ | **82.5** ▲ | **12.3** | **20.5** |
| R1HKH | 102 ● | 99.0 ● | 87.3 ● | 65.7 ▲ | 48.0 ▲ | 59.8 ▲ | 95.0 ● | 19.6 | 13.7 |
| R1HM0 | 112 ● | 100.0 ● | 88.4 ● | 98.2 ● | 90.2 ● | 63.4 ● | 94.9 ▲ | 20.5 | 20.5 |
| R1HNH | 86 ■ | 96.5 ● | 68.6 ▲ | 87.2 ● | 67.4 ▲ | 37.2 ▲ | 78.6 ▲ | 10.5 | 7.0 |
| RF4 | 311 ● | 95.2 ● | 83.3 ● | 83.6 ● | 11.6 ▲ | 62.1 ● | 69.9 ▲ | 7.4 | 30.9 |
| RQX | 98 ● | 100.0 ● | 69.4 ▲ | 77.6 ▲ | 64.3 ▲ | 41.8 ▲ | 95.6 ● | 12.2 | 6.1 |
| **N24 Total** | **719** ● | **96.9** ● | **84.1** ● | **92.1** ● | **79.3** ▲ | **62.4** ● | **85.1** ▲ | **12.7** | **31.0** |
| RJ1 | 125 ▲ | 97.6 ● | 95.2 ● | 90.4 ● | 73.6 ▲ | 81.6 ● | 90.7 ▲ | 20.8 | 43.2 |
| RJ2 | 104 ● | 97.1 ● | 81.7 ● | 89.4 ● | 46.2 ▲ | 59.6 ▲ | 68.2 ▲ | 13.5 | 23.1 |
| RJZ | 118 ● | 100.0 ● | 87.3 ● | 78.8 ▲ | 78.8 ▲ | 63.6 ● | 89.3 ▲ | 13.6 | 34.7 |
| RYQ | 372 ● | 95.7 ● | 80.1 ● | 97.6 ● | 90.6 ● | 56.5 ▲ | 88.8 ▲ | 9.4 | 28.0 |
| **N25 Total** | **588** ■ | **94.0** ▲ | **85.7** ● | **83.3** ● | **47.3** ▲ | **62.4** ● | **80.5** ▲ | **12.1** | **28.2** |
| RAX | 115 ■ | 96.5 ● | 85.2 ● | 87.8 ● | 59.1 ▲ | 63.5 ● | 96.9 ● | 14.8 | 25.2 |
| RJ6 | 133 ● | 94.7 ▲ | 83.5 ● | 96.2 ● | 95.5 ● | 54.9 ▲ | 94.7 ▲ | 9.0 | 27.8 |
| RJ7 | 141 ■ | 96.5 ● | 87.2 ● | 79.4 ▲ | 4.3 ▲ | 72.3 ● | 73.9 ▲ | 17.7 | 29.8 |
| RVR | 198 ● | 90.4 ▲ | 86.4 ● | 74.7 ▲ | 38.9 ▲ | 59.6 ▲ | 61.1 ▲ | 8.6 | 28.8 |

**Table 1 (continued)**
**Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **N26 Total** | **1,056** ● | **93.1** ▲ | **70.9** ▲ | **84.2** ● | **72.1** ▲ | **61.9** ● | **91.5** ▲ | **13.4** | **36.6** |
| RA9 | 186 ● | 94.1 ▲ | 76.3 ● | 82.8 ● | 64.5 ▲ | 64.5 ● | 92.4 ▲ | 16.7 | 39.2 |
| RBZ | 96 ● | 93.8 ▲ | 57.3 ▲ | 93.8 ● | 61.5 ▲ | 39.6 ▲ | 91.7 ▲ | 10.4 | 6.3 |
| REF | 247 ● | 96.8 ● | 75.7 ● | 94.7 ● | 84.6 ● | 70.0 ● | 100.0 ● | 13.0 | 45.3 |
| RH8 | 221 ● | 99.5 ● | 85.5 ● | 91.4 ● | 83.7 ● | 71.5 ● | 86.5 ▲ | 16.7 | 47.1 |
| RK9 | 306 ● | 84.6 ▲ | 57.5 ▲ | 68.3 ▲ | 61.4 ▲ | 53.9 ▲ | 88.0 ▲ | 10.5 | 29.7 |
| **N27 Total** | **476** ● | **95.6** ● | **70.4** ▲ | **86.6** ● | **61.8** ▲ | **55.3** ▲ | **83.5** ▲ | **13.4** | **23.3** |
| RBD | 122 ● | 98.4 ● | 68.9 ▲ | 91.0 ● | 36.9 ▲ | 50.8 ▲ | 83.3 ▲ | 11.5 | 18.9 |
| RD3 | 148 ● | 92.6 ▲ | 76.4 ● | 81.1 ● | 46.6 ▲ | 64.2 ● | 73.6 ▲ | 18.2 | 31.1 |
| RDZ | 206 ● | 96.1 ● | 67.0 ▲ | 87.9 ● | 87.4 ● | 51.5 ▲ | 90.1 ▲ | 11.2 | 20.4 |
| **N28 Total** | **938** ● | **90.7** ▲ | **74.4** ▲ | **69.5** ▲ | **38.8** ▲ | **62.8** ● | **90.4** ▲ | **18.0** | **28.5** |
| RA3 | 89 ● | 91.0 ▲ | 88.8 ● | 73.0 ▲ | 47.2 ▲ | 66.3 ● | 97.8 ● | 19.1 | 22.5 |
| RA4 | 92 ● | 88.0 ▲ | 62.0 ▲ | 77.2 ▲ | 66.3 ▲ | 62.0 ● | 85.7 ▲ | 17.4 | 15.2 |
| RA7 | 144 ● | 96.5 ● | 74.3 ▲ | 73.6 ▲ | 24.3 ▲ | 62.5 ● | 87.7 ▲ | 16.7 | 30.6 |
| RBA | 196 ● | 94.4 ▲ | 63.8 ▲ | 70.9 ▲ | 51.5 ▲ | 54.6 ▲ | 84.4 ▲ | 15.8 | 28.1 |
| RD1 | 202 ● | 82.7 ▲ | 74.8 ▲ | 76.7 ▲ | 30.7 ▲ | 61.4 ● | 95.2 ● | 19.3 | 31.2 |
| RVJ | 215 ● | 92.1 ▲ | 83.3 ● | 54.0 ▲ | 29.3 ▲ | 70.7 ● | 87.2 ▲ | 19.5 | 33.0 |
| **N29 Total** | **538** ● | **95.0** ● | **76.8** ● | **69.9** ▲ | **56.5** ▲ | **57.8** ▲ | **82.6** ▲ | **12.5** | **31.0** |
| RLQ | 107 ● | 100.0 ● | 75.7 ● | 69.2 ▲ | 58.9 ▲ | 57.0 ▲ | 100.0 ● | 15.0 | 30.8 |
| RTE | 298 ● | 95.0 ● | 76.2 ● | 77.9 ▲ | 57.7 ▲ | 58.4 ▲ | 80.1 ▲ | 13.8 | 32.2 |
| RWP50 | 133 ● | 91.0 ▲ | 78.9 ● | 52.6 ▲ | 51.9 ▲ | 57.1 ▲ | 68.3 ▲ | 7.5 | 28.6 |
| **N30 Total** | **1,075** ● | **96.2** ● | **83.7** ● | **85.9** ● | **64.0** ▲ | **66.7** ● | **92.9** ▲ | **21.4** | **27.8** |
| RD7 | 151 ● | 89.4 ▲ | 82.8 ● | 68.9 ▲ | 29.1 ▲ | 44.4 ▲ | 81.6 ▲ | 12.6 | 16.6 |
| RD8 | 103 ● | 84.5 ▲ | 89.3 ● | 76.7 ▲ | 49.5 ▲ | 76.7 ● | 87.8 ▲ | 30.1 | 39.8 |
| RHW | 182 ● | 97.3 ● | 74.2 ▲ | 86.3 ● | 44.5 ▲ | 63.7 ● | 98.4 ● | 10.4 | 46.7 |
| RN3 | 158 ● | 100.0 ● | 77.8 ● | 91.8 ● | 74.1 ▲ | 57.6 ▲ | 95.7 ● | 17.1 | 15.8 |
| RTH | 306 ● | 99.3 ● | 88.6 ● | 92.8 ● | 85.0 ● | 77.1 ● | 95.0 ● | 30.7 | 21.6 |
| RXQ | 172 ● | 99.4 ● | 88.4 ● | 88.4 ● | 77.9 ▲ | 72.7 ● | 93.7 ▲ | 23.3 | 31.4 |
| **N31 Total** | **1,061** ● | **97.5** ● | **77.9** ● | **74.5** ▲ | **53.7** ▲ | **59.9** ▲ | **90.6** ▲ | **15.7** | **27.2** |
| R1F | 101 ● | 99.0 ● | 78.2 ● | 94.1 ● | 93.1 ● | 61.4 ● | 87.0 ▲ | 11.9 | 42.6 |
| RHM | 214 ● | 98.6 ● | 72.9 ▲ | 50.5 ▲ | 22.9 ▲ | 74.3 ● | 87.5 ▲ | 18.7 | 45.8 |
| RHU | 332 ● | 97.3 ● | 80.1 ● | 71.4 ▲ | 68.7 ▲ | 45.2 ▲ | 96.5 ● | 17.2 | 5.7 |
| RN506 | 66 ● | 92.4 ▲ | 86.4 ● | 74.2 ▲ | 31.8 ▲ | 57.6 ▲ | 68.0 ▲ | 19.7 | 24.2 |
| RN541 | 90 ● | 97.8 ● | 78.9 ● | 88.9 ● | 54.4 ▲ | 66.7 ● | 96.2 ● | 7.8 | 32.2 |
| RNZ | 107 ● | 99.1 ● | 81.3 ● | 89.7 ● | 45.8 ▲ | 69.2 ● | 95.3 ● | 17.8 | 32.7 |
| RYR16 | 151 ● | 96.0 ● | 73.5 ▲ | 82.8 ● | 53.0 ▲ | 61.6 ● | 89.5 ▲ | 12.6 | 32.5 |
| **N32 Total** | **588** ● | **92.5** ▲ | **83.7** ● | **85.9** ● | **57.7** ▲ | **57.8** ▲ | **94.1** ▲ | **15.0** | **20.7** |
| RA2 | 98 ● | 82.7 ▲ | 94.9 ● | 76.5 ▲ | 23.5 ▲ | 59.2 ▲ | 94.7 ▲ | 10.2 | 28.6 |
| RDU | 176 ● | 84.7 ▲ | 79.5 ● | 89.2 ● | 51.1 ▲ | 59.1 ▲ | 96.1 ● | 18.2 | 27.8 |
| RTK | 135 ● | 100.0 ● | 78.5 ● | 87.4 ● | 75.6 ▲ | 45.9 ▲ | 86.2 ▲ | 14.1 | 8.1 |
| RTP | 179 ● | 100.0 ● | 85.5 ● | 86.6 ● | 69.3 ▲ | 64.8 ● | 95.3 ● | 15.1 | 19.0 |
| **N33 Total** | **698** ● | **90.4** ▲ | **76.2** ● | **83.7** ● | **59.6** ▲ | **56.6** ▲ | **90.4** ▲ | **10.0** | **32.1** |
| RXC | 256 ● | 98.0 ● | 77.3 ● | 85.5 ● | 62.9 ▲ | 57.4 ▲ | 90.7 ▲ | 8.6 | 31.6 |
| RXH | 263 ● | 82.1 ▲ | 76.0 ● | 77.9 ▲ | 51.0 ▲ | 62.0 ● | 98.0 ● | 13.3 | 36.9 |
| RYR18 | 179 ● | 91.6 ▲ | 74.9 ▲ | 89.4 ● | 67.6 ▲ | 47.5 ▲ | 80.5 ▲ | 7.3 | 25.7 |

