



Royal College  
of Physicians

National Lung  
Cancer Audit

# National Lung Cancer Audit annual report 2015 (for the audit period 2014)



In association with:



Public Health  
England



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Related publications	NICE Quality Standard for Lung Cancer 2012: <b><a href="http://www.nice.org.uk/guidance/qs17">www.nice.org.uk/guidance/qs17</a></b>  National Lung Cancer Audit annual report 2014: <b><a href="http://www.rcplondon.ac.uk/projects/outputs/nlca-annual-report-2014">www.rcplondon.ac.uk/projects/outputs/nlca-annual-report-2014</a></b>
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Thank you to all the lung cancer teams that have contributed data to the audit; without your considerable efforts, this report would not be possible.

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## Foreword

These are exciting times in lung cancer, with the development of a number of novel therapies that may revolutionise treatment paradigms for the future. However, we should not lose sight of the fact that thousands of lives could be saved if the standard of lung cancer care across the country achieved that of the best-performing hospitals.

In December 2014, the Royal College of Physicians (RCP) was awarded the new contract to deliver the National Lung Cancer Audit (NLCA) in England and Wales for the next 3–5 years. Working in partnership with our key stakeholder organisations, we are determined to work together with lung cancer teams to maintain excellent levels of engagement and to go even further to improve outcomes for patients.

I am delighted that we have been able to produce a report relating to patients seen in 2014, but I am very aware that our first report is transitional in nature. Lung cancer teams and our partners at the National Cancer Registration Service (NCRS) and the University of Nottingham have worked incredibly hard to submit and analyse the data. It is testament to this hard work that we have near-complete population coverage again this year. While there may have been a slight dip in data quality, this dataset remains one of the most complete cancer datasets in the world. However, there is no room for complacency. From the beginning of 2015, all lung cancer audit data in England will come to us via a brand new route – the Cancer Outcomes and Services Dataset (COSD). We must ensure that this switch does not negatively impact on data quality or distract us from our key aim of improving outcomes for lung cancer patients. Indeed, the data presented in this report highlight that a number of organisations still have work to do to achieve the audit standards that were set in 2014.

We have set new standards for 2016 onwards that are deliberately stretching, but also include new measures to cover more areas of the diagnosis and treatment pathway. We are appointing a new clinical co-lead with an interest in quality improvement, and plan to pilot a deep-dive audit function to help trusts to achieve these new standards. Another exciting development is the opportunity to explore the feasibility of collecting patient-reported outcomes as part of the audit for the first time.

Finally, I would like to acknowledge the outstanding contribution to the audit of Dr Mick Peake, who is stepping down at the end of this year. Under his leadership over the last 10 years, the NLCA has set the standard for cancer audits and I am confident that we can continue to do so over the next 10 years.

**Dr Ian Woolhouse**

**Senior clinical lead, National Lung Cancer Audit**

## Executive summary

This report summarises the key findings from the 11th annual National Lung Cancer Audit (NLCA) for patients diagnosed with lung cancer in England, Wales, Guernsey and Scotland in 2014. The purpose of the audit is to review the quality of lung cancer care, to highlight areas for improvement and to reduce variation in practice.

Lung cancer is the second most common cancer in the UK after breast cancer. In 2012, there were over 40,000 new cases of lung cancer in the UK and more than 35,000 people died from the condition. Current survival rates for lung cancer are the second lowest out of 20 common cancers in England and Wales.<sup>1</sup>

The NLCA has been collecting data since 2005 and has become an exemplar of national cancer audit; it currently forms part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP) commissioned by the Healthcare Quality Improvement Partnership (HQIP).

NLCA data have been widely disseminated through abstracts at national and international meetings and in peer-reviewed publications. Local data have been used as a driver for local service improvement projects. The data have also been used to underpin National Institute for Health and Care Excellence (NICE) guidelines, to inform research protocols and to guide national service developments.

In late 2014, the contract for the NLCA was awarded to the Royal College of Physicians (RCP) and is now delivered in partnership with a number of key stakeholders. The National Cancer Registration Service (NCRS) at NHS England collects and processes the NLCA data for England through the Cancer Outcomes and Services Dataset (COSD). This replaces the previous bespoke dataset submitted by trusts through a web portal (LUCADA). The University of Nottingham, subcontracted through the RCP, provides the analysis for England and Wales. Clinical leadership is provided by lung cancer experts recruited through the Clinical Effectiveness and Evaluation Unit at the RCP.

The NLCA executive group is constituted by the Society for Cardiothoracic Surgery (SCTS), the Roy Castle Lung Cancer Foundation representing lung cancer patients, the Welsh Lung Cancer Special Advisory Group, the National Lung Cancer Forum for Nurses and the British Thoracic Oncology Group.

### Overview of the results

To maximise a focus on data quality during this year of transition, organisations were asked to submit a limited number of key data items for 2014. Trusts<sup>2</sup> in England were offered the opportunity to submit their LUCADA data files for the NLCA via the NCRS, in order to supplement their COSD submissions.

Despite a transitional year, participation in the audit by lung cancer services in England, Guernsey, Scotland and Wales has been outstanding, collectively contributing data on over 37,000 patients diagnosed with the disease in 2014. It has proved more difficult than anticipated for the NLCA team to collate data for trusts in England from both LUCADA and COSD submissions within the timeline of the report. Therefore, for this annual report we include the 2014 results from 132 trusts that submitted LUCADA data. Early in 2016, we will produce an online appendix for the remaining 19 trusts that submitted COSD submissions only.

<sup>1</sup> CRUK, 2015: [www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/lung-cancer](http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/lung-cancer) [accessed November 2015].

<sup>2</sup> The term 'trust' has been used to refer to English organisations participating in the audit.



Scottish data are not submitted at an individual patient level and so 'national' results noted below represent the overall picture across England, Wales and Guernsey.

Notwithstanding possible data quality issues relating both to non-participating English trusts and to data quality issues in participating trusts, the results this year show a fall in a number of markers of clinical quality of lung cancer services. There is room for improvement in a number of key areas where organisations did not meet the measures recommended in the 2014 report.

2014 recommendation: Data completeness for key fields to exceed 85%.

2015 result: Overall recordings of key data items continue to be of a high standard: 89% of submitted records included performance status and 92% included disease stage; 84% included both items.

2014 recommendation: Maintain the level of 95% of patients submitted to the audit discussed at a multidisciplinary team (MDT) meeting.

2015 result: 94% of cases submitted were recorded to have been discussed in an MDT meeting.

2014 recommendation: Pathological confirmation rates below 75% should be reviewed to determine whether best practice is being followed.

2015 result: 69% of cases submitted were recorded to have a pathological confirmation of their cancer.

2014 recommendation: At least 80% of patients are seen by a lung cancer nurse specialist (LCNS).

2015 result: 78% of patients were recorded to have seen a specialist nurse (although 13% of cases were missing this information).

2014 recommendation: Active anticancer treatment rates below the England and Wales average of 60% should be reviewed.

2015 result: 58% of patients were recorded to have had anticancer treatment.

2014 recommendation: Chemotherapy rates for small-cell lung cancer (SCLC) below the England and Wales average of 70% should be reviewed.

2015 result: 68% of patients with SCLC were recorded to have had chemotherapy.

2014 recommendation: Chemotherapy rates for good performance status (PS 0–1) stage IIIB/IV non-small-cell lung cancer (NSCLC) below the England and Wales average of 60% should be reviewed.

2015 result: 58% of patients with good PS and stage IIIB/IV NSCLC were recorded to have had chemotherapy.

### Outlier process

There are four treatment measures shown as unadjusted and adjusted in the report; for the latter we have not provided confidence intervals, but have used red/amber/green (RAG)-rated icons to indicate the significance.

As not all trusts in England have been included in the data analysis for this report, a formal outlier identification process has not been undertaken.

Survival data, population coverage and data field completeness rates will be available for organisations to review online, and these should be considered when cross-referencing results.



## **Plans for 2016 onwards**

We have updated the audit standards to include additional items relating to new diagnostic processes and treatments; these can be found within the key recommendations section.

In early 2016, we will launch the second Lung Cancer Consultant Outcomes Publication (LCCOP) for data on resection rates and survival after surgery for primary lung cancer in England between January and December 2013.

LCCOP is an HQIP programme relevant to thoracic surgeons and it is a national and mandatory programme for NHS hospitals in England. The report will be produced jointly by the NLCA and the SCTS.

In addition to routine lung cancer audit activity, with the full transition into COSD data in 2016, we plan to pilot a 'spotlight' audit module for trusts in England to collect additional data items to allow them to better understand and address potential undertreatment of their lung cancer patients. This will be in the form of an online tool that will be targeted at trusts with poor performance or outcomes in a particular area.

## What do the data results mean for me?



**Patients, their families and their carers** should welcome the engagement of clinical teams with the audit process, and the maintenance of high-quality data submissions in this year of transition. However, they should be concerned that significant variation still exists in the care delivered across different organisations. For example, why is a cancer diagnosis pathologically confirmed in fewer than 60% of patients in 27 organisations?



**NHS staff in lung cancer multidisciplinary teams** should use the findings of this report, alongside our more detailed online analyses and the 'live' data on CancerStats, as a basis improving data quality, for clinical governance meetings and for quality improvement initiatives. We promote the concept of a 'clinical data lead' in every lung cancer multidisciplinary team – a person who understands the data, how they are collected and how they align to the national context.



**Hospital managers and chief executives** should seek to understand and to challenge areas of poor performance identified in this report, and should discuss the findings with their clinical teams who know the strengths and weaknesses of the service best. Such discussions can be key in unlocking barriers to improvement.



**Commissioners** in England should use this report alongside the soon-to-be-released National Service Specification, to understand areas of weakness in provider hospitals and to ensure that the services they commission provide the highest quality. For example, why do fewer than 70% of patients see a specialist nurse in around 30 hospital trusts?



**The NLCA project team** should consider how to assist provider hospitals in using the weaknesses identified to drive effective and sustainable change. For example, an online library of quality improvement success stories, or a network of clinicians with quality improvement expertise might be useful resources.

## Key recommendations

We make a number of specific recommendations against which we will audit, analyse and report in the next annual report. Our recommendations require change, as is true for all quality improvement (QI). Delivering that change is beyond the scope of this report, but we provide a toolkit ([www.rcplondon.ac.uk/nlca2015](http://www.rcplondon.ac.uk/nlca2015)) to assist this process. In future, the NLCA plans to support organisations to develop, implement and evaluate lung cancer QI strategies using NLCA data.