**Table 1 (continued)**
**Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **N34 Total** | **948** ● | **91.8** ▲ | **77.1** ● | **34.0** ▲ | **30.2** ▲ | **59.6** ▲ | **89.0** ▲ | **13.7** | **35.1** |
| RN7 | 113 ● | 100.0 ● | 92.9 ● | 98.2 ● | 83.2 ● | 75.2 ● | 90.5 ▲ | 21.2 | 33.6 |
| RPA | 177 ● | 98.3 ● | 76.8 ● | 8.5 ▲ | 8.5 ▲ | 55.9 ▲ | 93.7 ▲ | 15.3 | 34.5 |
| RVV[#] | 467 ● | 83.9 ▲ | 69.0 ▲ | 4.3 ▲ | 4.1 ▲ | 51.8 ▲ | 88.0 ▲ | 8.8 | 34.5 |
| RWF | 191 ● | 100.0 ● | 88.0 ● | 92.1 ● | 82.7 ● | 72.8 ● | 82.1 ▲ | 19.9 | 38.2 |
| **N35 Total** | **1,182** ● | **91.5** ▲ | **75.0** ● | **85.3** ● | **71.2** ▲ | **60.2** ● | **87.6** ▲ | **18.5** | **30.1** |
| RJD | 135 ● | 96.3 ● | 81.5 ● | 89.6 ● | 65.9 ▲ | 66.7 ● | 79.7 ▲ | 19.3 | 33.3 |
| RJE | 323 ● | 86.1 ▲ | 68.1 ▲ | 80.5 ● | 53.3 ▲ | 58.8 ▲ | 91.3 ▲ | 13.3 | 38.7 |
| RL4 | 228 ● | 100.0 ● | 70.6 ▲ | 96.5 ● | 95.6 ● | 57.0 ▲ | 91.5 ▲ | 23.2 | 18.9 |
| RNA | 207 ● | 84.1 ▲ | 80.2 ● | 88.9 ● | 74.4 ▲ | 59.4 ▲ | 90.4 ▲ | 18.8 | 20.8 |
| RWP31 | 44 ● | 81.8 ▲ | 90.9 ● | 54.5 ▲ | 52.3 ▲ | 68.2 ● | 78.3 ▲ | 20.5 | 29.5 |
| RXW | 245 ● | 96.3 ● | 77.1 ● | 81.2 ● | 75.9 ▲ | 60.4 ● | 85.8 ▲ | 20.0 | 35.5 |
| **N36 Total** | **2,676** ● | **98.8** ● | **74.4** ▲ | **85.7** ● | **66.9** ▲ | **61.4** ● | **87.7** ▲ | **13.6** | **33.1** |
| RE9 | 148 ● | 98.6 ● | 66.9 ▲ | 98.6 ● | 90.5 ● | 58.1 ▲ | 98.2 ● | 14.2 | 29.7 |
| RLN | 296 ● | 98.0 ● | 81.1 ● | 87.2 ● | 64.9 ▲ | 65.9 ● | 80.1 ▲ | 16.9 | 41.2 |
| RNL | 236 ● | 98.7 ● | 83.5 ● | 82.6 ● | 58.5 ▲ | 62.7 ● | 90.1 ▲ | 17.8 | 34.7 |
| RR7 | 208 ● | 100.0 ● | 69.7 ▲ | 96.2 ● | 72.1 ▲ | 54.8 ▲ | 93.3 ▲ | 12.5 | 23.6 |
| RTD | 308 ● | 98.1 ● | 76.6 ● | 84.4 ● | 69.5 ▲ | 66.2 ● | 84.7 ▲ | 15.9 | 33.8 |
| RTF | 348 ● | 98.3 ● | 72.7 ▲ | 86.8 ● | 46.6 ▲ | 55.7 ▲ | 77.9 ▲ | 9.8 | 19.0 |
| RTR | 384 ● | 100.0 ● | 74.5 ▲ | 90.4 ● | 87.8 ● | 62.5 ● | 94.0 ▲ | 12.2 | 35.4 |
| RVW | 307 ● | 96.7 ● | 73.0 ▲ | 88.6 ● | 60.9 ▲ | 67.4 ● | 93.6 ▲ | 12.4 | 47.6 |
| RXP | 441 ● | 100.0 ● | 70.5 ▲ | 70.7 ▲ | 62.4 ▲ | 58.0 ▲ | 88.9 ▲ | 13.2 | 30.8 |
| **N37 Total** | **1,552** ● | **95.0** ● | **78.5** ● | **74.9** ▲ | **54.6** ▲ | **67.3** ● | **92.4** ▲ | **12.8** | **39.7** |
| RC1 | 111 ● | 99.1 ● | 85.6 ● | 74.8 ▲ | 49.5 ▲ | 72.1 ● | 86.2 ▲ | 15.3 | 36.9 |
| RCX | 153 ● | 98.0 ● | 88.2 ● | 92.8 ● | 66.7 ▲ | 71.9 ● | 91.9 ▲ | 15.7 | 34.6 |
| RGM ◆ | 13 ◆ | 100.0 ◆ | 100.0 ◆ | 92.3 ◆ | 76.9 ◆ | 84.6 ◆ | 0.0 ◆ | 69.2 ◆ | 15.4 ◆ |
| RGN | 182 ● | 100.0 ● | 84.6 ● | 88.5 ● | 49.5 ▲ | 77.5 ● | 91.7 ▲ | 15.4 | 55.5 |
| RGP | 163 ● | 88.3 ▲ | 66.3 ▲ | 65.0 ▲ | 35.0 ▲ | 61.3 ● | 97.1 ● | 8.0 | 31.9 |
| RGQ | 162 ● | 96.3 ● | 77.2 ● | 86.4 ● | 63.0 ▲ | 80.2 ● | 81.8 ▲ | 11.1 | 64.8 |
| RGR | 147 ● | 94.6 ▲ | 79.6 ● | 74.1 ▲ | 54.4 ▲ | 55.8 ▲ | 96.6 ● | 10.2 | 25.2 |
| RGT | 233 ● | 99.6 ● | 90.6 ● | 90.1 ● | 89.7 ● | 68.7 ● | 100.0 ● | 10.7 | 44.2 |
| RM1 | 322 ● | 87.9 ▲ | 64.9 ▲ | 59.6 ▲ | 43.5 ▲ | 59.0 ▲ | 97.7 ● | 11.8 | 30.1 |
| RQQ | 66 ● | 98.5 ● | 78.8 ● | 10.6 ▲ | 4.5 ▲ | 60.6 ● | 90.0 ▲ | 16.7 | 37.9 |
| **N38 Total** | **827** ● | **99.5** ● | **85.1** ● | **85.4** ● | **69.5** ▲ | **60.2** ● | **92.7** ▲ | **14.5** | **25.8** |
| RAJ | 219 ● | 98.2 ● | 80.4 ● | 82.6 ● | 71.7 ▲ | 56.6 ▲ | 93.3 ▲ | 17.8 | 16.4 |
| RDD | 203 ● | 100.0 ● | 89.7 ● | 84.7 ● | 66.5 ▲ | 60.6 ● | 89.9 ▲ | 11.8 | 18.7 |
| RDE | 238 ● | 100.0 ● | 82.4 ● | 84.0 ● | 59.7 ▲ | 73.1 ● | 100.0 ● | 14.7 | 50.8 |
| RQ8 | 167 ● | 100.0 ● | 89.8 ● | 91.6 ● | 84.4 ● | 46.1 ▲ | 84.1 ▲ | 13.2 | 10.8 |
| **N39 Total** | **2,253** ● | **98.0** ● | **75.3** ● | **85.4** ● | **59.6** ▲ | **64.0** ● | **93.1** ▲ | **18.4** | **30.2** |
| RJF | 137 ● | 97.1 ● | 78.8 ● | 95.6 ● | 86.1 ● | 59.1 ▲ | 97.8 ● | 19.7 | 19.0 |
| RK5 | 207 ● | 95.2 ● | 81.6 ● | 100.0 ● | 97.6 ● | 64.7 ● | 88.4 ▲ | 15.0 | 26.6 |
| RNQ | 201 ● | 93.5 ▲ | 66.7 ▲ | 90.5 ● | 78.1 ▲ | 59.7 ▲ | 96.6 ● | 15.4 | 25.9 |
| RNS | 177 ● | 98.3 ● | 63.3 ▲ | 92.1 ● | 45.2 ▲ | 56.5 ▲ | 84.5 ▲ | 16.4 | 29.4 |
| RTG | 289 ● | 98.6 ● | 81.3 ● | 81.0 ● | 59.2 ▲ | 71.3 ● | 97.6 ● | 21.1 | 34.9 |
| RWD | 334 ● | 99.7 ● | 72.5 ▲ | 88.0 ● | 36.5 ▲ | 59.3 ▲ | 88.6 ▲ | 18.6 | 24.3 |
| RWE | 474 ● | 99.2 ● | 67.1 ▲ | 81.2 ● | 57.6 ▲ | 65.0 ● | 95.3 ● | 18.4 | 35.2 |
| RX1 | 430 ● | 98.8 ● | 87.2 ● | 75.8 ▲ | 50.7 ▲ | 67.7 ● | 94.3 ▲ | 19.8 | 33.5 |
| **England Total** | **31,003** ● | **95.6** ● | **75.5** ● | **81.9** ● | **61.2** ▲ | **61.0** ● | **89.5** ▲ | **15.5** | **29.6** |

[#] East Kent Hospitals University Foundation Trust (RVV) has had local issues with their system uploader, resulting in inaccuracies to their reported data.

**Table 1 (continued)**
**Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **NWW Total** | **476** ● | **99.2** ● | **75.0** ● | **93.3** ● | **N/A** | **60.9** ● | **90.8** ▲ | **12.0** | **38.0** |
| 7A1A1 | 193 ● | 97.9 ● | 79.8 ● | 97.4 ● | N/A | 63.7 ● | 88.2 ▲ | 12.4 | 41.5 |
| 7A1A4 | 155 ● | 100.0 ● | 69.0 ▲ | 91.0 ● | N/A | 57.4 ▲ | 92.3 ▲ | 16.1 | 34.2 |
| 7A1AU | 128 ● | 100.0 ● | 75.0 ● | 89.8 ● | N/A | 60.9 ● | 92.4 ▲ | 6.3 | 37.5 |
| **SWCN Total** | **1,556** ● | **99.5** ● | **71.5** ▲ | **86.9** ● | **N/A** | **57.7** ▲ | **91.5** ▲ | **9.4** | **34.8** |
| 7A2AG | 29 ▲ | 100.0 ● | 65.5 ▲ | 51.7 ▲ | N/A | 48.3 ▲ | 66.7 ▲ | 3.4 | 20.7 |
| 7A2AJ | 39 ● | 100.0 ● | 82.1 ● | 12.8 ▲ | N/A | 61.5 ● | 100.0 ● | 5.1 | 23.1 |
| 7A2AL | 117 ● | 100.0 ● | 86.3 ● | 87.2 ● | N/A | 73.5 ● | 97.6 ● | 13.7 | 23.1 |
| 7A2BL | 90 ● | 94.4 ▲ | 72.2 ▲ | 98.9 ● | N/A | 51.1 ▲ | 90.0 ▲ | 15.6 | 18.9 |
| 7A3B7 | 99 ● | 100.0 ● | 63.6 ▲ | 80.8 ● | N/A | 65.7 ● | 64.9 ▲ | 7.1 | 49.5 |
| 7A3C4 | 90 ● | 100.0 ● | 73.3 ▲ | 92.2 ● | N/A | 54.4 ▲ | 100.0 ● | 7.8 | 33.3 |
| 7A3C7 | 89 ■ | 100.0 ● | 76.4 ● | 89.9 ● | N/A | 60.7 ● | 100.0 ● | 6.7 | 32.6 |
| 7A3CJ | 83 ● | 100.0 ● | 74.7 ▲ | 88.0 ● | N/A | 61.4 ● | 69.2 ▲ | 7.2 | 39.8 |
| 7A4C1 | 312 ● | 100.0 ● | 67.0 ▲ | 91.7 ● | N/A | 52.6 ▲ | 97.6 ● | 9.3 | 36.9 |
| 7A5B1 | 136 ● | 98.5 ● | 78.7 ● | 84.6 ● | N/A | 60.3 ● | 93.5 ▲ | 12.5 | 41.9 |
| 7A5B3 | 114 ● | 100.0 ● | 75.4 ● | 94.7 ● | N/A | 75.4 ● | 94.9 ▲ | 8.8 | 56.1 |
| 7A6AM | 123 ● | 100.0 ● | 61.8 ▲ | 94.3 ● | N/A | 49.6 ▲ | 93.3 ▲ | 8.1 | 33.3 |
| 7A6AR | 235 ● | 99.6 ● | 67.2 ▲ | 85.1 ● | N/A | 49.4 ▲ | 96.1 ● | 8.9 | 27.7 |
| **Wales Total** | **2,032** ● | **99.4** ● | **72.3** ▲ | **88.4** ● | **N/A** | **58.5** ▲ | **91.3** ▲ | **10.0** | **35.6** |
| **England and Wales Total** | **33,035** ● | **95.8** ● | **75.3** ● | **82.3** ● | **N/A** | **60.8** ● | **89.6** ▲ | **15.2** | **30.0** |
| **Range Network** | | | | | | | | | |
| Min | | 90.4 | 66.3 | 34.0 | 30.2 | 47.7 | 79.1 | 9.4 | 18.3 |
| LQ | | 94.1 | 71.9 | 79.6 | 56.0 | 57.8 | 84.3 | 12.7 | 24.3 |
| Median | | 95.6 | 75.8 | 84.2 | 61.0 | 60.4 | 90.5 | 14.7 | 30.0 |
| UQ | | 98.2 | 78.4 | 85.9 | 67.7 | 62.3 | 92.4 | 16.9 | 33.1 |
| Max | | 99.5 | 85.7 | 96.8 | 86.0 | 67.3 | 94.5 | 21.4 | 39.7 |
| **Range Trust** | | | | | | | | | |
| Min | | 78.7 | 53.9 | 4.3 | 3.7 | 37.2 | 60.0 | 0.0 | 5.7 |
| LQ | | 94.6 | 69.0 | 77.6 | 50.7 | 56.5 | 85.8 | 11.5 | 23.1 |
| Median | | 97.7 | 76.2 | 86.8 | 65.9 | 60.6 | 91.3 | 14.7 | 30.1 |
| UQ | | 99.4 | 81.7 | 91.0 | 77.5 | 65.0 | 95.4 | 17.9 | 35.3 |
| Max | | 100.0 | 95.5 | 100.0 | 98.9 | 88.4 | 100.0 | 30.7 | 64.8 |
| **Last year's results (including mesothelioma)** | | | | | | | | | |
| **2011 Total** | 33,374 ● | 96.2 ● | 77.0 ● | 79.7 ▲ | 58.8 ▲ | 60.2 ● | 87.8 ▲ | 14.7 | 29.3 |
| Difference | -339 | -0.4 | -1.7 | 2.6 | 2.4 | 0.6 | 1.8 | 0.5 | 0.7 |
| **Last year's results (excluding mesothelioma)** | | | | | | | | | |
| **2011 Total** | 31,557 ● | 96.3 ● | 76.1 ● | 79.5 ▲ | 58.6 ▲ | 59.8 ▲ | 87.9 ▲ | 13.6 | 29.3 |
| Difference | 1,478 | -0.5 | -0.8 | 2.8 | 2.6 | 1.0 | 1.7 | 1.3 | 0.7 |

Counts aggregated by place first seen Trust.

| Indicator | Definition | ▲ | ■ | ● |
|---|---|---|---|---|
| Actual number | Number of cases (excluding mesothelioma) with date first seen in year specified | <50% | 50-75% | ≥75% |
| Discussed at MDT (%) | Complete when MDT discussion indicator = Y (denominator = all cases excluding mesothelioma) | <95% | | ≥95% |
| Histological diagnosis (%) | Complete when histology is present or basis of diagnosis equals 5, 6 or 7 (denominator = all cases excluding mesothelioma) | <75% | | ≥75% |
| Patient seen by Nurse Specialist (%) | Complete when patient assessed by a Lung Cancer Nurse Specialist = Y (denominator = all cases excluding mesothelioma) | <80% | | ≥80% |
| Nurse Specialist present at diagnosis (%) | Complete when Lung Cancer Nurse Specialist present when received diagnosis = Y (denominator = all English cases excluding mesothelioma) | <80% | | ≥80% |
| % having active treatment | Complete when date present for brachytherapy, anti-cancer drug regimen, surgery or teletherapy (denominator = all cases excluding mesothelioma) | <60% | | ≥60% |
| % of patients receiving CT scan before bronchoscopy | Complete when CT scan date before or equal to bronchoscopy date (denominator = cases excluding mesothelioma with bronchoscopy date present) | <95% | | ≥95% |
| % receiving surgery all cases | Complete when surgery procedure date is present (denominator = all cases excluding mesothelioma) | | | |
| % receiving radiotherapy | Complete when either teletherapy treatment course start date or brachytherapy therapy treatment course start date is present (denominator = all cases excluding mesothelioma) | | | |

◆ – Tertiary Trust standards do not apply

**Table 2**
**Process and Clinical Outcomes for Guernsey 2012**

| Code | Actual number | Discussed at MDT (%) | Histological diagnosis (%) | Patient seen by Nurse Specialist (%) | Nurse Specialist present at diagnosis (%) | % Having active treatment | % of patients receiving CT before bronchoscopy | % receiving surgery all cases | % receiving radiotherapy |
|---|---|---|---|---|---|---|---|---|---|
| **2012 Total** | **40** ● | **100.0** ● | **77.5** ● | **N/A** | **40.0** ▲ | **42.5** ▲ | **100.0** ● | **5.0** | **2.5** |
| **2011 Total** | **41** ● | **100.0** ● | **75.6** ● | **N/A** | **65.9** ▲ | **56.1** ▲ | **94.7** ▲ | **7.3** | **19.5** |
| Difference | -1 | 0 | 1.9 | N/A | -25.9 | -13.6 | 5.3 | -2.3 | -17 |

**Table 3**
**Process and Clinical Outcomes for Scotland 2012**

| Health Board | Actual number (Total) | % of expected | Discussed at MDT (%) | Histo-logical diagnosis (%) | Patient seen by Nurse Specialist (%) | % having active treatment | % of patients receiving CT before bronch-oscopy | % receiving surgery all cases | % receiving radio-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SCAN** | **1,219** | **90** | **96.6** | **67.0** | **81.9** | **55.9** | **96.7** | **12.1** | **35.3** | **628** | **21.0** | **147** | **70.1** |
| Borders | 86 | 86 | 100.0 | 75.6 | 94.2 | 60.5 | 100.0 | 9.3 | 36.0 | 53 | 11.3 | 10 | 90.0 |
| Dumfries and Galloway | 123 | 85 | 92.7 | 65.0 | 65.9 | 55.3 | 100.0 | 8.1 | 37.4 | 58 | 17.2 | 19 | 78.9 |
| Fife | 329 | 98 | 100.0 | 66.0 | 84.2 | 55.0 | 99.2 | 11.6 | 34.0 | 173 | 20.8 | 35 | 62.9 |
| Lothian | 681 | 88 | 95.3 | 66.8 | 82.1 | 55.8 | 93.7 | 13.5 | 35.4 | 344 | 23.3 | 83 | 68.7 |
| **WoSCAN** | **2,585** | **96** | **95.9** | **74.3** | **86.8** | **60.2** | **89.8** | **13.8** | **35.3** | **1,417** | **23.5** | **363** | **70.0** |
| Ayrshire and Arran | 371 | 106 | 97.8 | 76.0 | 79.2 | 63.3 | 90.3 | 12.7 | 44.7 | 201 | 20.9 | 58 | 70.7 |
| Clyde | 391 | 99 | 92.8 | 72.6 | 93.1 | 49.9 | 76.5 | 12.3 | 25.1 | 212 | 21.2 | 56 | 53.6 |
| Forth Valley | 215 | 84 | 98.6 | 74.0 | 94.4 | 68.4 | 97.0 | 13.5 | 40.5 | 119 | 24.4 | 34 | 64.7 |
| Lanarkshire | 495 | 90 | 98.8 | 79.4 | 90.9 | 64.4 | 87.8 | 16.4 | 31.9 | 298 | 24.2 | 69 | 71.0 |
| North Glasgow | 707 | 100 | 96.0 | 74.1 | 82.7 | 63.5 | 95.2 | 13.9 | 39.0 | 391 | 23.5 | 85 | 80.0 |
| South Glasgow | 406 | 91 | 92.1 | 68.7 | 86.0 | 52.0 | 92.8 | 13.5 | 31.5 | 196 | 27.0 | 61 | 72.1 |
| **NoSCAN** | **1,006** | **91** | **93.6** | **74.9** | **83.3** | **64.6** | **95.5** | **8.3** | **44.3** | **596** | **12.9** | **122** | **73.0** |
| Grampian | 357 | 84 | 86.1 | 74.3 | 71.0 | 69.2 | 94.0 | 8.8 | 51.5 | 218 | 14.2 | 42 | 69.0 |
| Orkney | 0 | 0 | | | | | | | | | | | |
| Shetland | 16 | 229 | | | | | | | | | | | |
| Highland | 220 | 101 | 95.8 | 78.9 | 82.4 | 61.7 | 99.0 | 6.1 | 37.9 | 160 | 8.8 | 36 | 83.3 |
| Argyll and Clyde (H) | 27 | 79 | | | | | | | | | | | |
| Western Isles | 14 | 117 | | | | | | | | | | | |
| Tayside | 372 | 92 | 99.7 | 72.6 | 96.2 | 62.1 | 95.0 | 9.1 | 41.7 | 218 | 14.7 | 44 | 68.2 |
| **Total** | **4,810** | **93.2** | **95.6** | **72.6** | **84.8** | **60.0** | **92.4** | **12.2** | **37.2** | **2,641** | **20.5** | **632** | **70.6** |
| **2011 Total** | **4,655** | **91.7** | **95.3** | **71.8** | **81.2** | **59.7** | **91.1** | **10.7** | **37.9** | **2,531** | **18.5** | **654** | **67.6** |
| Difference | 155 | 1.5 | 0.3 | 0.7 | 3.6 | 0.3 | 1.3 | 1.6 | -0.7 | 110 | 2.0 | -22 | 3.0 |
| **Range Health Board** | | | | | | | | | | | | | |
| Min | | 0 | 86.1 | 65.0 | 65.9 | 49.9 | 76.5 | 6.1 | 25.1 | | 8.8 | | 53.6 |
| LQ | | 85 | 92.8 | 68.7 | 82.1 | 55.3 | 92.8 | 9.1 | 34.0 | | 14.7 | | 68.2 |
| Median | | 91 | 96.0 | 74.0 | 84.2 | 61.7 | 95.0 | 12.3 | 37.4 | | 20.9 | | 70.7 |
| UQ | | 100 | 98.8 | 75.6 | 93.1 | 63.5 | 99.0 | 13.5 | 40.5 | | 23.5 | | 78.9 |
| Max | | 229 | 100.0 | 79.4 | 96.2 | 69.2 | 100.0 | 16.4 | 51.5 | | 27.0 | | 90.0 |

**Table 4**
**Further Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemo-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **N01 Total** | **1,086** | **218** | **38.5** | **251** | **70.9** | **627** | **16.1** | **624** | **9.1** | **138** | **80.4** |
| RTX | 251 | 54 | 27.8 | 67 | 65.7 | 125 | 17.6 | 125 | 12.8 | 28 | 92.9 |
| RXL | 276 | 48 | 35.4 | 66 | 72.7 | 176 | 9.7 | 174 | 8.6 | 36 | 88.9 |
| RXN | 244 | 50 | 48.0 | 50 | 80.0 | 157 | 17.2 | 157 | 6.4 | 34 | 82.4 |
| RXR | 315 | 66 | 42.4 | 68 | 67.6 | 169 | 20.7 | 168 | 9.5 | 40 | 62.5 |
| **N02 Total** | **2,302** | **571** | **45.5** | **440** | **51.1** | **1,320** | **27.0** | **1,284** | **17.6** | **248** | **69.4** |
| RBT | 122 | 25 | 56.0 | 13 | 53.8 | 69 | 34.8 | 70 | 18.6 | 10 | 60.0 |
| RJN | 135 | 35 | 37.1 | 29 | 72.4 | 80 | 25.0 | 80 | 20.0 | 11 | 90.9 |
| RM2 | 255 | 77 | 57.1 | 51 | 52.9 | 168 | 33.9 | 165 | 7.9 | 35 | 71.4 |
| RM3 | 196 | 47 | 55.3 | 33 | 30.3 | 118 | 30.5 | 113 | 17.7 | 27 | 63.0 |
| RMC | 217 | 57 | 42.1 | 28 | 50.0 | 98 | 32.7 | 92 | 6.5 | 17 | 70.6 |
| RMP | 161 | 28 | 42.9 | 28 | 64.3 | 85 | 20.0 | 85 | 20.0 | 21 | 81.0 |
| RRF | 253 | 59 | 54.2 | 56 | 44.6 | 151 | 30.5 | 142 | 12.7 | 29 | 62.1 |
| RW3 | 226 | 68 | 45.6 | 42 | 45.2 | 155 | 23.9 | 154 | 15.6 | 25 | 64.0 |
| RW6 | 534 | 120 | 38.3 | 96 | 59.4 | 276 | 24.3 | 276 | 26.8 | 58 | 72.4 |
| RWJ | 202 | 55 | 32.7 | 64 | 42.2 | 119 | 17.6 | 106 | 23.6 | 15 | 60.0 |
| **N03 Total** | **1,849** | **480** | **60.2** | **264** | **63.3** | **1,112** | **30.8** | **1,104** | **11.4** | **206** | **68.4** |
| LLCU | 420 | 136 | 69.9 | 54 | 66.7 | 282 | 37.9 | 280 | 6.1 | 58 | 63.8 |
| RBL | 315 | 77 | 61.0 | 42 | 69.0 | 175 | 30.3 | 171 | 12.9 | 33 | 66.7 |
| RBN | 249 | 58 | 69.0 | 27 | 59.3 | 153 | 28.1 | 155 | 9.0 | 33 | 78.8 |
| REM | 327 | 94 | 53.2 | 55 | 58.2 | 195 | 32.8 | 192 | 17.7 | 35 | 74.3 |
| RJR | 196 | 50 | 46.0 | 30 | 46.7 | 103 | 28.2 | 103 | 15.5 | 20 | 75.0 |
| RVY | 156 | 31 | 61.3 | 25 | 76.0 | 94 | 25.5 | 94 | 8.5 | 9 | 77.8 |
| RWW | 181 | 33 | 42.4 | 30 | 70.0 | 106 | 18.9 | 105 | 13.3 | 18 | 44.4 |
| **N06 Total** | **2,015** | **509** | **46.4** | **370** | **67.6** | **1,206** | **26.0** | **1,158** | **12.5** | **252** | **72.6** |
| RAE | 266 | 81 | 38.3 | 57 | 59.6 | 133 | 32.3 | 132 | 11.4 | 26 | 84.6 |
| RCB | 194 | 50 | 44.0 | 26 | 73.1 | 124 | 25.0 | 123 | 16.3 | 15 | 66.7 |
| RCD | 95 | 19 | 42.1 | 17 | 76.5 | 62 | 19.4 | 54 | 13.0 | 11 | 72.7 |
| RCF | 145 | 33 | 39.4 | 30 | 70.0 | 83 | 22.9 | 81 | 12.3 | 18 | 72.2 |
| RR8 | 608 | 175 | 41.1 | 101 | 69.3 | 376 | 25.3 | 376 | 10.4 | 74 | 74.3 |
| RWY | 251 | 51 | 62.7 | 68 | 73.5 | 158 | 24.1 | 154 | 12.3 | 38 | 81.6 |
| RXF | 456 | 100 | 58.0 | 71 | 60.6 | 270 | 28.1 | 238 | 14.7 | 70 | 62.9 |
| **N07 Total** | **790** | **160** | **60.6** | **183** | **55.2** | **450** | **23.8** | **359** | **20.1** | **73** | **69.9** |
| RCC | 108 | 15 | 46.7 | 15 | 66.7 | 58 | 13.8 | 13 | 15.4 | 2 | 0.0 |
| RJL | 272 | 46 | 69.6 | 73 | 53.4 | 156 | 28.2 | 136 | 11.8 | 22 | 81.8 |
| RV9 | 10 | 0 | 0.0 | 1 | 100.0 | 5 | 0.0 | 0 | 0.0 | 1 | 100.0 |
| RWA | 400 | 99 | 58.6 | 94 | 54.3 | 231 | 23.8 | 210 | 25.7 | 48 | 66.7 |
| **N08 Total** | **1,285** | **276** | **52.9** | **271** | **63.8** | **741** | **22.4** | **684** | **11.4** | **160** | **63.8** |
| RFF | 163 | 26 | 57.7 | 37 | 70.3 | 98 | 20.4 | 86 | 20.9 | 28 | 67.9 |
| RFR | 192 | 38 | 50.0 | 31 | 61.3 | 92 | 13.0 | 85 | 9.4 | 39 | 61.5 |
| RFS | 172 | 37 | 35.1 | 43 | 48.8 | 93 | 16.1 | 80 | 15.0 | 25 | 56.0 |
| RHQ | 423 | 102 | 58.8 | 73 | 79.5 | 250 | 30.4 | 251 | 9.6 | 34 | 67.6 |
| RP5 | 335 | 73 | 53.4 | 87 | 56.3 | 208 | 20.7 | 182 | 8.8 | 34 | 64.7 |
| **N11 Total** | **1,124** | **227** | **52.9** | **258** | **58.5** | **728** | **21.6** | **717** | **14.5** | **118** | **63.6** |
| RBK | 153 | 21 | 52.4 | 38 | 65.8 | 102 | 17.6 | 99 | 19.2 | 23 | 78.3 |
| RR1 | 455 | 90 | 47.8 | 85 | 60.0 | 260 | 21.2 | 252 | 9.9 | 40 | 60.0 |
| RRK | 265 | 68 | 60.3 | 62 | 64.5 | 195 | 25.1 | 195 | 15.9 | 28 | 53.6 |
| RXK | 251 | 48 | 52.1 | 73 | 47.9 | 171 | 20.5 | 171 | 17.0 | 27 | 66.7 |