### Data completeness

- 1 Organisations should work to maintain or improve the quality of data submitted to the NLCA, including detailed clinical data to allow the most accurate risk adjustment to be carried out.
  - a) Both performance status (PS) and stage should be recorded in at least 90% of cases.
  - b) The 'reason for no anticancer treatment' field of COSD should be completed in 100% of relevant patients.
  - c) For patients with stage I–II and PS 0–1, completeness for FEV1 and FEV1% should exceed 75%.
- 2 All MDTs should appoint a 'clinical data lead' with protected time to allow promotion of data quality, governance and QI (to be measured through future rounds of organisational audit).

### Process of care

- 3 Pathological confirmation rates below 75% should be reviewed to determine whether best practice is being followed and whether patients have effective access to the whole range of biopsy techniques.
- 4 Non-small-cell lung cancer, not otherwise specified (NSCLC NOS) rates of more than 15% should be reviewed to ensure that best practice histological diagnostic techniques including immunohistochemistry are being followed, in order that patients receive appropriate chemotherapy regimens.
- 5 At least 90% of patients are seen by an LCNS; at least 80% of patients should have an LCNS present at the time of diagnosis.
- 6 For patients undergoing bronchoscopy, at least 95% should have a CT (computerised tomography) scan prior to the procedure.

### Treatment and outcome

- 7 MDTs with lower than expected surgical resection rates for NSCLC (below 16% or low odds ratio after casemix adjustment) should perform detailed case-note review to determine why each resectable patient did not receive an operation, including whether a second opinion was offered to borderline fit patients.
- 8 MDTs with lower than expected active anticancer treatment rates (below 60% or low odds ratio after casemix adjustment) should perform detailed case-note review to determine why patients with good PS did not receive active anticancer treatment.
- 9 MDTs with lower than expected chemotherapy rates for SCLC (below 70% or low odds ratio after casemix adjustment) should perform detailed case-note review to determine why each SCLC patient did not receive chemotherapy.
- 10 MDTs with lower than expected chemotherapy rates for good PS (0–1) stage IIIB/IV NSCLC (below 60% or low odds ratio after casemix adjustment) should perform detailed case-note review to determine why each advanced NSCLC patient with good PS did not receive chemotherapy.

## Purpose and background

The NLCA was developed in response to the finding in the late 1990s that outcomes for lung cancer patients in the UK lagged behind those in other westernised countries, and varied considerably between organisations. The audit began collecting data nationally in 2005, and since then has become an exemplar of national cancer audit.

The purpose of this document, the 11th NLCA annual report, is to summarise the key findings of the audit for patients diagnosed with lung cancer across the UK in 2014. More extensive analyses of the data, including casemix-adjusted data, in an electronic spreadsheet format will be available from the RCP website at [www.rcplondon.ac.uk/nlca2015](http://www.rcplondon.ac.uk/nlca2015).

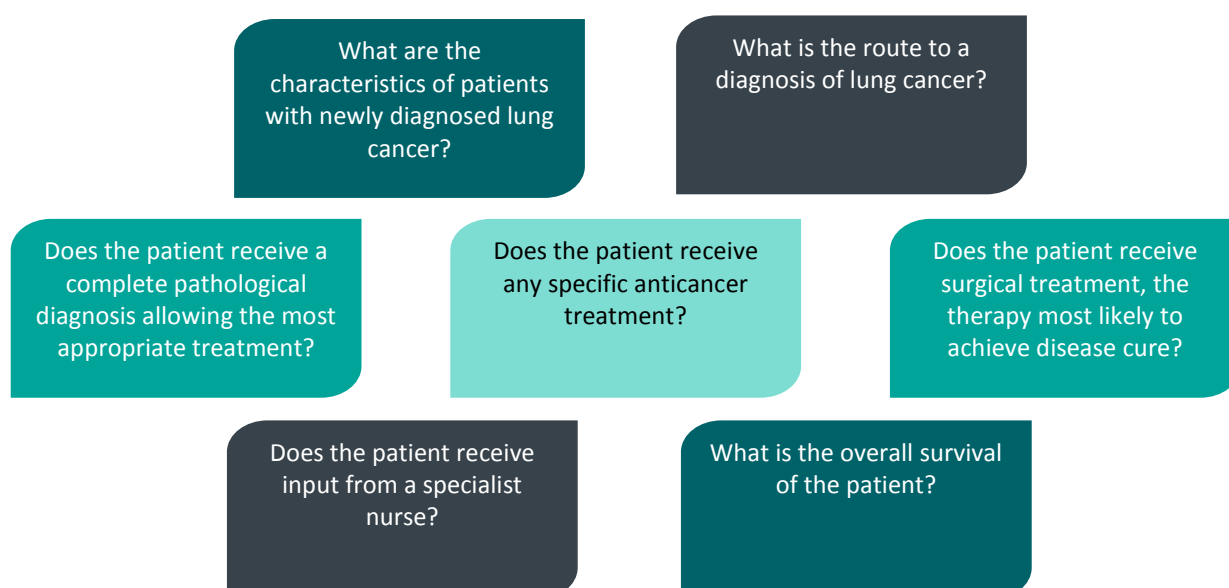
### Background to the audit

The NLCA is commissioned by the Healthcare Quality Improvement Partnership (HQIP) on behalf of NHS England in response to the need for better information about the quality of lung cancer services and care provided in England and Wales.

HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the National Clinical Audit Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.  
[www.hqip.org.uk](http://www.hqip.org.uk)

Until the end of 2014, the contract was held by the HSCIC. In 2014, HQIP opened a retendering process to run the audit for the next 3–5 years. The contract was awarded to the RCP, which now works in partnership with the NCRS, the Division of Epidemiology and Public Health at the University of Nottingham, the National Lung Cancer Forum for Nurses (NLCFN), the Society for Cardiothoracic Surgery (SCTS), the British Thoracic Oncology Group (BTOG), the Roy Castle Lung Cancer Foundation and the Welsh Lung Cancer Special Advisory Group to deliver the audit (Appendix 3).

We have defined seven overarching questions that guide the data collection and reporting in the audit:



## Dataset

The NLCA in England now uses the COSD as its primary data source ([www.ncin.org.uk/collecting\\_and\\_using\\_data/data\\_collection/cosd](http://www.ncin.org.uk/collecting_and_using_data/data_collection/cosd)). This is a revised generic cancer registration dataset with additional clinical and pathology site-specific data items relevant to different tumour types. The COSD specifies the items to be submitted electronically by service providers to the NCRS on a monthly basis. The COSD also identifies the items that the NCRS will obtain from other sources, such as cancer waiting times and the Office for National Statistics.

**The aim of the NLCA is to drive further improvements in lung cancer care and outcomes by bringing the standard of all lung cancer MDTs up to that of the best.**  
**Dr Ian Woolhouse**

Historically, the NLCA used a bespoke dataset submitted through a web portal (known as LUCADA – LUng Cancer Data); although from the time of the introduction of the COSD in 2013, organisations submitted data through both routes, the LUCADA dataset was considerably more complete. Following transfer of the contract to the RCP, the web portal was shut down, and so as not to lose the opportunity to use the LUCADA data collected through 2014, organisations were offered the opportunity, for this year of transition only, to submit their LUCADA data to the NCRS; 132 of 151 English trusts submitted a LUCADA data file (see below). Furthermore, the project team advised organisations to focus on a restricted number of data items in order to maximise the quality of data on the most critical clinical measures. We do appreciate that, in this time of transition, data quality has deteriorated somewhat and individual organisations should take this into account in their response to the report findings.

For Wales, Scotland and Guernsey, the dataset and data transfer arrangements are unchanged. In Wales, data are collected through the Cancer Network Information System Cymru (CANISC) and patient-level data are submitted to the NLCA; likewise, in Guernsey, patient-level data are collected and submitted to the analysis team. Scottish data are collected and analysed locally; thus summary, rather than patient-level, data are submitted for inclusion in the report. It is for this reason that Scottish results may appear separate in this report.

## Reporting

This report covers patients with a diagnosis of cancer that has been classified with code C33–C38 of the 10th edition of the World Health Organization International Classification of Disease (WHO ICD-10). We have excluded mesothelioma (C45) from the main report, having published a mesothelioma-specific report earlier in 2014; plans are underway to produce a similar report in 2017 and we encourage organisations to continue to collect high-quality mesothelioma data in anticipation of this.

In contrast to previous years of the audit, when patients were assigned to a cohort based on the year in which they were first seen in secondary care, we have moved to a cohort based on the year of diagnosis. Details of care provided by individual organisations in this report are based on ‘place first seen’ in secondary care; in the vast majority of cases, it represents the location of the MDT that coordinates the investigation and treatment of the individual patient. As a result, some tertiary trusts in England 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 often provide the most complex care for the most difficult-to-treat patients and submit treatment data on behalf of other trusts.

Participation in the audit by lung cancer services in England, Guernsey, Scotland and Wales has been outstanding, collectively contributing data on over 37,000 patients diagnosed with the disease in 2014. Unfortunately, in this year of transition it has proved much more difficult than anticipated to bring together the very different COSD and LUCADA data sources submitted from English trusts within the necessary timeline for publication of this report. As a result, for the English data in this annual report,

we have taken the decision to analyse and report on only the 132 (of 151) participating trusts that have submitted a LUCADA data file. In due course, we will bring together all of the data and provide an updated analysis online. **This is in no way a reflection on the 19 trusts not included in this report that submitted COSD data in good faith.**

We report the results of the NLCA at national, strategic clinical network (SCN) and trust or health board levels. Overall national results, unless otherwise stated, represent analysis of the combined patient-level data from England, Wales and Guernsey, as Scotland currently provides only summary data.

### Standards and NICE guidelines

National guidelines produced by the National Institute for Health and Care Excellence (NICE) underpin the approach to management of patients with lung cancer in England (<http://pathways.nice.org.uk/pathways/lung-cancer>). NICE has produced a set of 15 quality standards (Qs) intended to describe what a high-quality lung cancer service should deliver, although they stop short of setting numerical standards. Similar standards exist in Scotland ([www.healthcareimprovementscotland.org/our\\_work/cancer\\_care\\_improvement/cancer\\_qpis.aspx](http://www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis.aspx)).

Patients vary greatly in their disease profile, their fitness for investigation and treatment, and their own preferences for their care. As a result, it is not always easy to interpret the results of individual organisations. However, setting standards is an important driver of improvements in care; without standards, we cannot know which organisations are doing well and we cannot learn from them; similarly, we cannot know which organisations are performing poorly and we cannot try to help them. Thus, we have produced standards that reflect NICE guidelines and Qs and that have a broad clinical consensus, but we acknowledge that sometimes organisations will fall outside the 'normal range' for good reason. Our standards are not designed to encourage clinicians to overinvestigate or overtreat their patient. On the contrary, healthcare professionals must always act in the best interests of their patients and a finding of this report, for example a lower-than-expected cancer treatment rate, should not lead to a knee-jerk change in practice to treat more patients, but rather a more detailed analysis of the data to understand why the differences exist.