**Table 4 (continued)**
**Further Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemo-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **N12 Total** | **505** ● | **100** | **59.0** ● | **94** | **47.9** ▲ | **323** | **23.8** | **266** | **7.1** ● | **60** | **56.7** ▲ |
| RJC | 90 ● | 13 | 53.8 ● | 16 | 56.3 ● | 59 | 18.6 | 51 | 19.6 ● | 6 | 66.7 ● |
| RKB | 209 ● | 37 | 67.6 ● | 47 | 42.6 ▲ | 132 | 24.2 | 90 | 4.4 ● | 24 | 50.0 ▲ |
| RLT | 126 ● | 33 | 48.5 ▲ | 19 | 63.2 ● | 81 | 21.0 | 74 | 4.1 ● | 17 | 58.8 ▲ |
| RWP00 | 80 ● | 17 | 64.7 ● | 12 | 33.3 ▲ | 51 | 33.3 | 51 | 3.9 ● | 13 | 61.5 ▲ |
| **N20 Total** | **585** ● | **82** | **35.4** ▲ | **104** | **48.1** ▲ | **344** | **18.0** | **332** | **25.9** ▲ | **69** | **49.3** ▲ |
| RC9 | 213 ● | 39 | 33.3 ▲ | 33 | 48.5 ▲ | 127 | 22.8 | 118 | 35.6 ▲ | 24 | 20.8 ▲ |
| RWG | 193 ● | 15 | 20.0 ▲ | 30 | 23.3 ▲ | 113 | 12.4 | 110 | 9.1 ● | 24 | 54.2 ▲ |
| RWH | 179 ● | 28 | 46.4 ▲ | 41 | 65.9 ● | 104 | 18.3 | 104 | 32.7 ▲ | 21 | 76.2 ● |
| **N21 Total** | **797** ● | **145** | **58.6** ● | **206** | **51.9** ▲ | **525** | **21.0** | **461** | **13.0** ● | **76** | **65.8** ● |
| RAS | 131 ● | 13 | 46.2 ▲ | 28 | 39.3 ▲ | 67 | 23.9 | 37 | 27.0 ▲ | 13 | 46.2 ▲ |
| RC3 | 67 ● | 15 | 33.3 ▲ | 20 | 40.0 ▲ | 35 | 20.0 | 34 | 5.9 ● | 2 | 100.0 ● |
| RFW | 124 ● | 20 | 50.0 ▲ | 24 | 45.8 ▲ | 65 | 15.4 | 58 | 15.5 ● | 12 | 66.7 ● |
| RQM | 70 ● | 15 | 60.0 ● | 27 | 59.3 ● | 56 | 17.9 | 54 | 7.4 ● | 4 | 100.0 ● |
| RT3 ◆ | 22 ◆ | 12 ◆ | 75.0 ◆ | 1 ◆ | 100.0 ◆ | 17 ◆ | 76.5 ◆ | 8 ◆ | 12.5 ◆ | 2 ◆ | 100.0 ◆ |
| RV8 | 106 ● | 21 | 76.2 ● | 24 | 54.2 ▲ | 73 | 26.0 | 66 | 13.6 ● | 13 | 69.2 ● |
| RYJ | 277 ● | 49 | 61.2 ● | 82 | 57.3 ● | 212 | 16.5 | 204 | 12.3 ● | 30 | 63.3 ▲ |
| **N22 Total** | **781** ● | **131** | **59.5** ● | **192** | **63.0** ● | **556** | **19.6** | **524** | **10.7** ● | **80** | **63.8** ▲ |
| RAL | 88 ● | 14 | 85.7 ● | 21 | 66.7 ● | 71 | 21.1 | 65 | 6.2 ● | 9 | 66.7 ● |
| RAP | 101 ● | 15 | 33.3 ▲ | 23 | 60.9 ● | 72 | 13.9 | 66 | 27.3 ▲ | 9 | 44.4 ▲ |
| RKE | 87 ● | 12 | 66.7 ● | 26 | 50.0 ▲ | 49 | 18.4 | 49 | 4.1 ● | 12 | 75.0 ● |
| RQW | 143 ● | 28 | 60.7 ● | 13 | 69.2 ● | 102 | 19.6 | 95 | 12.6 ● | 20 | 55.0 ▲ |
| RRV | 112 ● | 24 | 45.8 ▲ | 39 | 74.4 ● | 90 | 20.0 | 89 | 9.0 ● | 8 | 100.0 ● |
| RVL | 247 ● | 38 | 65.8 ● | 68 | 58.8 ● | 169 | 21.3 | 158 | 7.6 ● | 22 | 59.1 ▲ |
| **N23 Total** | **709** ● | **138** | **41.3** ▲ | **148** | **64.2** ● | **490** | **15.9** | **461** | **9.5** ● | **73** | **63.0** ▲ |
| R1HKH | 102 ● | 19 | 36.8 ▲ | 21 | 52.4 ▲ | 74 | 21.6 | 68 | 7.4 ● | 11 | 81.8 ● |
| R1HM0 | 112 ● | 25 | 68.0 ● | 15 | 73.3 ● | 84 | 25.0 | 76 | 11.8 ● | 13 | 76.9 ● |
| R1HNH | 86 ■ | 14 | 42.9 ▲ | 15 | 40.0 ▲ | 53 | 15.1 | 38 | 5.3 ● | 6 | 33.3 ▲ |
| RF4 | 311 ● | 55 | 34.5 ▲ | 75 | 70.7 ● | 223 | 10.3 | 223 | 4.0 ● | 33 | 60.6 ▲ |
| RQX | 98 ● | 25 | 32.0 ▲ | 22 | 63.6 ● | 56 | 17.9 | 56 | 33.9 ▲ | 10 | 50.0 ▲ |
| **N24 Total** | **719** ● | **126** | **44.4** ▲ | **171** | **62.6** ● | **525** | **15.8** | **504** | **17.3** ● | **76** | **71.1** ● |
| RJ1 | 125 ▲ | 30 | 53.3 ● | 34 | 82.4 ● | 103 | 23.3 | 99 | 25.3 ▲ | 16 | 75.0 ● |
| RJ2 | 104 ● | 13 | 61.5 ● | 26 | 46.2 ▲ | 74 | 16.2 | 65 | 26.2 ▲ | 11 | 81.8 ● |
| RJZ | 118 ● | 20 | 60.0 ● | 35 | 51.4 ▲ | 88 | 15.9 | 87 | 8.0 ● | 12 | 58.3 ▲ |
| RYQ | 372 ● | 63 | 31.7 ▲ | 76 | 64.5 ● | 260 | 12.7 | 253 | 15.0 ● | 37 | 70.3 ● |
| **N25 Total** | **588** ■ | **112** | **47.3** ▲ | **137** | **59.1** ● | **451** | **15.1** | **420** | **12.4** ● | **49** | **67.3** ● |
| RAX | 115 ■ | 23 | 60.9 ● | 22 | 50.0 ▲ | 85 | 20.0 | 83 | 12.0 ● | 13 | 69.2 ● |
| RJ6 | 133 ● | 25 | 36.0 ▲ | 26 | 53.8 ▲ | 99 | 12.1 | 94 | 8.5 ● | 12 | 66.7 ● |
| RJ7 | 141 ■ | 30 | 60.0 ● | 40 | 65.0 ● | 107 | 22.4 | 106 | 12.3 ● | 13 | 69.2 ● |
| RVR | 198 ● | 33 | 36.4 ▲ | 49 | 61.2 ● | 159 | 9.4 | 136 | 14.7 ● | 11 | 63.6 ▲ |
| **N26 Total** | **1,056** ● | **229** | **46.3** ▲ | **249** | **49.0** ▲ | **615** | **19.0** | **594** | **16.7** ● | **113** | **73.5** ● |
| RA9 | 186 ● | 40 | 50.0 ▲ | 44 | 52.3 ▲ | 117 | 20.5 | 107 | 3.7 ● | 20 | 70.0 ● |
| RBZ | 96 ● | 19 | 36.8 ▲ | 26 | 42.3 ▲ | 49 | 16.3 | 44 | 54.5 ▲ | 6 | 66.7 ● |
| REF | 247 ● | 46 | 56.5 ● | 63 | 36.5 ▲ | 153 | 18.3 | 153 | 16.3 ● | 28 | 67.9 ● |
| RH8 | 221 ● | 50 | 56.0 ● | 55 | 56.4 ● | 156 | 19.9 | 149 | 6.0 ● | 29 | 86.2 ● |
| RK9 | 306 ● | 74 | 33.8 ▲ | 61 | 55.7 ● | 140 | 18.6 | 141 | 26.2 ▲ | 30 | 70.0 ● |