In England, HQIP and the Care Quality Commission (CQC) are working to optimise the use of national clinical audit (NCA) data for both quality assurance and QI. The CQC aims to develop a robust methodology underlying the use of NCA data to better inform its hospital inspections. Concurrently, HQIP aims to develop a public-facing, online resource that provides a summarised list of key NCA data at trust level.

The NLCA team will be participating in the first roll-out of the HQIP/CQC collaboration. Five key metrics were agreed with the NLCA executive group for use in this project:

- 1 proportion of patients alive at 1 year
- 2 proportion of patients seen by LCNS
- 3 overall surgical resection rate
- 4 NSCLC chemotherapy rate (stage IIIB/IV, PS 0–1)
- 5 SCLC chemotherapy rate.

Once data flow to the CQC is established and the HQIP dashboard developed, data from each trust in England will be submitted to the CQC/HQIP annually after publication of the annual report.

Quality is never an accident. It is always the result of intelligent effort.

John Ruskin

## Population coverage

In 2014 there were 30,765 patient records submitted from England, 2,219 from Wales, 43 from Guernsey and 4,382 from Scotland. Although the numbers for England are lower than in previous years, this reflects the 19 trusts that were not included in the analysis, as well as more general issues with data submissions relating to the transition of the audit. These numbers are still estimated to represent around 98% 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 only at a post-mortem), as has been the case for several years. Figure 3 shows the annual trend in data submissions (England and Wales combined) over time.

**37,409**  
submitted cases  
in 2014



Figure 1: Number of patient records submitted to the NLCA – England, Wales and Guernsey

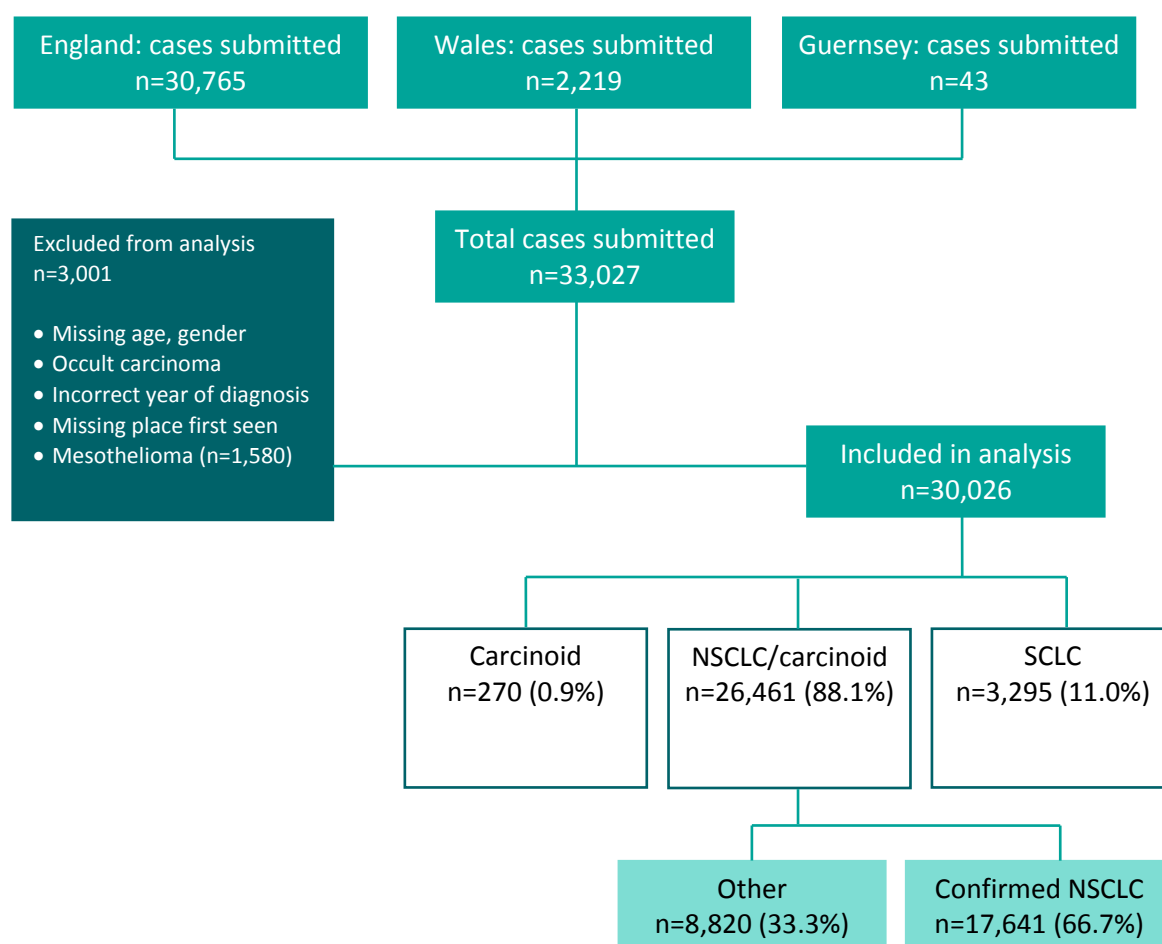




Figure 2: Number of patient records submitted to the NLCA – Scotland

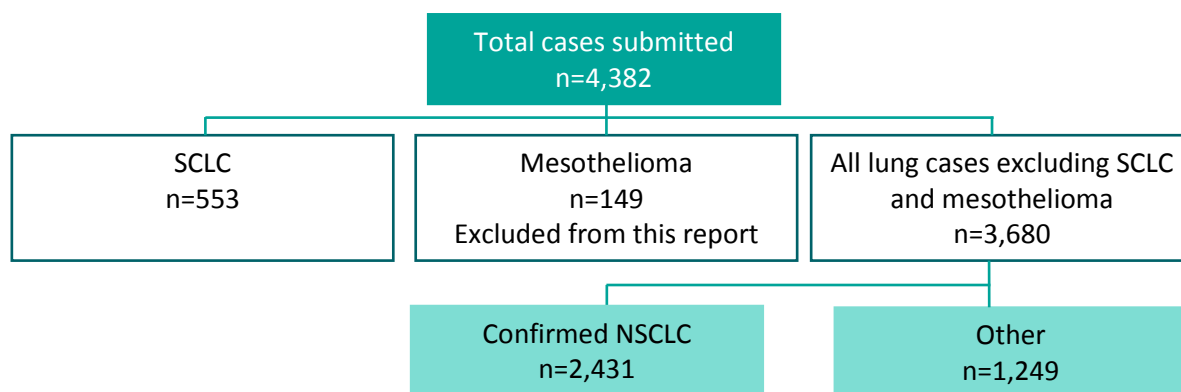
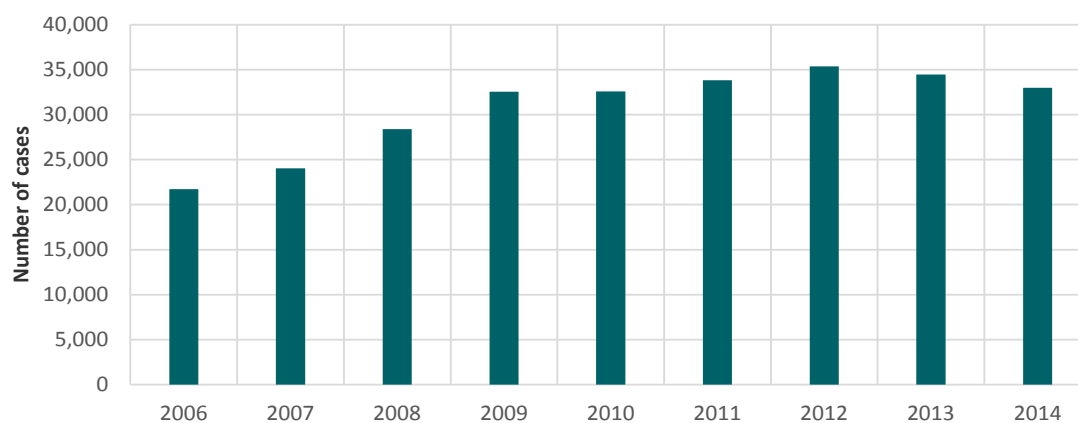


Figure 3: Numbers of cases submitted to the NLCA – England and Wales (2006–2014)



## Data field completeness

Data completeness for individual organisations is available online this year. Overall recording of key data items continues to be of a high standard; this year, 92% of submitted records include stage and 89% include PS. These figures represent a slight drop following progressive improvements in previous years (Figure 4), although it should be recognised that this is still a high level of completion compared with other cancer audits. Nationally, 43 organisations failed to meet the target of 85% data completeness for PS and 28 failed the target for stage.

Cancer TNM stage

92%  
complete

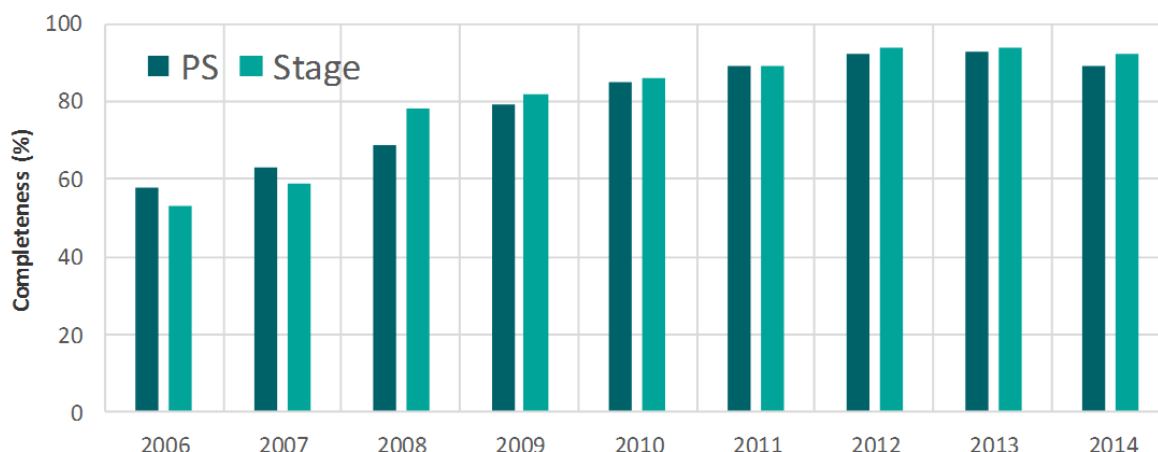


Performance status

89%  
complete



Figure 4: PS and stage data completeness – England and Wales (2006–2014)



The transition to the new audit arrangements has led to some deterioration in the quality of the data from English trusts, not just for PS and stage, but possibly also in the recording of treatment data. **For this reason, organisations should take care to understand all aspects of their performance (completeness, proportions and casemix-adjusted odds ratios) before coming to conclusions about their lung cancer services.**

### Data submission for 2015 onwards

We recommend that organisations use the *National Lung Cancer Audit improvement toolkit* ([www.rcplondon.ac.uk/nlca2015](http://www.rcplondon.ac.uk/nlca2015)) to improve their data submissions.

From the beginning of 2015, all data for the NLCA in England will be submitted via COSD; it will be challenging for trusts to maintain their data completeness when transitioning to this system. The online COSD portal, CancerStats, has also launched this year and is designed to collect all the reporting products from the NCRS and the National Cancer Intelligence Network (NCIN) in one easy-to-find location (N3 connection required).

- Data submission reports – have the data been received, have the data been received by the deadline, is the file in the correct format?
- Data completeness reports focus on the data items on which the NLCA team are encouraging teams to concentrate throughout 2015 and 2016.
- NLCA process and outcome reports are in development – these will provide further details on key data items, such as the proportions of patients treated with surgery, chemotherapy or radiotherapy.

Viewing CancerStats provides a way to ensure that the NCRS is accurately receiving the data that trusts in England are submitting from local cancer systems. Further detail can be found via an N3 connection at: [www.cancerstats.nhs.uk/users/sign\\_in](http://www.cancerstats.nhs.uk/users/sign_in).

Data completeness and quality are still key to the ongoing success of the NLCA and we would encourage audit participants to view their 2014 data completeness at:  
[www.rcplondon.ac.uk/nlca2015](http://www.rcplondon.ac.uk/nlca2015)

## Demographics

Analysis of the data submitted to the audit allows a detailed description of the population of patients who are diagnosed with lung cancer. In this section, we provide information on the age of patients and how this has changed over recent years. We also highlight the link between deprivation and lung cancer by charting the numbers of cases by socio-economic status. Finally, we look at the influence of gender on various factors.

Figure 5: Age at diagnosis (NSCLC)

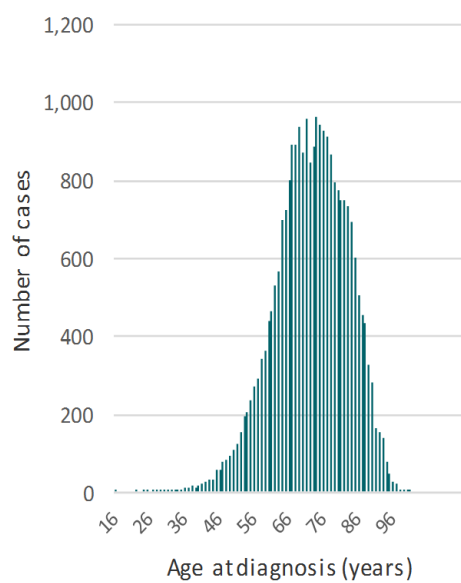
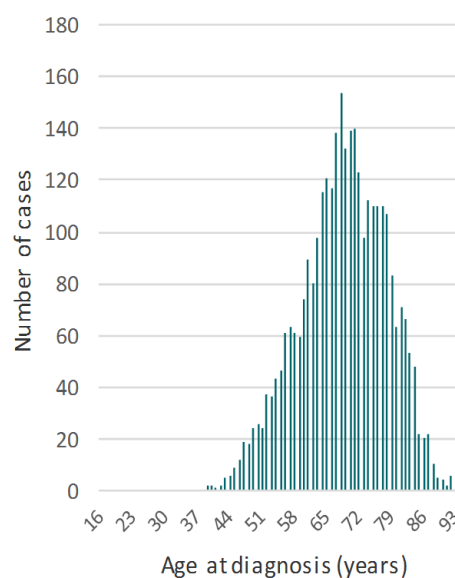
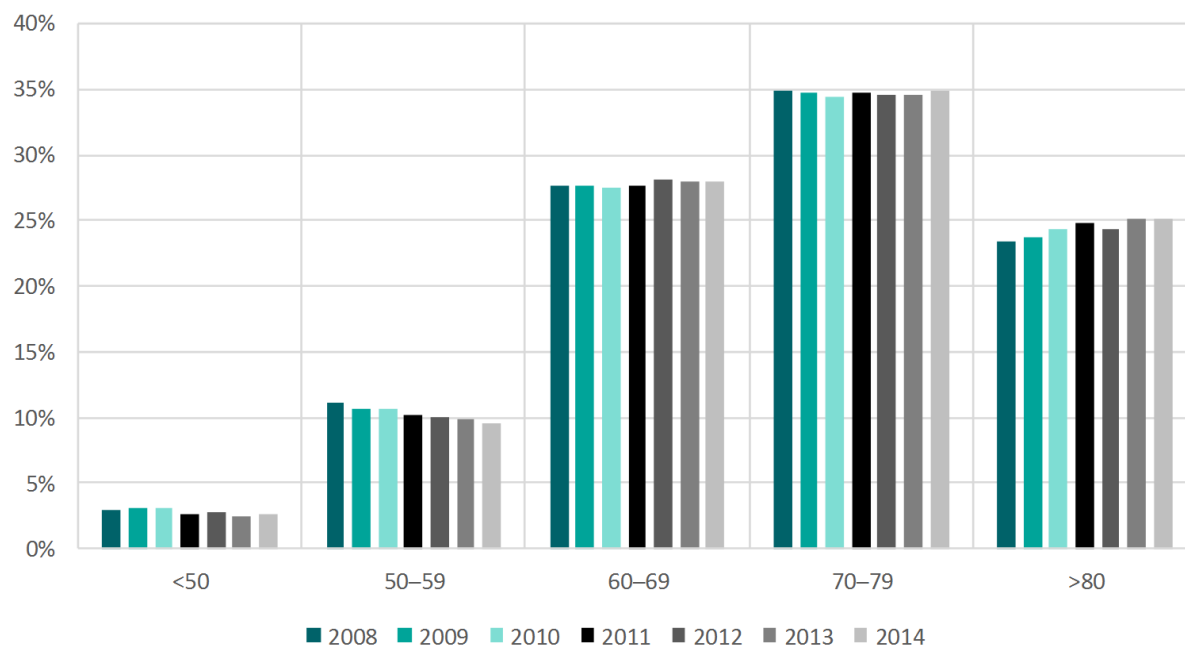


Figure 6: Age at diagnosis (SCLC)



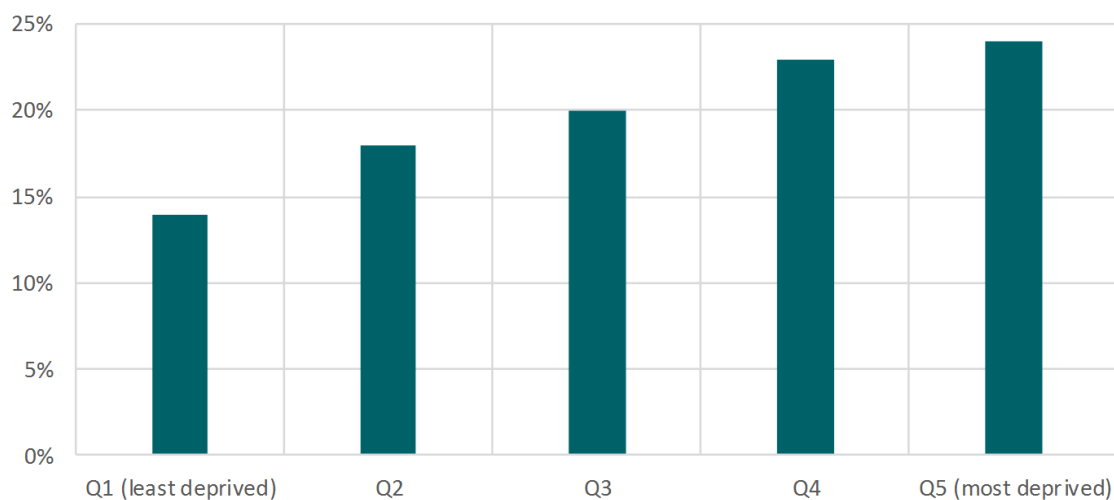
NSCLC patients have a median age of 73 years at diagnosis, and SCLC patients have a median age of 69 years. Patients with carcinoid tend to be even younger at diagnosis, with a median age of 65 years.

Figure 7: Age at diagnosis by audit year (all lung cancers)



The chart shows how there has been a progressive reduction in the number of younger patients with lung cancer, perhaps reflecting trends in tobacco smoking. At the same time, more cases are diagnosed in older patients, which reflects our ageing population as well as better access to diagnostic techniques such as CT scanning.

Figure 8: Index of multiple deprivations (all lung cancers)



Proportionately, more lung cancer patients come from the most socio-economically deprived parts of society. This reflects the link between higher rates of tobacco smoking in more socio-economically deprived populations.

Figure 9: Demographics according to gender (England only)

**Females (46%)**

Median age	72
PS 0–1	47%
Stage I–II	25%
Anticancer treatment	57%
Surgery	16%
Chemotherapy	29%
Radiotherapy	26%

**Males (54%)**

Median age	73
PS 0–1	46%
Stage I–II	21%
Anticancer treatment	58%
Surgery	13%
Chemotherapy	30%
Radiotherapy	30%

## Standards of care

### Commentary on England

This has been a very challenging year for the NLCA in England. The changes to the infrastructure place the audit in a good position to make really significant progress over the next 3–5 years, but it has taken considerable time and effort to re-establish the clinical engagement, and to implement the new data collection and data analysis methodologies. There is no doubt that this has affected the quality of the 2014 data, but in early 2015 there were fears that the 2014 data might never be collected, and so it is a fantastic achievement on the part of many, many people in lung cancer MDTs, and in the audit team itself, to have produced this report. Improving the quality of the data back to previous levels and hopefully beyond will be a major focus for the coming year.