**Table 4 (continued)**
**Further Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemo-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **N27 Total** | **476** ● | **96** | **46.9** ▲ | **151** | **51.0** ▲ | **288** | **19.8** | **275** | **13.1** ● | **42** | **66.7** ● |
| RBD | 122 ● | 29 | 31.0 ▲ | 31 | 61.3 ● | 75 | 16.0 | 70 | 15.7 ● | 7 | 57.1 ▲ |
| RD3 | 148 ● | 24 | 70.8 ● | 49 | 53.1 ▲ | 99 | 24.2 | 94 | 7.4 ● | 12 | 75.0 ● |
| RDZ | 206 ● | 43 | 44.2 ▲ | 71 | 45.1 ▲ | 114 | 18.4 | 111 | 16.2 ● | 23 | 65.2 ● |
| **N28 Total** | **938** ● | **187** | **52.4** ● | **198** | **66.2** ● | **602** | **25.6** | **601** | **12.5** ● | **82** | **72.0** ● |
| RA3 | 89 ● | 12 | 41.7 ▲ | 19 | 78.9 ● | 59 | 25.4 | 59 | 28.8 ▲ | 18 | 66.7 ● |
| RA4 | 92 ● | 19 | 42.1 ▲ | 21 | 66.7 ● | 51 | 29.4 | 51 | 27.5 ▲ | 4 | 100.0 ● |
| RA7 | 144 ● | 32 | 46.9 ▲ | 24 | 87.5 ● | 89 | 27.0 | 89 | 14.6 ● | 18 | 66.7 ● |
| RBA | 196 ● | 36 | 50.0 ▲ | 38 | 63.2 ● | 113 | 25.7 | 113 | 7.1 ● | 10 | 70.0 ● |
| RD1 | 202 ● | 43 | 48.8 ▲ | 50 | 52.0 ▲ | 125 | 28.0 | 125 | 4.0 ● | 22 | 72.7 ● |
| RVJ | 215 ● | 45 | 68.9 ● | 46 | 67.4 ● | 165 | 21.8 | 164 | 11.0 ● | 10 | 80.0 ● |
| **N29 Total** | **538** ● | **101** | **44.6** ▲ | **118** | **44.9** ▲ | **351** | **17.4** | **346** | **29.2** ▲ | **56** | **60.7** ▲ |
| RLQ | 107 ● | 23 | 43.5 ▲ | 25 | 52.0 ▲ | 68 | 22.1 | 66 | 22.7 ▲ | 11 | 63.6 ▲ |
| RTE | 298 ● | 60 | 46.7 ▲ | 71 | 36.6 ▲ | 193 | 19.2 | 190 | 40.0 ▲ | 30 | 50.0 ▲ |
| RWP50 | 133 ● | 18 | 38.9 ▲ | 22 | 63.6 ● | 90 | 10.0 | 90 | 11.1 ● | 15 | 80.0 ● |
| **N30 Total** | **1,075** ● | **211** | **62.1** ● | **242** | **52.1** ▲ | **763** | **27.8** | **724** | **17.5** ● | **125** | **69.6** ● |
| RD7 | 151 ● | 16 | 50.0 ▲ | 25 | 20.0 ▲ | 114 | 16.7 | 82 | 30.5 ▲ | 11 | 27.3 ▲ |
| RD8 | 103 ● | 13 | 84.6 ● | 14 | 71.4 ● | 84 | 35.7 | 83 | 14.5 ● | 8 | 62.5 ▲ |
| RHW | 182 ● | 31 | 38.7 ▲ | 49 | 34.7 ▲ | 121 | 14.9 | 118 | 24.6 ▲ | 13 | 46.2 ▲ |
| RN3 | 158 ● | 31 | 58.1 ● | 30 | 56.7 ● | 98 | 23.5 | 98 | 13.3 ● | 23 | 78.3 ● |
| RTH | 306 ● | 76 | 72.4 ● | 80 | 61.3 ● | 210 | 39.0 | 209 | 11.5 ● | 52 | 78.8 ● |
| RXQ | 172 ● | 42 | 64.3 ● | 44 | 63.6 ● | 134 | 29.9 | 133 | 18.0 ● | 18 | 77.8 ● |
| **N31 Total** | **1,061** ● | **191** | **60.2** ● | **298** | **48.7** ▲ | **702** | **22.2** | **681** | **13.1** ● | **120** | **72.5** ● |
| R1F | 101 ● | 9 | 66.7 ● | 26 | 46.2 ▲ | 69 | 15.9 | 65 | 24.6 ▲ | 10 | 90.0 ● |
| RHM | 214 ● | 49 | 55.1 ● | 46 | 54.3 ▲ | 131 | 28.2 | 130 | 6.9 ● | 25 | 88.0 ● |
| RHU | 332 ● | 62 | 66.1 ● | 97 | 39.2 ▲ | 230 | 24.3 | 226 | 13.3 ● | 36 | 63.9 ▲ |
| RN506 | 66 ● | 15 | 60.0 ● | 19 | 31.6 ▲ | 50 | 26.0 | 50 | 16.0 ● | 7 | 42.9 ▲ |
| RN541 | 90 ● | 12 | 41.7 ▲ | 25 | 68.0 ● | 59 | 10.2 | 58 | 15.5 ● | 12 | 91.7 ● |
| RNZ | 107 ● | 20 | 70.0 ● | 34 | 55.9 ● | 73 | 23.3 | 67 | 9.0 ● | 12 | 58.3 ▲ |
| RYR16 | 151 ● | 24 | 54.2 ● | 51 | 54.9 ▲ | 90 | 17.8 | 85 | 12.9 ● | 18 | 66.7 ● |
| **N32 Total** | **588** ● | **108** | **50.9** ▲ | **125** | **62.4** ● | **418** | **18.4** | **415** | **18.1** ● | **67** | **53.7** ▲ |
| RA2 | 98 ● | 13 | 46.2 ▲ | 3 | 66.7 ● | 73 | 11.0 | 73 | 27.4 ▲ | 16 | 50.0 ▲ |
| RDU | 176 ● | 36 | 61.1 ● | 35 | 65.7 ● | 114 | 25.4 | 114 | 8.8 ● | 25 | 52.0 ▲ |
| RTK | 135 ● | 31 | 41.9 ▲ | 42 | 50.0 ▲ | 99 | 13.1 | 96 | 3.1 ● | 5 | 40.0 ▲ |
| RTP | 179 ● | 28 | 50.0 ▲ | 45 | 71.1 ● | 132 | 20.5 | 132 | 31.8 ▲ | 21 | 61.9 ▲ |
| **N33 Total** | **698** ● | **115** | **44.3** ▲ | **157** | **45.2** ▲ | **433** | **15.2** | **428** | **15.9** ● | **94** | **63.8** ▲ |
| RXC | 256 ● | 30 | 46.7 ▲ | 58 | 55.2 ● | 154 | 13.6 | 150 | 12.0 ● | 42 | 59.5 ▲ |
| RXH | 263 ● | 52 | 51.9 ▲ | 43 | 41.9 ▲ | 163 | 19.6 | 163 | 14.1 ● | 34 | 76.5 ● |
| RYR18 | 179 ● | 33 | 30.3 ▲ | 56 | 37.5 ▲ | 116 | 11.2 | 115 | 23.5 ▲ | 18 | 50.0 ▲ |
| **N34 Total** | **948** ● | **204** | **41.2** ▲ | **188** | **43.6** ▲ | **636** | **19.5** | **598** | **16.4** ● | **94** | **63.8** ▲ |
| RN7 | 113 ● | 26 | 57.7 ● | 25 | 68.0 ● | 92 | 26.1 | 91 | 3.3 ● | 13 | 76.9 ● |
| RPA | 177 ● | 39 | 59.0 ● | 44 | 34.1 ▲ | 121 | 21.5 | 116 | 6.0 ● | 14 | 64.3 ▲ |
| RVV[#] | 467 ● | 100 | 20.0 ▲ | 69 | 29.0 ▲ | 275 | 14.2 | 244 | 19.3 ● | 47 | 59.6 ▲ |
| RWF | 191 ● | 39 | 66.7 ● | 50 | 60.0 ● | 148 | 23.6 | 147 | 27.9 ▲ | 20 | 65.0 ● |

[#] East Kent Hospitals University Foundation Trust (RVV) has had local issues with their system uploader, resulting in inaccuracies to their reported data.

**Table 4 (continued)**
**Further Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemo-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **N35 Total** | **1,182** ● | **237** | **59.5** ● | **239** | **58.2** ● | **762** | **26.1** | **761** | **17.3** ● | **112** | **69.6** ● |
| RJD | 135 ● | 26 | 65.4 ● | 36 | 63.9 ● | 99 | 25.3 | 98 | 12.2 ● | 10 | 70.0 ● |
| RJE | 323 ● | 25 | 60.0 ● | 42 | 78.6 ● | 182 | 22.5 | 182 | 19.8 ● | 36 | 80.6 ● |
| RL4 | 228 ● | 67 | 58.2 ● | 46 | 58.7 ● | 141 | 36.2 | 141 | 13.5 ● | 19 | 68.4 ● |
| RNA | 207 ● | 50 | 62.0 ● | 45 | 66.7 ● | 149 | 21.5 | 149 | 11.4 ● | 15 | 60.0 ▲ |
| RWP31 | 44 ● | 9 | 77.8 ● | 12 | 66.7 ● | 37 | 24.3 | 37 | 29.7 ▲ | 3 | 100.0 ● |
| RXW | 245 ● | 60 | 53.3 ● | 58 | 31.0 ▲ | 154 | 26.6 | 154 | 24.0 ▲ | 29 | 58.6 ▲ |
| **N36 Total** | **2,676** ● | **556** | **49.1** ▲ | **590** | **62.2** ● | **1,664** | **20.9** | **1,594** | **28.1** ▲ | **313** | **66.5** ● |
| RE9 | 148 ● | 25 | 68.0 ● | 24 | 62.5 ● | 73 | 27.4 | 73 | 9.6 ● | 26 | 69.2 ● |
| RLN | 296 ● | 63 | 58.7 ● | 56 | 62.5 ● | 201 | 23.4 | 201 | 46.8 ▲ | 35 | 82.9 ● |
| RNL | 236 ● | 36 | 69.4 ● | 71 | 43.7 ▲ | 171 | 24.6 | 168 | 23.8 ▲ | 25 | 52.0 ▲ |
| RR7 | 208 ● | 59 | 39.0 ▲ | 39 | 53.8 ▲ | 134 | 18.7 | 116 | 31.0 ▲ | 10 | 90.0 ● |
| RTD | 308 ● | 70 | 62.9 ● | 64 | 67.2 ● | 198 | 23.7 | 174 | 19.0 ● | 38 | 81.6 ● |
| RTF | 348 ● | 55 | 45.5 ▲ | 97 | 64.9 ● | 206 | 14.6 | 199 | 24.1 ▲ | 44 | 61.4 ▲ |
| RTR | 384 ● | 84 | 46.4 ▲ | 59 | 86.4 ● | 230 | 20.0 | 230 | 13.9 ● | 56 | 53.6 ▲ |
| RVW | 307 ● | 67 | 41.8 ▲ | 68 | 66.2 ● | 190 | 19.5 | 190 | 25.3 ▲ | 33 | 66.7 ● |
| RXP | 441 ● | 97 | 36.1 ▲ | 112 | 56.3 ● | 261 | 20.3 | 243 | 45.3 ▲ | 46 | 63.0 ▲ |
| **N37 Total** | **1,552** ● | **294** | **47.6** ▲ | **355** | **56.9** ● | **1,051** | **17.8** | **1,008** | **19.4** ● | **157** | **70.1** ● |
| RC1 | 111 ● | 17 | 58.8 ● | 7 | 57.1 ● | 85 | 17.6 | 87 | 16.1 ● | 9 | 55.6 ▲ |
| RCX | 153 ● | 30 | 46.7 ▲ | 46 | 76.1 ● | 111 | 20.7 | 111 | 19.8 ● | 23 | 78.3 ● |
| RGM ◆ | 13 ◆ | 11 ◆ | 81.8 ◆ | 0 ◆ | 0.0 ◆ | 13 ◆ | 69.2 ◆ | 7 ◆ | 14.3 ◆ | 0 ◆ | 0.0 ◆ |
| RGN | 182 ● | 35 | 57.1 ● | 53 | 58.5 ● | 137 | 19.7 | 133 | 39.1 ▲ | 17 | 58.8 ▲ |
| RGP | 163 ● | 33 | 27.3 ▲ | 53 | 43.4 ▲ | 96 | 11.5 | 88 | 13.6 ● | 11 | 81.8 ● |
| RGQ | 162 ● | 27 | 51.9 ▲ | 31 | 51.6 ▲ | 113 | 14.2 | 113 | 15.9 ● | 10 | 80.0 ● |
| RGR | 147 ● | 18 | 50.0 ▲ | 30 | 60.0 ● | 97 | 13.4 | 97 | 11.3 ● | 17 | 76.5 ● |
| RGT | 233 ● | 41 | 51.2 ▲ | 74 | 55.4 ● | 185 | 13.5 | 171 | 15.2 ● | 26 | 65.4 ● |
| RM1 | 322 ● | 61 | 39.3 ▲ | 57 | 56.1 ● | 173 | 21.4 | 170 | 17.1 ● | 33 | 72.7 ● |
| RQQ | 66 ● | 21 | 47.6 ▲ | 4 | 50.0 ▲ | 41 | 26.8 | 31 | 35.5 ▲ | 11 | 54.5 ▲ |
| **N38 Total** | **827** ● | **157** | **57.3** ● | **219** | **58.4** ● | **576** | **18.9** | **563** | **13.9** ● | **115** | **67.8** ● |
| RAJ | 219 ● | 44 | 63.6 ● | 46 | 58.7 ● | 146 | 25.3 | 136 | 11.0 ● | 28 | 71.4 ● |
| RDD | 203 ● | 38 | 47.4 ▲ | 50 | 68.0 ● | 143 | 14.7 | 143 | 9.1 ● | 36 | 69.4 ● |
| RDE | 238 ● | 38 | 68.4 ● | 80 | 61.3 ● | 158 | 18.4 | 158 | 13.3 ● | 33 | 72.7 ● |
| RQ8 | 167 ● | 37 | 48.6 ▲ | 43 | 41.9 ▲ | 129 | 17.1 | 126 | 23.0 ▲ | 18 | 50.0 ▲ |
| **N39 Total** | **2,253** ● | **439** | **59.0** ● | **517** | **51.8** ▲ | **1,416** | **27.0** | **1,297** | **15.6** ● | **260** | **69.6** ● |
| RJF | 137 ● | 28 | 71.4 ● | 38 | 65.8 ● | 91 | 28.6 | 76 | 14.5 ● | 16 | 68.8 ● |
| RK5 | 207 ● | 42 | 52.4 ● | 51 | 52.9 ▲ | 138 | 21.7 | 133 | 18.8 ● | 31 | 83.9 ● |
| RNQ | 201 ● | 43 | 55.8 ● | 39 | 61.5 ● | 108 | 28.7 | 105 | 38.1 ▲ | 26 | 69.2 ● |
| RNS | 177 ● | 33 | 45.5 ▲ | 42 | 47.6 ▲ | 91 | 27.5 | 87 | 18.4 ● | 20 | 60.0 ▲ |
| RTG | 289 ● | 60 | 65.0 ● | 82 | 69.5 ● | 203 | 28.1 | 178 | 9.6 ● | 31 | 64.5 ▲ |
| RWD | 334 ● | 48 | 54.2 ● | 61 | 57.4 ● | 200 | 27.5 | 187 | 13.9 ● | 36 | 75.0 ● |
| RWE | 474 ● | 97 | 56.7 ● | 105 | 41.0 ▲ | 270 | 28.9 | 221 | 13.6 ● | 41 | 63.4 ▲ |
| RX1 | 430 ● | 88 | 65.9 ● | 99 | 37.4 ▲ | 314 | 25.8 | 309 | 12.0 ● | 57 | 68.4 ● |
| **England Total** | **31,003** ● | **6,400** | **51.3** ▲ | **6,735** | **57.0** ● | **19,675** | **22.3** | **18,783** | **16.2** ● | **3,428** | **67.9** ● |
| **NWW Total** | **476** ● | **103** | **47.6** ▲ | **115** | **63.5** ● | **293** | **18.4** | **291** | **5.5** ● | **63** | **63.5** ▲ |
| 7A1A1 | 193 ● | 39 | 48.7 ▲ | 39 | 53.8 ▲ | 126 | 18.3 | 126 | 7.1 ● | 27 | 74.1 ● |
| 7A1A4 | 155 ● | 47 | 48.9 ▲ | 34 | 76.5 ● | 84 | 28.6 | 83 | 4.8 ● | 23 | 60.9 ▲ |
| 7A1AU | 128 ● | 17 | 41.2 ▲ | 42 | 61.9 ● | 83 | 8.4 | 82 | 3.7 ● | 13 | 46.2 ▲ |

**Table 4 (continued)**
**Further Process and Clinical Outcomes for England and Wales 2012**

| Code | Actual number | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemo-therapy | Number of histo-logically confirmed NSCLC | % histo-logically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemo-therapy |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SWCN Total** | **1,556** ● | **346** | **35.5** ▲ | **353** | **58.9** ● | **913** | **15.8** | **903** | **12.2** ● | **195** | **63.1** ▲ |
| 7A2AG | 29 ▲ | 6 | 16.7 ▲ | 6 | 83.3 ● | 18 | 5.6 | 18 | 5.6 ● | 1 | 100.0 ● |
| 7A2AJ | 39 ● | 7 | 28.6 ▲ | 11 | 54.5 ▲ | 27 | 7.4 | 27 | 18.5 ● | 5 | 60.0 ▲ |
| 7A2AL | 117 ● | 27 | 55.6 ● | 36 | 77.8 ● | 79 | 19.0 | 80 | 2.5 ● | 19 | 89.5 ● |
| 7A2BL | 90 ● | 26 | 50.0 ▲ | 28 | 46.4 ▲ | 62 | 22.6 | 60 | 3.3 ● | 3 | 66.7 ● |
| 7A3B7 | 99 ● | 21 | 33.3 ▲ | 23 | 65.2 ● | 49 | 14.3 | 48 | 10.4 ● | 14 | 64.3 ▲ |
| 7A3C4 | 90 ● | 17 | 35.3 ▲ | 24 | 54.2 ▲ | 54 | 13.0 | 53 | 7.5 ● | 12 | 50.0 ▲ |
| 7A3C7 | 89 ■ | 12 | 25.0 ▲ | 28 | 60.7 ● | 58 | 10.3 | 58 | 12.1 ● | 10 | 70.0 ● |
| 7A3CJ | 83 ● | 16 | 31.3 ▲ | 31 | 51.6 ▲ | 52 | 9.6 | 52 | 17.3 ● | 9 | 77.8 ● |
| 7A4C1 | 312 ● | 79 | 31.6 ▲ | 41 | 63.4 ● | 177 | 16.4 | 176 | 18.8 ● | 32 | 68.8 ● |
| 7A5B1 | 136 ● | 28 | 53.6 ● | 40 | 40.0 ▲ | 91 | 18.7 | 90 | 15.6 ● | 16 | 31.3 ▲ |
| 7A5B3 | 114 ● | 29 | 31.0 ▲ | 30 | 70.0 ● | 71 | 14.1 | 69 | 10.1 ● | 15 | 60.0 ▲ |
| 7A6AM | 123 ● | 27 | 18.5 ▲ | 11 | 54.5 ▲ | 54 | 18.5 | 53 | 9.4 ● | 22 | 63.6 ▲ |
| 7A6AR | 235 ● | 51 | 33.3 ▲ | 44 | 59.1 ● | 121 | 17.4 | 119 | 13.4 ● | 37 | 56.8 ▲ |
| **Wales Total** | **2,032** ● | **449** | **38.3** ▲ | **468** | **60.0** ● | **1,206** | **16.4** | **1,194** | **10.6** ● | **258** | **63.2** ▲ |
| **England and Wales Total** | **33,035** ● | **6,849** | **50.4** ▲ | **7,203** | **57.2** ● | **20,881** | **21.9** | **19,977** | **15.8** ● | **3,686** | **67.5** ● |
| **Last year's results (including mesothelioma)** | | | | | | | | | | | |
| **2011 Total** | **33,374** ● | **5,821** | **50.3** ▲ | **6,682** | **55.3** ● | **20,035** | **19.8** | **19,110** | **19.2** ● | **3,748** | **67.9** ● |
| Difference | -339 | 1,028 | 0.1 | 521 | 1.9 | 846 | 2.1 | 867 | -3.4 | -62 | -0.4 |
| **Last year's results (excluding mesothelioma)** | | | | | | | | | | | |
| **2011 Total** | **31,557** ● | **5,821** | **50.3** ▲ | **6,682** | **55.3** ● | **20,035** | **19.8** | **19,108** | **19.2** ● | **3,748** | **67.9** ● |
| Difference | 1,478 | 1,028 | 0.1 | 521 | 1.9 | 846 | 2.1 | 869 | -3.4 | -62 | -0.4 |
| Counts aggregated by place first seen Trust. | | | | | | | | | | | |
| **Range Network** | | | | | | | | | | | |
| Min | | | 35.4 | | 43.6 | | 15.1 | | 5.5 | | 49.3 |
| LQ | | | 44.8 | | 51.0 | | 17.9 | | 12.3 | | 63.7 |
| Median | | | 48.4 | | 58.3 | | 19.7 | | 14.2 | | 67.0 |
| UQ | | | 58.9 | | 62.9 | | 23.8 | | 17.5 | | 69.8 |
| Max | | | 62.1 | | 70.9 | | 30.8 | | 29.2 | | 80.4 |
| **Range Trust** | | | | | | | | | | | |
| Min | | | 0.0 | | 20.0 | | 0.0 | | 0.0 | | 0.0 |
| LQ | | | 41.2 | | 50.0 | | 16.5 | | 9.1 | | 60.0 |
| Median | | | 50.0 | | 59.1 | | 20.5 | | 13.6 | | 66.7 |
| UQ | | | 60.0 | | 66.7 | | 25.3 | | 19.3 | | 76.5 |
| Max | | | 85.7 | | 100.0 | | 39.0 | | 54.5 | | 100.0 |

| Indicator | Definition | ▲ | ■ | ● |
|---|---|---|---|---|
| Actual number | Number of cases (excluding mesothelioma) with date first seen in year specified | <50% | 50-75% | ≥75% |
| NSCLC Stage IA, IB, IIA or IIB | Number of NSCLC cases with TNM Stage IA, IB, IIA or IIB | | | |
| % of NSCLC Stage IA, IB, IIA or IIB having surgery | Complete when surgery procedure date is present (excluding where primary procedure (OPCS) = E59.5) (denominator = NSCLC cases with TNM Stage IA, IB, IIA or IIB) | <52% | | ≥52% |
| Number of PS 0-1 NSCLC Stage IA, IB, IIA or IIB | Number of NSCLC cases with Performance Status 0 or 1 and TNM Stage IA, IB, IIA or IIB | | | |
| % PS 0-1 Stage IA, IB, IIA or IIB NSCLC having FEV1 absolute and % predicted | Complete when both FEV1 % and FEV1 absolute amount are present (denominator = NSCLC cases with Performance Status 0 or 1 and TNM Stage IA, IB, IIA or IIB) | <85% | | ≥85% |
| Number of PS 0-1 NSCLC Stage IIIB or IV | Number of NSCLC cases with Performance Status 0 or 1 and TNM Stage IIIB or IV | | | |
| % PS 0-1 Stage IIIB or IV NSCLC having chemotherapy | Complete when chemotherapy start date is present (denominator = NSCLC cases with Performance Status 0 or 1 and TNM Stage IIIB or IV) | <55% | | ≥55% |
| Number of histologically confirmed NSCLC | Number of histologically confirmed NSCLC cases | | | |
| % histologically confirmed NSCLC having surgery | Complete when surgery procedure date is present (excluding where primary procedure (OPCS) = E59.5) (denominator = histologically confirmed NSCLC cases) | | | |
| Number of pre-treatment NSCLC | Number of pre-treatment NSCLC cases | | | |
| % pre-treatment NSCLC histology NOS | Percentage of pre-treatment NSCLC cases with histology NOS (M8046/3) (denominator = pre-treatment NSCLC cases) | <20% | | ≥20% |
| Number of patients small cell lung cancer | Number of SCLC cases | | | |
| % small cell receiving chemotherapy | Complete when chemotherapy start date is present (denominator = SCLC cases) | <65% | | ≥65% |

◆ – Tertiary Trust standards do not apply

**Table 5**
**Further Process and Clinical Outcomes for Guernsey 2012**

| Code | Actual number | Number of NSCLC | % of NSCLC having surgery | NSCLC Stage IA, IB, IIA or IIB | % of NSCLC Stage IA, IB, IIA or IIB having surgery | PS 0-1 NSCLC Stage IA, IB, IIA or IIB | % PS 0-1 NSCLC Stage IA, IB, IIA or IIB having FEV1 absolute and % predicted | Number of PS 0-1 NSCLC Stage IIIB or IV | % PS 0-1 Stage IIIB or IV NSCLC having chemotherapy | Number of histologically confirmed NSCLC | % histologically confirmed NSCLC having surgery | Number of pre-treatment NSCLC | % pre-treatment NSCLC histology NOS | Number of patients small cell lung cancer | % small cell receiving chemotherapy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2012 Total** | **40** ● | **35** | **5.7** ▲ | **3** | **66.7** ● | **3** | **66.7** ▲ | **9** | **77.8** ● | **26** | **7.7** | **23** | **4.3** ● | **5** | **60.0** ▲ |
| **2011 Total** | **41** ● | **33** | **9.1** ▲ | **6** | **50.0** ▲ | **5** | **100.0** ● | **9** | **55.6** ● | **23** | **13.0** | **23** | **13.0** ● | **7** | **100.0** ● |
| Difference | -1 | 2 | -3.4 | -3 | 16.7 | -2 | -33.3 | 0 | 22.2 | 1 | -5.3 | 0 | -8.7 | -2 | -40.0 |