Emerging evidence from a variety of sources indicates a progressive improvement in outcomes for lung cancer patients in England, from a 5-year survival rate of around 7% in the 1990s to a projected rate of 16% for patients diagnosed now. It is perhaps invidious to compare the clinical standards in this report with those of previous years in view of the drop in data quality. That said, the data as presented show more variation across the country, and a reduction in the proportion of patients getting pathological confirmation of their diagnosis (fallen from 75.1% to 70.5%), overall active treatment (fallen from 60.2% to 57.6%) and the various individual components of this since the previous audit. It is, however, gratifying to see the improvements in the refinement of the pathological diagnosis when it occurs, with the NSCLC NOS rate now standing at 12%.

We hope and expect that our next report in 2016 will re-establish the progressive improvement that we have seen over recent years.

Dr Paul Beckett  
Clinical lead, NLCA

### Commentary on Wales

We are pleased to see that very high percentages of lung cancer patients have continued to have their diagnosis and management discussed by an MDT (99.6%) and to be supported by an LCNS (88.0%). Anticancer treatment was also good at 60.6%, and there was an increase in patients receiving surgery (increasing from 10.9% in last year's audit to 15.7% reported in this report). There has been an encouraging increase from 56.4% to 61.1% in the numbers of fit patients with advanced NSCLC having chemotherapy.

These findings will feed into the Welsh Government's Lung Cancer Initiative, which has been selected as a national priority for 2015/16 and 2016/17. They will also inform the second round of peer review of lung cancer MDTs scheduled next year. Work is being planned from a public awareness campaign to critical points through the primary and secondary care clinical pathway to improve outcomes and experience for people with lung cancer in Wales. As part of this, GPs are undertaking significant event audits of each new lung cancer patient and are being supported by excellent detailed epidemiology provided by the Welsh Cancer Intelligence and Surveillance Unit.

Dr Jane Hanson  
Lead adviser for cancer, Welsh Government  
Prif gynghorydd cancer, Llywodraeth Cymru  
Head of Cancer National Specialist Advisory Group Core Team, Public Health Wales  
Pennaeth Tim Grwp Cynghori Arbenigol Cenedlaethol Cancer, Iechyd Cyhoeddus Cymru



## Commentary on Scotland

The Scottish Government's Better Cancer Care action plan published in 2008<sup>3</sup> included a commitment to working with clinicians to develop quality indicators for cancer services. As a result of this, the National Cancer Quality Steering Group was established to oversee the development of a small number of national, tumour-specific quality performance indicators (QPIs). The QPIs were developed by clinical staff across the three regional cancer networks in collaboration with the Information Services Division (ISD), Healthcare Improvement Scotland, the Scottish Cancer Coalition and the Scottish Government.

The implementation and monitoring of these performance measures are underpinned by a national governance framework that includes responsibility at health board level. The financial year to March 2014 was the first full year of QPI data collection and data were published in May 2015. There are areas where the data are immediately comparable with data collected in England and Wales; however, there are other areas where the data definitions differ and therefore any direct comparisons should be made with caution. Where possible alignment of comparable data is indicated and where data definitions and other differences pertain, it is important to refer to the detailed Scottish ISD National Dataset<sup>4</sup> and Measurability<sup>5</sup> documents.

We all believe that data collection needs to be as close to real time as possible, and compared locally and nationally with agreed standards in order to drive service improvement. We therefore welcome this opportunity to showcase our data adjacent to data from England and Wales for comparison and discussion. We are now into the second year of Scottish QPI data analysis and, after a third iteration, there will be an opportunity to formally review QPIs to ensure that they continue to be clinically relevant and that they focus on those areas most important in delivering improvements to the quality of patient care.

Not all of the QPIs are achieved across all health boards. This confirms the aspirational nature of the QPI targets and suggests that there are areas for improvement, particularly around surgical resection in NSCLC, chemo or radiotherapy in limited-stage SCLC and systemic anticancer therapy in NSCLC. A number of the more challenging QPIs are not reported here, as there are no comparable data for other areas of the UK. However, Scottish lung cancer data for all QPIs will continue to be analysed regionally on an annual basis, and nationally on a 3-yearly basis in line with the national QPI governance process. Health boards in Scotland will develop action/improvement plans in response to audit findings, and progress against these plans will be monitored by regional cancer networks and Healthcare Improvement Scotland. Regional networks will continue the close collaboration with the NLCA with a view to identifying further comparable measures and aligning future reporting periods.

Colin Selby, clinical lead, SCAN Lung Group

John McPhelim, clinical lead, WoSCAN

Hardy Remmen, clinical lead, NoSCAN

<sup>3</sup> [www.gov.scot/Publications/2008/10/24140351/0](http://www.gov.scot/Publications/2008/10/24140351/0)

<sup>4</sup> [www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Lung/Lung\\_Cancer\\_QPI\\_Dataset\\_V2.4\\_FINAL.pdf](http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Lung/Lung_Cancer_QPI_Dataset_V2.4_FINAL.pdf)

<sup>5</sup> [www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Lung/Lung\\_Cancer\\_QPI\\_Measurability\\_v2.5\\_Final.pdf](http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Audit/docs/Lung/Lung_Cancer_QPI_Measurability_v2.5_Final.pdf)

## National performance measures

In December 2014, we published audit data on patients who were first seen in secondary care in 2013. Based on these data, we made a number of recommendations; organisational performance against these measures is detailed below. We have also indicated where these results align to NICE Qs. Results for individual organisations can be found in the next section.

1

### RECOMMENDATION

**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, and should complete all relevant data fields for each individual patient.**

Fortunately, even in this transition year, all secondary care organisations in England, Wales, Scotland and Guernsey have contributed data to the audit.



2

### RECOMMENDATION

**All hospitals, trusts and health boards are encouraged to submit validated data for future rounds of organisational audit.**

No organisational audit was carried out in 2014.



3

### RECOMMENDATION

**Data completeness for key fields should exceed 85% and for MDT completeness should exceed 95%.**

Nationally, 89% of submitted records included PS and 92% included disease stage. 84% of records included both of these data items. Overall, only just over 50% of trusts achieved the target for PS and stage recording.



4

### RECOMMENDATION

**Data completeness for the comorbidity field should exceed 85%, and for patients with stage I-II and PS 0-1, completeness for FEV1 and FEV1% should exceed 75%.**

Data collected in this transition year do not allow the analysis of this measure.



5

### RECOMMENDATION

**Maintain the level of 95% of patients submitted to the audit being discussed at an MDT meeting. ALIGNS TO NICE QS9**

Nationally, 94% of cases submitted were recorded to have been discussed in an MDT meeting. Overall, 51 trusts (approximately 35%) did not achieve this standard.



## 6

## RECOMMENDATION

**Pathological confirmation rates below 75% should be reviewed to determine whether best practice is being followed and whether patients have access to the whole range of biopsy techniques. ALIGNS TO NICE QS7**

Nationally, 69% of cases submitted were recorded to have a pathological confirmation of their cancer. Overall, 102 trusts (approximately 70%) did not achieve this standard.



## 7

## RECOMMENDATION

**Non-small-cell lung cancer, not otherwise specified (NSCLC NOS) rates of more than 20% should be reviewed to ensure that best practice pathological diagnostic techniques including immunohistochemistry are being followed, in order that patients receive appropriate chemotherapy regimens. ALIGNS TO NICE QS7**

Nationally, 12% of NSCLC cases submitted were recorded to have a SNOMED code of M8046/3 (NSCLC NOS). Overall, 22 trusts (approximately 15%) did not achieve this standard.



## 8

## RECOMMENDATION

**At least 80% of patients are seen by a lung cancer nurse specialist (LCNS); at least 80% of patients should have an LCNS present at the time of diagnosis (note that these data are not available for Wales). ALIGNS TO NICE QS4**

Nationally, 78% of patients were recorded to have seen a specialist nurse, although data were missing in 13% of cases, so the true proportion may be higher. Overall, 51 trusts (approximately 35%) did not achieve this standard. We were unable to analyse the proportion having an LCNS present at diagnosis.



## 9

## RECOMMENDATION

**For patients undergoing bronchoscopy, at least 95% should have a CT scan prior to the procedure. ALIGNS TO NICE QS6**

Data collected in this transition year do not allow the analysis of this measure.



# 10

## RECOMMENDATION

**Surgical resection rates for NSCLC below the England and Wales average of 16% should be reviewed. Furthermore, for early-stage disease, rates below 52% 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). ALIGNS TO NICE QS8**

Nationally, 15.4% of patients with NSCLC were recorded to have had a surgical operation. Overall, 77 trusts (approximately 50%) did not achieve this standard. For patients with early-stage disease, 43% were recorded to have had surgery.



# 11

## RECOMMENDATION

**Active anticancer treatment rates below the England and Wales average of 60% should be reviewed. ALIGNS TO NICE QS8–13**

Nationally, 58% of patients were recorded to have had anticancer treatment (surgery, chemotherapy or radiotherapy). Overall, 77 trusts (approximately 50%) did not achieve this standard.



# 12

## RECOMMENDATION

**Chemotherapy rates for small-cell lung cancer below the England and Wales average of 70% should be reviewed. ALIGNS TO NICE QS13**

Nationally, 68% of patients with SCLC were recorded to have had chemotherapy. Overall, 62 trusts (approximately 40%) did not achieve this standard.



# 13

## RECOMMENDATION

**Chemotherapy rates for good PS (0–1) stage IIIB/IV NSCLC below the England and Wales average of 60% should be reviewed. ALIGNS TO NICE QS12**

Nationally, 58% of patients with good PS and stage IIIB/IV NSCLC were recorded to have had chemotherapy. Overall, 76 trusts (approximately 50%) did not achieve this standard.



## Standards of care for individual organisations

Data on key process and outcome measures ('headline indicators') relating to the care of patients with lung cancer in England, Wales and Guernsey are given in Table 1 by country, by SCN and by trust (key to codes is given in Appendix 1). These indicators have been chosen to benchmark against the recommendations made in the 2014 annual report, to align to national standards and guidelines, and to reflect the overall standard of care provided to patients. Similar data for Scotland are shown in Table 2.

### Interpretation of the data

In interpreting these figures, the population coverage and data field completeness must be considered and can be cross-referenced using the online data tables. Furthermore, some of the results as presented do not take into account the casemix of patients (for example, some organisations might legitimately claim that lower treatment rates reflect an older population, or patients presenting with more advanced disease) – where available, these unadjusted proportions should be evaluated alongside casemix-adjusted results.

For unadjusted proportions, we present a colour coding in the tables to reflect performance by organisations compared with the targets set in the 2014 annual report (2013 data) and local action plan. For Scotland, performance against national quality improvement standards is shown.

For casemix-adjusted data, we present an odds ratio (OR) and colour code the result based on its statistical significance. The confidence intervals for these will be available in the online reports.

The OR refers to the chance of a particular treatment or outcome happening after adjusting for casemix, including performance status, stage and age, when compared with the national average.