# Appendix 1:
# Trust and Health Board Identification for England and Wales

| N01 | Lancashire and South Cumbria |
|---|---|
| RTX | University Hospitals of Morecambe Bay NHS Foundation Trust |
| RXL | Blackpool Teaching Hospitals NHS Foundation Trust |
| RXN | Lancashire Teaching Hospitals NHS Foundation Trust |
| RXR | East Lancashire Hospitals NHS Trust |

| N02 | Greater Manchester and Cheshire |
|---|---|
| RBT | Mid Cheshire Hospitals NHS Foundation Trust |
| RBV | The Christie NHS Foundation Trust |
| RJN | East Cheshire NHS Trust |
| RM2 | University Hospital of South Manchester NHS Foundation Trust |
| RM3 | Salford Royal NHS Foundation Trust |
| RMC | Bolton NHS Foundation Trust |
| RMP | Tameside Hospital NHS Foundation Trust |
| RRF | Wrightington, Wigan and Leigh NHS Foundation Trust |
| RW3 | Central Manchester University Hospitals NHS Foundation Trust |
| RW6 | Pennine Acute Hospitals NHS Trust |
| RWJ | Stockport NHS Foundation Trust |

| N03 | Merseyside and Cheshire |
|---|---|
| LLCU* | Liverpool Lung Cancer Unit |
| RBL | Wirral University Teaching Hospital NHS Foundation Trust |
| RBN | St Helens and Knowsley Hospitals NHS Trust |
| REM | Aintree University Hospitals NHS Foundation Trust |
| REN | The Clatterbridge Cancer Centre NHS Foundation Trust |
| RJR | Countess of Chester Hospital NHS Foundation Trust |
| RVY | Southport and Ormskirk Hospital NHS Trust |
| RWW | Warrington and Halton Hospitals NHS Foundation Trust |

| N06 | Yorkshire Cancer Network |
|---|---|
| RAE | Bradford Teaching Hospitals NHS Foundation Trust |
| RCB | York Teaching Hospital NHS Foundation Trust |
| RCD | Harrogate and District NHS Foundation Trust |
| RCF | Airedale NHS Foundation Trust |
| RR8 | Leeds Teaching Hospitals NHS Trust |
| RWY | Calderdale and Huddersfield NHS Foundation Trust |
| RXF | Mid Yorkshire Hospitals NHS Trust |

| N07 | Humber and Yorkshire Coast Cancer Network |
|---|---|
| RCC | Scarborough and North East Yorkshire Health Care NHS Trust |
| RJL | Northern Lincolnshire and Goole Hospitals NHS Foundation Trust |
| RV9 | Humber NHS Foundation Trust |
| RWA | Hull and East Yorkshire Hospitals NHS Trust |

| N08 | North Trent |
|---|---|
| RFF | Barnsley Hospital NHS Foundation Trust |
| RFR | The Rotherham NHS Foundation Trust |
| RFS | Chesterfield Royal Hospital NHS Foundation Trust |
| RHQ | Sheffield Teaching Hospitals NHS Foundation Trust |
| RP5 | Doncaster and Bassetlaw Hospitals NHS Foundation Trust |

| N11 | Pan Birmingham |
|---|---|
| RBK | Walsall Healthcare NHS Trust |
| RR1 | Heart of England NHS Foundation Trust |
| RRK | University Hospitals Birmingham NHS Foundation Trust |
| RXK | Sandwell and West Birmingham Hospitals NHS Trust |

| N12 | Arden |
|---|---|
| RJC | South Warwickshire NHS Foundation Trust |
| RKB | University Hospitals Coventry and Warwickshire NHS Trust |
| RLT | George Eliot Hospital NHS Trust |
| RWP00 | Worcestershire Acute Hospitals NHS Trust |

| N20 | Mount Vernon Cancer Network |
|---|---|
| RC9 | Luton and Dunstable University Hospital NHS Foundation Trust |
| RWG | West Hertfordshire Hospitals NHS Trust |
| RWH | East and North Hertfordshire NHS Trust |

| N21 | West London Cancer Network |
|---|---|
| RAS | The Hillingdon Hospitals NHS Foundation Trust |
| RC3 | Ealing Hospital NHS Trust |
| RFW | West Middlesex University Hospital NHS Trust |
| RQM | Chelsea and Westminster Hospital NHS Foundation Trust |
| RT3 | Royal Brompton and Harefield NHS Foundation Trust |
| RV8 | North West London Hospitals NHS Trust |
| RYJ | Imperial College Healthcare NHS Trust |

| N22 | North London |
|---|---|
| RAL | Royal Free London NHS Foundation Trust |
| RAP | North Middlesex University Hospital NHS Trust |
| RKE | The Whittington Hospital NHS Trust |
| RQW | The Princess Alexandra Hospital NHS Trust |
| RRV | University College London Hospitals NHS Foundation Trust |
| RVL | Barnet and Chase Farm Hospitals NHS Trust |

| N23 | North East London Cancer Network |
|---|---|
| R1HKH | Whipps Cross University Hospital (Barts Health NHS Trust) |
| R1HM0 | Barts and the London NHS Trust |
| R1HNH | Newham General Hospital NHS Trust (Barts Health NHS Trust) |
| RF4 | Barking, Havering and Redbridge University Hospitals NHS Trust |
| RQX | Homerton University Hospital NHS Foundation Trust |

| N24 | South East London |
|---|---|
| RJ1 | Guy's and St Thomas' NHS Foundation Trust |
| RJ2 | Lewisham and Greenwich NHS Trust |
| RJZ | King's College Hospital NHS Foundation Trust |
| RYQ | South London Healthcare NHS Trust |

| N25 | South West London |
|---|---|
| RAX | Kingston Hospital NHS Foundation Trust |
| RJ6 | Croydon Health Services NHS Trust |
| RJ7 | St George's Healthcare NHS Trust |
| RPY | The Royal Marsden NHS Foundation Trust |
| RVR | Epsom and St Helier University Hospitals NHS Trust |

| N26 | Peninsula |
|---|---|
| RA9 | South Devon Healthcare NHS Foundation Trust |
| RBZ | Northern Devon Healthcare NHS Trust |
| REF | Royal Cornwall Hospitals NHS Trust |
| RH8 | Royal Devon and Exeter NHS Foundation Trust |
| RK9 | Plymouth Hospitals NHS Trust |

| N27 | Dorset Cancer Network |
|---|---|
| RBD | Dorset County Hospital NHS Foundation Trust |
| RD3 | Poole Hospital NHS Foundation Trust |
| RDZ | The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust |

| N28 | Avon Somerset and Wiltshire |
|---|---|
| RA3 | Weston Area Health NHS Trust |
| RA4 | Yeovil District Hospital NHS Foundation Trust |
| RA7 | University Hospitals Bristol NHS Foundation Trust |
| RBA | Taunton and Somerset NHS Foundation Trust |
| RD1 | Royal United Hospital Bath NHS Trust |
| RVJ | North Bristol NHS Trust |

| N29 | 3 Counties Cancer Network |
|---|---|
| RLQ | Wye Valley NHS Trust |
| RTE | Gloucestershire Hospitals NHS Foundation Trust |
| RWP50 | Worcestershire Acute Hospitals NHS Trust |

| N30 | Thames Valley |
|---|---|
| RD7 | Heatherwood and Wexham Park Hospitals NHS Foundation Trust |
| RD8 | Milton Keynes Hospital NHS Foundation Trust |
| RHW | Royal Berkshire NHS Foundation Trust |
| RN3 | Great Western Hospitals NHS Foundation Trust |
| RTH | Oxford University Hospitals NHS Trust |
| RXQ | Buckinghamshire Healthcare NHS Trust |

| N31 | Central South Coast |
|---|---|
| R1F | Isle of Wight NHS Trust |
| RHM | University Hospital Southampton NHS Foundation Trust |
| RHU | Portsmouth Hospitals NHS Trust |
| RN506 | Basingstoke and North Hampshire Hospital (Hampshire Hospitals NHS Foundation Trust) |
| RN541 | Royal Hampshire County Hospital (Hampshire Hospitals NHS Foundation Trust) |
| RNZ | Salisbury NHS Foundation Trust |
| RYR16 | St Richard's Hospital (Western Sussex Hospitals NHS Trust) |

| N32 | Surrey, West Sussex and Hampshire |
|---|---|
| RA2 | Royal Surrey County Hospital NHS Foundation Trust |
| RDU | Frimley Park Hospital NHS Foundation Trust |
| RTK | Ashford and St Peter's Hospitals NHS Foundation Trust |
| RTP | Surrey and Sussex Healthcare NHS Trust |

| N33 | Sussex |
|---|---|
| RXC | East Sussex Healthcare NHS Trust |
| RXH | Brighton and Sussex University Hospitals NHS Trust |
| RYR18 | Worthington Hospital (Western Sussex Hospitals NHS Foundation Trust) |

| N34 | Kent and Medway |
|---|---|
| RN7 | Dartford and Gravesham NHS Trust |
| RPA | Medway NHS Foundation Trust |
| RVV | East Kent Hospitals University NHS Foundation Trust |
| RWF | Maidstone and Tunbridge Wells NHS Trust |

| N35 | Greater Midlands |
|---|---|
| RJD | Mid Staffordshire NHS Foundation Trust |
| RJE | University Hospital of North Staffordshire NHS Trust |
| RL4 | The Royal Wolverhampton Hospitals NHS Trust |
| RNA | The Dudley Group NHS Foundation Trust |
| RWP31 | Kidderminster Hospital (Worcestershire Acute Hospitals NHS Trust) |
| RXW | Shrewsbury and Telford Hospital NHS Trust |

| N36 | North of England Cancer Network |
|---|---|
| RE9 | South Tyneside NHS Foundation Trust |
| RLN | City Hospitals Sunderland NHS Foundation Trust |
| RNL | North Cumbria University Hospitals NHS Trust |
| RR7 | Gateshead Health NHS Foundation Trust |
| RTD | The Newcastle Upon Tyne Hospitals NHS Foundation Trust |
| RTF | Northumbria Healthcare NHS Foundation Trust |
| RTR | South Tees Hospitals NHS Foundation Trust |
| RVW | North Tees and Hartlepool NHS Foundation Trust |
| RXP | County Durham and Darlington NHS Foundation Trust |

| N37 | Anglia Cancer Network |
|---|---|
| RC1 | Bedford Hospital NHS Trust |
| RCX | The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust |
| RGM | Papworth Hospital NHS Foundation Trust |
| RGN | Peterborough and Stamford Hospitals NHS Foundation Trust |
| RGP | James Paget University Hospitals NHS Foundation Trust |
| RGQ | Ipswich Hospital NHS Trust |
| RGR | West Suffolk NHS Foundation Trust |
| RGT | Cambridge University Hospitals NHS Foundation Trust |
| RM1 | Norfolk and Norwich University Hospitals NHS Foundation Trust |
| RQQ | Hinchingbrooke Health Care NHS Trust |

| N38 | Essex Cancer Network |
|---|---|
| RAJ | Southend University Hospital NHS Foundation Trust |
| RDD | Basildon and Thurrock University Hospitals NHS Foundation Trust |
| RDE | Colchester Hospital University NHS Foundation Trust |
| RQ8 | Mid Essex Hospital Services NHS Trust |

| N39 | East Midland Cancer Network |
|---|---|
| RJF | Burton Hospitals NHS Foundation Trust |
| RK5 | Sherwood Forest Hospitals NHS Foundation Trust |
| RNQ | Kettering General Hospital NHS Foundation Trust |
| RNS | Northampton General Hospital NHS Trust |
| RTG | Derby Hospitals NHS Foundation Trust |
| RWD | United Lincolnshire Hospitals NHS Trust |
| RWE | University Hospitals of Leicester NHS Trust |
| RX1 | Nottingham University Hospitals NHS Trust |

| | Welsh Cancer Network |
|---|---|
| 7A1A1 | Ysbyty Glan Clwyd |
| 7A1A4 | Ysbyty Maelor Wrexham |
| 7A1AU | Ysbyty Gwynedd |
| 7A2AG | West Wales General Hospital |
| 7A2AJ | Bronglais General Hospital |
| 7A2AL | Prince Philip Hospital Site |
| 7A2BL | Withybush General Hospital |
| 7A3B7 | Princess Of Wales Hospital |
| 7A3C4 | Singleton Hospital |
| 7A3C7 | Morriston Hospital |
| 7A3CJ | Neath Port Talbot Hospital |
| 7A4C1 | University Hospital Llandough |
| 7A5B1 | The Royal Glamorgan Hospital |
| 7A5B3 | Prince Charles Hospital |
| 7A6AM | Nevill Hall Hospital |
| 7A6AR | Royal Gwent Hospital |

* LLCU is a partnership between Liverpool Heart and Chest NHS Foundation Trust and Liverpool and Broadgreen University Hospital NHS Trust for management of lung cancer.