For example, if your organisation has a resection rate of 16% with an OR of 0.64 (less than 1), this suggests that your resection rate is lower than would be expected once the casemix of your patients has been taken into account. The colour coding will indicate whether this is statistically significant or likely to be a chance finding.

It is recommended that organisations perform local deep-dive audits into areas of lower performance to try to understand the reasons for this.

### Understanding variation

It is clear from these tables that there is considerable variation across organisations in the outputs measured by the audit (notwithstanding earlier comments regarding casemix adjustment of the data). This is apparent both at SCN and even more markedly at hospital level. In the latter case, some of the more extreme variation is explained by low numbers of cases or low-quality data, so a useful way of reporting the variation is the interquartile range (IQR), describing the range of values in the middle 50%. These data are supplied at the bottom of each table.

Table 1: Process, imaging and nursing measures for England, Wales and Guernsey (2014 data)

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>N44 London Cancer Alliance</b>					
<b>Whole network</b>	1,456	92.9 ✖	74.0 ✖	16.4 ✓	63.2 ✖
R1K99 London North West Healthcare NHS Trust (not Ealing)	113	77.0 ✖	60.2 ✖	7.8 ✓	56.6 ✖
RAS The Hillingdon Hospitals NHS FT	109	97.2 ✓	16.5 ✖	6.7 ✓	88.1 ✓
RAX Kingston Hospital NHS Trust	91	92.3 ✖	84.6 ✓	9.2 ✓	82.4 ✓
RFW West Middlesex University Hospital NHS Trust	92	90.2 ✖	71.7 ✖	21.4 ✖	33.7 ✖
RJ1 Guy's and St Thomas' NHS FT	149	100.0 ✓	95.3 ✓	11.5 ✓	54.4 ✖
RJ2 Lewisham Healthcare NHS Trust	297	99.3 ✓	65.7 ✖	36.3 ✖	56.2 ✖
RJ7 St George's Healthcare NHS Trust	127	59.1 ✖	85.0 ✓	11.7 ✓	52.8 ✖
RJZ King's College Hospital NHS FT	137	100.0 ✓	97.1 ✓	10.2 ✓	51.1 ✖
RPY The Royal Marsden NHS FT*	13	61.5 ✖	61.5 ✖	0.0 ✓	92.3 ✓
RQM Chelsea and Westminster Hospital NHS FT	60	100.0 ✓	85.0 ✓	21.7 ✖	83.3 ✓
RYJ Imperial College Healthcare NHS Trust	268	100.0 ✓	79.1 ✓	11.9 ✓	77.2 ✖
<b>N50 Cheshire and Merseyside</b>					
<b>Whole network</b>	1,350	92.9 ✖	67.6 ✖	11.6 ✓	73.9 ✖
LLCU Liverpool Lung Cancer Centre	376	93.1 ✖	78.2 ✓	8.5 ✓	95.7 ✓
RBL Wirral University Teaching Hospital NHS FT	304	98.0 ✓	60.5 ✖	8.8 ✓	90.5 ✓
REM Aintree University Hospital NHS FT	322	92.5 ✖	71.1 ✖	15.8 ✓	64.6 ✖
REN The Clatterbridge Cancer Centre NHS FT*	7	0.0 ✖	100.0 ✓	20.0 ✖	0.0 ✖
RWY Southport and Ormskirk Hospital NHS Trust	141	89.4 ✖	56.7 ✖	12.1 ✓	79.4 ✖
RWW Warrington and Halton Hospitals NHS FT	200	91.0 ✖	59.0 ✖	15.4 ✓	21.5 ✖
<b>N51 Greater Manchester, Lancashire and South Cumbria</b>					
<b>Whole network</b>	3,604	89.7 ✖	69.7 ✖	9.9 ✓	75.7 ✖
RBT Mid Cheshire Hospitals NHS FT	177	94.4 ✖	64.4 ✖	17.0 ✓	92.1 ✓
RBV The Christie NHS FT*	159	0.0 ✖	63.5 ✖	0.0 ✓	0.0 ✖
RJN East Cheshire NHS Trust	118	94.9 ✖	74.6 ✖	5.5 ✓	92.4 ✓

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>RM2</b> University Hospital of South Manchester NHS FT*	212	99.5 ✓	84.0 ✓	4.5 ✓	63.7 ✗
<b>RM3</b> Salford Royal NHS FT	194	96.4 ✓	72.2 ✗	12.7 ✓	82.5 ✓
<b>RMC</b> Bolton NHS FT	194	91.8 ✗	60.3 ✗	5.3 ✓	86.1 ✓
<b>RMP</b> Tameside Hospital NHS FT	165	89.1 ✗	70.3 ✗	11.8 ✓	81.2 ✓
<b>RRF</b> Wrightington, Wigan and Leigh NHS FT	219	95.0 ✓	72.6 ✗	6.8 ✓	87.7 ✓
<b>RTX</b> University Hospitals of Morecambe Bay NHS FT	250	88.8 ✗	50.8 ✗	13.7 ✓	16.8 ✗
<b>RW3</b> Central Manchester University Hospitals NHS FT	221	93.2 ✗	78.3 ✓	13.8 ✓	88.7 ✓
<b>RW6</b> Pennine Acute Hospitals NHS Trust	618	97.9 ✓	70.7 ✗	16.6 ✓	92.4 ✓
<b>RWJ</b> Stockport NHS FT	199	89.9 ✗	82.9 ✓	7.8 ✓	78.9 ✗
<b>RXL</b> Blackpool Teaching Hospitals NHS FT	254	91.3 ✗	72.0 ✗	6.4 ✓	66.1 ✗
<b>RXN</b> Lancashire Teaching Hospitals NHS FT	288	88.5 ✗	66.3 ✗	3.2 ✓	88.9 ✓
<b>RXR</b> East Lancashire Hospitals NHS Trust	336	96.7 ✓	66.1 ✗	11.4 ✓	83.3 ✓
<b>N52 Northern England</b>					
<b>Whole network</b>	2,246	92.7 ✗	65.1 ✗	15.8 ✓	85.0 ✓
<b>RLN</b> City Hospitals Sunderland NHS FT	290	97.2 ✓	68.3 ✗	16.9 ✓	90.3 ✓
<b>RNL</b> North Cumbria University Hospitals NHS Trust	238	96.6 ✓	70.6 ✗	13.8 ✓	90.3 ✓
<b>RR7</b> Gateshead Health NHS FT	240	92.1 ✗	60.8 ✗	18.2 ✓	86.7 ✓
<b>RTD</b> The Newcastle Upon Tyne Hospitals NHS FT	326	87.7 ✗	47.5 ✗	11.2 ✓	75.2 ✗
<b>RTF</b> Northumbria Healthcare NHS FT	374	84.2 ✗	68.7 ✗	23.8 ✗	76.2 ✗
<b>RWV</b> North Tees and Hartlepool NHS FT	323	94.4 ✗	64.7 ✗	17.1 ✓	94.7 ✓
<b>RXP</b> County Durham and Darlington NHS FT	455	97.1 ✓	72.3 ✗	9.7 ✓	85.3 ✓
<b>N53 Yorkshire and the Humber</b>					
<b>Whole network</b>	4,122	96.4 ✓	71.5 ✗	11.3 ✓	83.6 ✓
<b>RAE</b> Bradford Teaching Hospital NHS FT	228	98.7 ✓	100.0 ✓	4.0 ✓	95.6 ✓
<b>RCB55</b> York Hospital (Historic RCB)	188	100.0 ✓	71.8 ✗	17.0 ✓	97.3 ✓
<b>RCBCA</b> Scarborough General Hospital (Historic RCC)	131	98.5 ✓	67.2 ✗	2.7 ✓	93.9 ✓
<b>RCD</b> Harrogate and District NHS FT	117	100.0 ✓	67.5 ✗	11.5 ✓	87.2 ✓
<b>RCF</b> Airedale NHS FT	108	99.1 ✓	59.3 ✗	28.3 ✗	91.7 ✓



Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>RFF</b> Barnsley Hospital NHS FT	159	99.4 ✓	69.2 ✗	30.2 ✗	13.2 ✗
<b>RFR</b> The Rotherham NHS FT	194	96.9 ✓	68.6 ✗	1.1 ✓	94.8 ✓
<b>RFS</b> Chesterfield Royal Hospital NHS FT	212	56.6 ✗	57.1 ✗	10.2 ✓	83.0 ✓
<b>RHQ</b> Sheffield Teaching Hospitals NHS FT	446	100.0 ✓	69.7 ✗	7.5 ✓	79.6 ✗
<b>RJL</b> Northern Lincolnshire and Goole Hospitals NHS FT	328	98.5 ✓	57.0 ✗	14.3 ✓	90.5 ✓
<b>RP5</b> Doncaster and Bassetlaw Hospitals NHS FT	347	97.7 ✓	63.4 ✗	10.2 ✓	71.8 ✗
<b>RR8</b> Leeds Teaching Hospitals NHS Trust	500	99.4 ✓	79.0 ✓	11.0 ✓	86.6 ✓
<b>RWA</b> Hull and East Yorkshire Hospitals NHS Trust	397	97.0 ✓	61.7 ✗	30.8 ✗	83.9 ✓
<b>RWY</b> Calderdale and Huddersfield NHS FT	302	95.0 ✓	99.3 ✓	9.4 ✓	84.1 ✓
<b>RXF</b> Mid Yorkshire Hospitals NHS Trust	465	100.0 ✓	71.6 ✗	2.1 ✓	90.5 ✓
<b>N54 East of England</b>					
<b>Whole network</b>	3,023	92.6 ✗	67.8 ✗	12.1 ✓	72.2 ✗
<b>RAJ</b> Southend University Hospital NHS FT	233	88.8 ✗	76.4 ✓	10.5 ✓	0.4 ✗
<b>RC1</b> Bedford Hospital NHS Trust	112	98.2 ✓	75.9 ✓	19.1 ✓	87.5 ✓
<b>RC9</b> Luton and Dunstable Hospital NHS FT	129	100.0 ✓	58.1 ✗	9.4 ✓	79.8 ✗
<b>RCX</b> The Queen Elizabeth Hospital, King's Lynn, NHS FT	117	100.0 ✓	58.1 ✗	19.0 ✓	89.7 ✓
<b>RDD</b> Basildon and Thurrock University Hospitals NHS FT	212	89.2 ✗	60.8 ✗	7.1 ✓	78.3 ✗
<b>RDE</b> Colchester Hospital University NHS FT	232	85.3 ✗	37.9 ✗	21.9 ✗	47.8 ✗
<b>RGM</b> Papworth Hospital NHS FT*	16	100.0 ✓	81.3 ✓	0.0 ✓	100.0 ✓
<b>RGN</b> Peterborough and Stamford Hospitals NHS FT	171	100.0 ✓	80.7 ✓	23.5 ✗	92.4 ✓
<b>RGP</b> James Paget University Hospitals NHS FT	181	88.4 ✗	71.3 ✗	9.4 ✓	82.3 ✓
<b>RGQ</b> Ipswich Hospital NHS Trust	190	94.2 ✗	78.9 ✓	10.8 ✓	84.2 ✓
<b>RGR</b> West Suffolk NHS FT	137	100.0 ✓	65.0 ✗	18.3 ✓	90.5 ✓
<b>RGT</b> Cambridge University Hospitals NHS FT	186	100.0 ✓	84.9 ✓	5.9 ✓	97.3 ✓
<b>RM1</b> Norfolk and Norwich University Hospitals NHS FT	385	81.8 ✗	58.7 ✗	9.4 ✓	72.7 ✗
<b>RQ8</b> Mid Essex Hospital Services NHS Trust	195	95.4 ✓	75.4 ✓	11.2 ✓	48.2 ✗
<b>RQQ</b> Hinchingsbrooke Health Care NHS Trust	79	92.4 ✗	68.4 ✗	11.1 ✓	13.9 ✗
<b>RWG</b> West Hertfordshire Hospitals NHS Trust	229	98.7 ✓	72.9 ✗	6.0 ✓	98.3 ✓
<b>RWH</b> East and North Hertfordshire NHS Trust	219	91.3 ✗	70.8 ✗	17.1 ✓	92.2 ✓

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>N55 East Midlands</b>					
<b>Whole network</b>	2,038	94.1 ✖	66.7 ✖	11.3 ✓	81.0 ✓
RJF Burton Hospitals NHS FT	147	100.0 ✓	70.1 ✖	16.1 ✓	93.9 ✓
RK5 Sherwood Forest Hospitals NHS FT	258	95.0 ✓	75.6 ✓	15.1 ✓	95.0 ✓
RNQ Kettering General Hospital NHS FT	195	96.9 ✓	68.7 ✖	12.3 ✓	90.8 ✓
RNS Northampton General Hospital NHS Trust	174	97.7 ✓	51.7 ✖	13.2 ✓	90.2 ✓
RTG Derby Hospitals NHS FT	385	84.9 ✖	69.4 ✖	5.4 ✓	82.9 ✓
RWE University Hospitals of Leicester NHS Trust	460	95.7 ✓	54.3 ✖	15.6 ✓	58.5 ✖
RX1 Nottingham University Hospitals NHS Trust	419	95.2 ✓	76.4 ✓	8.1 ✓	82.3 ✓
<b>N56 West Midlands</b>					
<b>Whole network</b>	2,367	95.0 ✓	67.4 ✖	12.6 ✓	84.8 ✓
RBK Walsall Healthcare NHS Trust	119	95.0 ✓	73.1 ✖	5.6 ✓	0.8 ✖
RJC South Warwickshire NHS FT	118	97.5 ✓	72.9 ✖	21.5 ✖	83.1 ✓
RJE University Hospital of North Staffordshire NHS Trust	455	92.1 ✖	73.6 ✖	12.8 ✓	86.8 ✓
RKB University Hospitals Coventry and Warwickshire NHS Trust	292	99.3 ✓	71.9 ✖	10.0 ✓	90.8 ✓
RL4 The Royal Wolverhampton NHS Trust	211	97.2 ✓	63.0 ✖	10.7 ✓	96.2 ✓
RLQ Wye Valley NHS Trust	101	95.0 ✓	65.3 ✖	8.5 ✓	74.3 ✖
RNA The Dudley Group NHS FT	209	84.2 ✖	56.9 ✖	6.6 ✓	93.3 ✓
RR1 Heart of England NHS FT	405	95.1 ✓	65.4 ✖	9.6 ✓	92.6 ✓
RRK University Hospitals Birmingham NHS FT	215	99.5 ✓	63.3 ✖	9.4 ✓	93.5 ✓
RXK Sandwell and West Birmingham Hospitals NHS Trust	242	97.5 ✓	65.3 ✖	30.0 ✖	82.2 ✓
<b>N57 South West</b>					
<b>Whole network</b>	2,348	95.9 ✓	66.7 ✖	9.1 ✓	82.8 ✓
RA3 Weston Area Health NHS Trust	95	89.5 ✖	70.5 ✖	5.7 ✓	66.3 ✖
RA4 Yeovil District Hospital NHS FT	82	96.3 ✓	54.9 ✖	22.9 ✖	82.9 ✓
RA7 University Hospitals Bristol NHS FT	148	97.3 ✓	65.5 ✖	17.9 ✓	95.3 ✓
RA9 South Devon Healthcare NHS FT	178	97.2 ✓	62.9 ✖	0.0 ✓	75.8 ✖
RBA Taunton and Somerset NHS FT	198	91.9 ✖	62.6 ✖	5.9 ✓	82.8 ✓

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>RBZ</b> Northern Devon Healthcare NHS Trust	127	89.8 ✖	56.7 ✖	23.0 ✖	89.8 ✓
<b>RD1</b> Royal United Hospital Bath NHS Trust	224	96.0 ✓	47.8 ✖	5.8 ✓	87.9 ✓
<b>REF</b> Royal Cornwall Hospitals NHS Trust	232	95.7 ✓	82.8 ✓	5.4 ✓	94.8 ✓
<b>RH8</b> Royal Devon and Exeter NHS FT	204	98.5 ✓	77.5 ✓	2.2 ✓	98.0 ✓
<b>RK9</b> Plymouth Hospitals NHS Trust	305	98.0 ✓	54.8 ✖	20.3 ✖	79.0 ✖
<b>RTE</b> Gloucestershire Hospitals NHS FT	302	96.0 ✓	84.8 ✓	5.5 ✓	84.1 ✓
<b>RVJ</b> North Bristol NHS Trust	253	97.6 ✓	66.4 ✖	12.0 ✓	58.5 ✖
<b>N58 South East Coast</b>					
<b>Whole network</b>	2,304	94.6 ✖	67.0 ✖	11.4 ✓	70.6 ✖
<b>RA2</b> Royal Surrey County Hospital NHS Trust	73	78.1 ✖	57.5 ✖	15.2 ✓	64.4 ✖
<b>RDU</b> Frimley Park Hospital NHS FT	161	98.1 ✓	62.1 ✖	11.0 ✓	68.3 ✖
<b>RN7</b> Dartford and Gravesham NHS Trust	158	98.1 ✓	90.5 ✓	5.6 ✓	94.9 ✓
<b>RPA</b> Medway NHS FT	246	100.0 ✓	64.2 ✖	5.7 ✓	94.7 ✓
<b>RTK</b> Ashford and St Peter's Hospitals NHS FT	133	91.0 ✖	63.9 ✖	1.4 ✓	54.1 ✖
<b>RVV</b> East Kent Hospitals University NHS FT	447	89.3 ✖	62.2 ✖	13.9 ✓	25.5 ✖
<b>RWF</b> Maidstone and Tunbridge Wells NHS Trust	241	95.0 ✓	81.3 ✓	12.2 ✓	83.4 ✓
<b>RXC</b> East Sussex Healthcare NHS Trust	283	94.3 ✖	61.5 ✖	16.0 ✓	73.1 ✖
<b>RXH</b> Brighton and Sussex University Hospitals NHS Trust	244	99.6 ✓	66.0 ✖	16.2 ✓	87.3 ✓
<b>RYR16</b> Western Sussex Hospitals NHS Trust (RYR16)	147	98.6 ✓	71.4 ✖	8.6 ✓	94.6 ✓
<b>RYR18</b> Western Sussex Hospitals NHS Trust (RYR18)	171	93.0 ✖	59.6 ✖	12.8 ✓	82.5 ✓
<b>N59 Thames Valley</b>					
<b>Whole network</b>	889	89.5 ✖	78.9 ✓	22.5 ✖	79.6 ✖
<b>RD8</b> Milton Keynes Hospital NHS FT	64	95.3 ✓	84.4 ✓	16.7 ✓	89.1 ✓
<b>RHW</b> Royal Berkshire NHS FT	168	99.4 ✓	79.8 ✓	14.4 ✓	90.5 ✓
<b>RN3</b> Great Western Hospitals NHS FT	193	99.0 ✓	75.1 ✓	21.9 ✖	90.7 ✓
<b>RTH</b> Oxford University Hospitals NHS Trust	305	96.1 ✓	76.1 ✓	20.9 ✖	63.3 ✖
<b>RXQ</b> Buckinghamshire Healthcare NHS Trust	159	52.8 ✖	85.5 ✓	36.2 ✖	82.4 ✓

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>N60 Wessex</b>					
<b>Whole network</b>	1,433	93.1 ✖	72.1 ✖	15.7 ✓	62.4 ✖
R1F Isle of Wight NHS Trust	102	98.0 ✓	85.3 ✓	27.6 ✖	95.1 ✓
RBD Dorset County Hospital NHS FT	99	93.9 ✖	58.6 ✖	18.2 ✓	83.8 ✓
RD3 Poole Hospital NHS FT	126	94.4 ✖	66.7 ✖	6.7 ✓	77.8 ✖
RDZ Royal Bournemouth and Christchurch Hospitals NHS FT	201	96.0 ✓	51.7 ✖	16.5 ✓	82.1 ✓
RHM University Hospital Southampton NHS FT	312	80.8 ✖	81.7 ✓	11.5 ✓	0.6 ✖
RHU Portsmouth Hospitals NHS Trust	317	97.5 ✓	82.3 ✓	19.0 ✓	70.7 ✖
RN506 Hampshire Hospitals NHS FT (RN5)	100	95.0 ✓	54.0 ✖	16.2 ✓	82.0 ✓
RN541 Hampshire Hospitals NHS FT (RN1)	84	96.4 ✓	73.8 ✖	22.6 ✖	83.3 ✓
RNZ Salisbury NHS FT	92	100.0 ✓	73.9 ✖	5.2 ✓	79.3 ✖
<b>N61 London Cancer</b>					
<b>Whole network</b>	815	96.2 ✓	68.8 ✖	10.5 ✓	82.0 ✓
R1HKH Barts Health NHS Trust (Whipps Cross)	131	98.5 ✓	70.2 ✖	11.8 ✓	69.5 ✖
R1HM0 Barts Health NHS Trust (St Barts)	132	99.2 ✓	75.8 ✓	7.1 ✓	83.3 ✓
R1HNH Barts Health NHS Trust (Newham)	75	94.7 ✖	53.3 ✖	2.8 ✓	64.0 ✖
RAL Royal Free London NHS FT	113	94.7 ✖	42.5 ✖	0.0 ✓	93.8 ✓
RF4 Barking, Havering and Redbridge University Hospitals NHS Trust	89	80.9 ✖	64.0 ✖	12.5 ✓	78.7 ✖
RQW The Princess Alexandra Hospital NHS Trust	188	100.0 ✓	83.5 ✓	10.2 ✓	91.5 ✓
RQX Homerton University Hospital NHS FT	87	98.9 ✓	77.0 ✓	24.6 ✖	81.6 ✓
<b>N95 South Wales Regional Cancer Network</b>					
<b>Whole network</b>	1,499	99.5 ✓	72.4 ✖	9.2 ✓	85.7 ✓
7A2AJ Bronglais General Hospital	46	100.0 ✓	67.4 ✖	37.0 ✖	39.1 ✖
7A2AL Prince Philip Hospital	166	100.0 ✓	87.3 ✓	4.1 ✓	95.8 ✓
7A2BL Withybush General Hospital	82	100.0 ✓	78.0 ✓	9.1 ✓	81.7 ✓
7A3B7 Princess of Wales Hospital	104	100.0 ✓	52.9 ✖	20.5 ✖	76.0 ✖
7A3C7 Morriston Hospital	244	100.0 ✓	73.8 ✖	7.6 ✓	89.8 ✓
7A4C1 University Hospital Llandough	262	100.0 ✓	69.8 ✖	6.5 ✓	88.9 ✓
7A5B1 The Royal Glamorgan Hospital	121	99.2 ✓	71.9 ✖	11.5 ✓	87.6 ✓