# Appendix 2: Local Action Plan

| Recommendation | Achieved Y/N/P/NK | Planned Action | Suggested Actions | Suggested Responsibility | Date Plan Actioned | Date Issue Resolves |
|---|---|---|---|---|---|---|
| **Data Completeness and Quality** | | | | | | |
| The organisation participates in this national audit. | | | Contact Clinical Audit Support Unit (nlca@hscic.gov.uk) Visit http://www.ic.nhs.uk/lung for information. Obtain, read and disseminate the National Lung Cancer Audit Annual Report. | Cancer Manager, Governance Lead | | |
| Data on all patients diagnosed with either lung cancer or mesothelioma are submitted to the audit. | | | Use MDT meetings to capture all cases discussed, Try to record cases in real time or near real time. Liaise with Pathology Departments to correlate cases. Work with IT Department to set up CSV file upload facility if information is collected on a third party system or identify resources to input data directly. | MDT Chair | | |
| All relevant data fields are completed for each patient. | | | Use proforma for data collection at MDT. Identify key person to quality assure data prior to submission. Ensure data inputters understand clinical implications of data. Map and allocate responsibility along patient pathway. Agree protocols and submission routes for patients that are treated across different organisations. | Data Co-ordinator, Cancer Manager | | |
| Key data fields including Stage and Performance Status should be completed in at least 85 per cent and in at least 95 per cent with respect to the MDT field. | | | Refer to the documentation on the National Lung Cancer Audit website and ensure that key fields are completed for all relevant cases. MDT Chair assists Co-ordinator by ensuring that Stage, Performance Status and other key fields are discussed and recorded for each patient. | MDT Chair, Data Co-ordinator, Manager | | |
| FEV1 absolute and FEV1% predicted for Stage I and II NSCLC patients with PS 0 or 1 should be recorded in at least 85 per cent. | | | Record data in real time at MDT where possible; foster links with Physiology Departments to obtain data on relevant patients; quality assure data prior to submission. | MDT Chair, Data Co-ordinator, Cancer Manager | | |
| **Process of Care** | | | | | | |
| Over 95 per cent of patients submitted to the audit are discussed at an MDT. | | | Liaise with cancer waiting times team to identify lung cancer referrals. Liaise with Radiology Department to identify all imaging suspicious of lung cancer or mesothelioma. Liaise with Pathology Department to identify cases. | MDT Chair, Lung Cancer Clinical Lead | | |
| The Histological Confirmation Rate should be at least 75 per cent. To be reviewed in light of case-mix adjusted odds ratio. | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier.<br><br>Ensure all histological diagnoses are submitted to the audit, including those confirmed only by resection. Liaise with Pathology Department to identify cases.<br><br>Review clinical diagnoses and diagnostics protocols if HCR is below optimum. | MDT Chair, Lung Cancer Clinical Lead | | |
| The proportion of patients receiving CT scan prior to bronchoscopy should exceed 95 per cent. | | | Ensure that all CT / bronchoscopy data is submitted to the audit. Review patient pathway and individual clinician practices. | MDT Chair, Lung Cancer Clinical Lead, Radiologists | | |
| Over 80 per cent of patients are seen by a Lung Cancer Nurse Specialist. | | | Review the Specialist Nurse service, ensuring all nursing posts are staffed and that clear referral pathways exist. | MDT Chair, Lung Cancer Clinical Lead, Specialist Nurse | | |
| Over 80 per cent of patients have a Lung Cancer Nurse Specialist present at the time of diagnosis. | | | Review the Specialist Nurse service, allocate extra nursing support alongside lung cancer clinics | MDT Chair, Lung Cancer Clinical Lead, Specialist Nurse | | |
| Co-morbidity that prevents a patient receiving treatment of choice should be recorded for all relevant cases. | | | Ensure that all relevant co-morbidity data is discussed at MDT, and ensure that cases where co-morbidity prevents treatment of choice are submitted to the audit. It is important that the collected data adheres to the definitions in the LUCADA data manual. | MDT chair, Lung Cancer Clinical Lead, Specialist Nurse | | |
| PET scan dates should be recorded for all relevant cases. | | | Ensure that all PET data is captured at MDT submitted to the audit. | MDT Chair, Lung Cancer Clinical Lead, Specialist Nurse | | |
| NSCLC NOS rate of more than 20 per cent should be reviewed to ensure that best practice histological diagnostic techniques including immunohistochemistry are being followed, in order that patients receive appropriate chemotherapy regimens. | | | Ensure that Pathologist is an integral part of the lung MDT and understands the importance of tumour subtyping. Ensure that a locally approved panel of immunohistochemical markers are being used for subtyping and that locally approved appropriate mutation testing is being applied. | MDT Chair, Pathologist, Lung Cancer Clinical Lead, Specialist Nurse, MDT Co-ordinator | | |

| Recommendation | Achieved Y/N/P/NK | Planned Action | Suggested Actions | Suggested Responsibility | Date Plan Actioned | Date Issue Resolves |
|---|---|---|---|---|---|---|
| **Clinical Outcomes** | | | | | | |
| Surgical resection rates below 14 per cent for all patients excluding small cell lung cancer or mesothelioma must be reviewed<br><br>To be reviewed in light of case-mix adjusted odds ratio. | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier. Ensure that all surgical resections are submitted to the audit. If data is complete then review treatment policies for early stage lung cancer in patients with good Performance Status.<br><br>Ensure that the Thoracic Surgeon attends MDT meetings. Consider offering a second opinion in borderline cases. | MDT Chair, Lung Cancer Clinical Lead, Thoracic Surgeons | | |
| Surgical resection rates for patients for all patients excluding small cell lung cancer or mesothelioma with Stage I or II disease below 52 per cent must be reviewed. | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier. Ensure that all surgical resections are submitted to the audit. If data is complete then review treatment policies for early stage lung cancer in patients with good Performance Status.<br><br>Ensure that the Thoracic Surgeon attends MDT meetings. Consider offering a second opinion in borderline cases. | MDT Chair, Lung Cancer Clinical Lead, Thoracic Surgeons | | |
| Active anti-cancer treatment rates below 60 per cent should be reviewed.<br><br>To be reviewed in light of case-mix adjusted odds ratio. | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier.<br><br>Ensure that all treatments are submitted to the audit. Review treatment policies for small cell lung cancer patients. Review pathway from diagnosis to treatment to ensure it is as expeditious as possible. | MDT Chair, Lung Cancer Clinical Lead, MDT members | | |
| Chemotherapy rates for small cell lung cancer below 65 per cent should be reviewed.<br><br>To be reviewed in light of case mix adjusted odds ratio | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier.<br><br>Ensure that all treatments are submitted to the audit. Review treatment policies for small cell lung cancer patients. | MDT Chair, Lung Cancer Clinical Lead, MDT members | | |
| Chemotherapy rates for patients of PS 0-1 with advanced Stage NSCLC IIIB/IV below 55 per cent should be reviewed.<br><br>To be reviewed in light of case-mix adjusted odds ratio. | | | This result should be interpreted in conjunction with the case-mix adjusted odds ratio, which might better reflect whether the organisation is an outlier.<br><br>Ensure that all treatments are submitted to the audit. Review treatment policies for non-small cell lung cancer patients with advanced stage. | MDT Chair, Lung Cancer Clinical Lead, MDT members | | |
| Low median survival, as demonstrated by a case-mix adjusted hazard ratio significantly below the baseline, should be investigated. | | | Ensure that all relevant data has been submitted to the audit, Identify areas where audit standards have not been met or where CMA demonstrates the Trust to be an outlier and review. | MDT Chair, Lung Cancer Clinical Lead, MDT members | | |

# Appendix 3: Glossary

**Adjuvant treatment** – An additional therapy (e.g. chemotherapy or radiotherapy) provided to improve the effectiveness of the primary treatment (e.g. surgery). This may aim to reduce the chance of local recurrence of the cancer or to improve the patient's overall chance of survival.

**Adenocarcinoma** – a type of cancer arising from glandular tissue.

**Anti-cancer treatment (active treatment)** – a term used to define treatments for lung cancer that have an effect on the tumour itself, not just on symptoms. In lung cancer patients these are most often surgery, chemotherapy, radiotherapy or a combination.

**Benchmarking** – a method of comparing processes and outcomes against standards.

**Biopsy** – removal and examination of tissue, usually microscopic, to establish a precise (histological) diagnosis.

**Bronchoscopy** – a procedure for examining the airways by inserting an instrument (bronchoscope) into the trachea and lungs, normally via the nose. Enables a bronchial biopsy to be taken.

**Bronchial biopsy** – removal of a small piece of lung tissue during a bronchoscopy in order to make a histological diagnosis.

**Cancer Network**– a system within the NHS to organise the integrated and care of cancer patients across a geographic region.

**Cancer Registry/ies** – organisations who systematically collect high level data about all cases of cancer in the UK. Cancer registries are unique in being able to provide historical trend and population-based data to monitor changes in cancer incidence or survival over long periods of time.

**Case ascertainment** – the number of cases of lung cancer actually recorded by an organisation as a proportion of the number expected. Gives assurance that organisations are submitting data on all relevant cases.

**Case-mix** – refers to the different characteristics of patients seen in different hospitals (for example age, sex, disease stage, social deprivation and general health). Knowledge of differing case-mix enables a more accurate method of comparing quality of care (case-mix adjustment).

**Case-mix adjustment** – a statistical method of comparing quality of care between organisations that takes into account important and measurable patient characteristics.

**Chemotherapy** – medicines used in the treatment of cancer that can be given by mouth or by injection.

**Common denominator** – (in a non-mathematical context) factors that link objects (e.g. hospitals) together.

**Co-morbidity** – medical conditions or disease processes that are additional to the disease under investigation (in this case lung cancer). In the NLCA this is recorded when a co-morbidity restricts the type of treatment that can be given for lung cancer.

**CT scan** – the abbreviated term for computed or computerised axial tomography. These are tests that produces detailed images of the body using X-rays images that are enhanced by a computer.

**Cytological** – refers to a pathological examination of cells outside the architecture of the actual tissue or organ they are taken from (as opposed to histological).

**Data completeness** – a measure of the standard of data submitted to the audit, both in terms of the numbers of cases submitted as well as the data on each individual case.

**Diagnosis** – confirming the presence of the disease.

**Health Board** – an organisation providing healthcare services in Scotland and Wales. A Health Board may manage one or several hospitals within a region.

**Histological** – refers to a pathological examination of cells within the architecture of a tissue or organ rather than just the cells themselves (as opposed to cytological).

**Hospital Trust** – an organisation providing secondary healthcare services in England. A Hospital Trust may be made up of one or several hospitals within a region.

**Immunohistochemistry** – is a special test used by pathologists to detect specific molecules on cells. It is used to help diagnose diseases, such as cancer, and to detect the presence of microorganisms.

**Improving Lung Cancer Outcomes Project (ILCOP)** – a project sponsored by the Health Foundation and managed by the Royal College of Physicians to look at ways to improve care offered to people diagnosed with lung cancer.

**Interquartile range** – the range of a particular variable excluding the highest quarter and lowest quarter of the values recorded. Can be useful to give a sense of the spread of a set of data without being affected by very high or very low results.

**Lead Clinician** – a healthcare professional in a hospital taking overall responsibility for the services provided for a specific disease area.

**Lobectomy** – an operation to remove a whole section (lobe) of lung tissue see also wedge resection. There are three lobes in the right lung and two lobes in the left lung.

**LUCADA** – National Lung Cancer Audit Dataset. (LUng CAncer DAta)

Lung Cancer Nurse Specialist – a nurse specialising in care of people diagnosed with lung cancer or mesothelioma.

Lymph nodes – small, oval-shaped organs of the immune system, whose main job is to fight infection. Distributed widely throughout the body (including the neck, armpit, abdomen and thorax) they are a common place for cancers to spread.

MDT – Multi-Disciplinary Team, a group of healthcare professionals working in a co-ordinated manner for patient care.

Mediastinum/Mediastinal – refers to an area within the center of the thorax (chest) between the two lungs, where the heart, blood vessels and lymph nodes are found.

Mediastinotomy/oscopy – an operation that enables visualization and biopsy of the mediastinal lymph nodes. These procedures are often used to determine whether a cancer has spread to the lymph nodes, which affects the stage of the disease.

Mesothelioma – cancer of the lining of the lung caused by exposure to asbestos.

Metastasis – cancer that has spread from the place where it was formed to grow in another part of the body.

Network – see 'Cancer Network'.

NLCA – National Lung Cancer Audit.

Nodule (lung nodule) – a small abnormality on the lung often found on chest X-rays or CT scans Most lung nodules are non-cancerous (benign). However, some lung nodules may be cancerous - either early-stage lung cancer or metastatic cancer that has spread to the lungs from another site in the body.

Non-small cell carcinoma – a group of types of lung cancer sharing certain characteristics, that makes up 85-90 per cent of all lung cancers. Includes squamous carcinoma and adenocarcinoma. See also small cell carcinoma.

NOS – not otherwise specified. In the case of NSCLC histology, this implies that the histological diagnosis has not been sub-classified to a particular cell type e.g. squamous carcinoma, adenocarcinoma etc.

NSCLC – non-small cell lung cancer.

Operability – in the consideration of surgical treatment of a lung cancer, refers to the patients' ability to cope with both the operation and the subsequent reduction of lung volume and function. See also resectability.

Oncologist – a doctor who specializes in treating people with cancer.

Oncology – the study and treatment of tumours.

Palliative – (of a medicine or medical care) relieving pain without dealing with the cause of the condition.

Performance Status – a systematic method of recording the ability of an individual to undertake the tasks of normal daily life compared with that of a normal person.

PET scan – an abbreviation for positron emission tomography. This is a computerised diagnostic technique that uses radioactive substances to examine structures of the body. Nowadays usually combined with a CT scan (PET-CT scan). It produces a three-dimensional image that reflects the metabolic and chemical activity of the body.

Pneumonectomy – surgical removal of a lung or part of a lung.

Radiologist – a doctor specialising in the use of imaging technologies, including radiation, to diagnose and treat disease.

Radiotherapy – the treatment of cancer using radiation, which is most often delivered by X-ray beams (external beam radiotherapy) but can be given internally (brachytherapy).

Resectability – in the consideration of surgical treatment of a lung cancer, refers to the ability of the Surgeon to remove the tumour taking into account its location and stage. See also operability.

RCP – abbreviation for The Royal College of Physicians, the professional body of doctors practicing general medicine and its sub-specialties.

SCLC – small cell lung cancer.

Secondary care – care provided by a hospital as opposed to that provided in the community by a general practitioner and allied staff (primary care).

Small cell lung cancer – a type of lung cancer making up around 10-15 per cent of all lung cancers. See also non-small cell carcinoma.

Squamous Carcinoma– a type of cancer arising from cells which line body cavities.

Staging/Stage – the anatomical extent of a cancer.

Surgical resection – an operation to remove abnormal tissues or organs.

Tertiary Centres – hospitals that specialise in diagnosis and treatment of specific conditions, often handling very complex cases. Other hospitals may refer patients to these centres for specialist treatment.

Thoracic Surgeon – specialist surgeon who operates on the chest and lungs.

Wedge resection – an operation to remove a section of lung tissue smaller than a lobe – see also lobectomy.

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For further information:

**www.hscic.gov.uk**
**0845 300 6016**
**enquiries@hscic.gov.uk**