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
7A5B3 Prince Charles Hospital Site	131	100.0 ✓	77.9 ✓	4.8 ✓	81.7 ✓
7A6AM Nevill Hall Hospital	100	100.0 ✓	79.0 ✓	4.4 ✓	99.0 ✓
7A6AR Royal Gwent Hospital	243	97.5 ✓	65.8 ✗	14.0 ✓	81.1 ✓
<b>N96 North Wales Regional Cancer Network</b>					
<b>Whole Network</b>	<b>493</b>	<b>99.8 ✓</b>	<b>74.2 ✗</b>	<b>8.2 ✓</b>	<b>95.1 ✓</b>
7A1A1 Ysbyty Glan Clwyd	172	100.0 ✓	82.6 ✓	9.8 ✓	98.8 ✓
7A1A4 Wrexham Maelor Hospital	168	99.4 ✓	74.4 ✗	6.2 ✓	94.0 ✓
7A1AU Ysbyty Gwynedd	153	100.0 ✓	64.7 ✗	8.2 ✓	92.2 ✓
England total	27,995	93.6 ✗	69.0 ✗	12.4 ✓	77.5 ✗
Wales total	1,992	99.6 ✓	72.9 ✗	9.0 ✓	88.0 ✓
Guernsey total	39	100.0 ✓	71.8 ✗	0.0 ✓	46.2 ✗
<b>Range: network</b>					
Min	–	90	65	0	46
LQ	–	93	67	10	71
Median	–	94	69	11	80
UQ	–	96	72	14	84
Max	–	100	79	23	95
<b>Range: trust</b>					
Min	–	0	17	0	0
LQ	–	92	62	7	74
Median	–	97	70	11	83
UQ	–	99	76	17	91
Max	–	100	100	37	100

\*This is a tertiary trust that provides treatment for lung cancer patients, but where patients are not usually first seen. The cases may have been incorrectly allocated to this trust, and instead first seen at another trust in the region. The data should be interpreted with caution.

✓ equal to or exceeds level suggested in NLCA annual report 2014 (2013 data)

✗ below level suggested in NLCA annual report 2014 (2013 data)

Table 2: Process, imaging and nursing measures for Scotland (2014 data)

Place first seen	Actual number	Discussed at MDT (%)	Pathological diagnosis (%)	NSCLC NOS rate (%)	Patient seen by nurse specialist (%)
<b>SCAN</b>					
<b>Whole network*</b>	575*	92.0%	83.0%	8.3%	84.5%
Borders	89	97.7% ✓	86.0% ✓	8.9% ✓	91.0%
Dumfries and Galloway	153	81.6% ✗	89.2% ✓	11.6% ✓	77.1%
Fife	333	95.9% ✓	79.8% ✓	8.3% ✓	86.2%
Lothian	–	–	–	–	–
<b>WoSCAN</b>					
<b>Whole network</b>	2631	95.1% ✓	86.2% ✓	10.3% ✓	86.7%
Ayrshire and Arran	366	93.5% ✗	88.6% ✓	8.8% ✓	91.0%
Clyde	438	92.6% ✗	84.2% ✓	10.3% ✓	79.9%
Forth Valley	248	95.5% ✓	91.2% ✓	12.5% ✓	98.4%
Laurenshire	501	95.2% ✓	91.5% ✓	10.0% ✓	87.8%
North Glasgow	658	96.9% ✓	82.6% ✓	10.6% ✓	84.3%
South Glasgow	420	95.8% ✓	82.8% ✓	9.9% ✓	85.5%
<b>NoSCAN</b>					
<b>Whole network</b>	1,027	90.9% ✗	89.8% ✓	9.7% ✓	77.8%
Grampian	425	87.9% ✗	91.5% ✓	8.5% ✓	61.5%
Orkney	1		Results suppressed owing to small numbers		
Shetland	10	80.0% ✗	100% ✓	12.5% ✓	100%
Highland	204	85.6% ✗	92.8% ✓	6.3% ✓	87.3%
Western Isles	19	73.7% ✗	100% ✓	15.4% ✓	84.2%
Tayside	368	98.6% ✓	86.0% ✓	12.7% ✓	94.0%
<b>Scotland total</b>	<b>4,233*</b>	93.6% ✗	86.6% ✓	10.0% ✓	84.2%

\*These figures and percentages represent totals from SCAN health boards: NHS Borders, NHS Dumfries and Galloway, NHS Fife; but do not include NHS Lothian.

NHS Lothian data are not available at this time owing to staffing issues within SCAN Audit and will be available in due course. Estimated case ascertainment for NHS Lothian based on 5-

year average would be expected to be circa 730 total cases submitted, making SCAN's total closer to circa 1,300 patients, rather than 596 as shown above, and the Scotland total closer to circa 4,960.	
✓ equal to or exceeds level suggested in QPI	
✗ below level suggested in QPI	



Table 3: Treatment measures for England, Wales and Guernsey (2014 data)

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	SCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
<b>N44 London Cancer Alliance</b>								
<b>Whole network</b>								
R1K99 London North West Healthcare NHS Trust (not Ealing)	67.2 ✓	1.49 ↑	22.2 ✓	1.77 ↑	67.3 ✓	1.46 ↑	72.2 ✓	1.39 →
RAS The Hillingdon Hospitals NHS FT	83.2 ✓	4.01 ↑	45.0 ✓	4.84 ↑	44.4 ✗	0.58 →	66.7 ✗	2.15 →
RAX Kingston Hospital NHS Trust	21.1 ✗	0.19 ↓	1.9 ✗	0.15 ↓	31.6 ✗	0.28 ↓	100.0 ✓	
RFW West Middlesex University Hospital NHS Trust	56.0 ✗	0.95 →	2.5 ✗	0.08 ↓	62.5 ✓	1.08 →	80.0 ✓	2.47 →
RJ1 Guy's and St Thomas' NHS FT	72.8 ✓	2.78 ↑	23.2 ✓	3.74 ↓	66.7 ✓	1.4 →	80.0 ✓	3.60 →
RJ2 Lewisham Healthcare NHS Trust	82.6 ✓	2.66 ↑	22.5 ✓	0.90 →	91.9 ✓	8.9 ↑	87.5 ✓	3.50 →
RJ7 St George's Healthcare NHS Trust	69.7 ✓	2.02 ↑	40.7 ✓	9.05 ↑	53.7 ✗	0.9 →	51.9 ✗	0.81 →
RJZ King's College Hospital NHS FT	54.3 ✗	0.73 →	14.2 ✗	0.64 →	73.7 ✓	2.8 →	83.3 ✓	2.27 →
RPY The Royal Marsden NHS FT*	84.7 ✓	2.81 ↑	18.0 ✓	1.18 →	80.5 ✓	3.0 ↑	57.1 ✗	0.48 →
RQM Chelsea and Westminster Hospital NHS FT	76.9 ✓	1.63 →	0.0 ✗		42.9 ✗	0.4 →	100.0 ✓	
RYJ Imperial College Healthcare NHS Trust	53.3 ✗	1.08 →	3.6 ✗	0.33 →	47.4 ✗	0.7 →	80.0 ✓	1.01 →
	69.4 ✓	1.46 ↑	17.4 ✓	0.98 →	74.6 ✓	2.0 ↑	76.0 ✓	1.21 →
<b>N50 Cheshire and Merseyside</b>								
<b>Whole network</b>								
LLCU Liverpool Lung Cancer Centre	63.7 ✓	1.34 ↑	22.7 ✓	1.76 ↑	55.9 ✗	0.88 →	65.1 ✗	0.70 ↓
RBL Wirral University Teaching Hospital NHS FT	72.9 ✓	2.51 ↑	24.5 ✓	1.80 ↑	57.7 ✗	1.04 →	70.9 ✓	1.16 →
REM Aintree University Hospital NHS FT	62.8 ✓	1.51 ↑	19.6 ✓	1.76 ↑	61.5 ✓	1.15 →	65.2 ✗	0.86 →
REN The Clatterbridge Cancer Centre NHS FT*	64.6 ✓	1.14 →	28.6 ✓	2.30 ↑	58.2 ✗	0.99 →	58.3 ✗	0.37 ↓
	85.7 ✓	5.32 →	40.0 ✓	2.37 →			100.0 ✓	
RVY Southport and Ormskirk Hospital NHS Trust	51.1 ✗	1.14 →	11.0 ✗	0.74 →	53.8 ✗	0.9 →	58.3 ✗	0.56 →
RWW Warrington and Halton Hospitals NHS FT	54.5 ✗	0.56 ↓	22.5 ✓	1.66 ↑	43.2 ✗	0.5 ↓	64.0 ✗	0.55 →
<b>N51 Greater Manchester, Lancashire and South Cumbria</b>								
<b>Whole network</b>								
RBT Mid Cheshire Hospitals NHS FT	59.4 ✗	1.16 ↑	14.3 ✗	0.84 ↓	62.8 ✓	1.25 ↑	70.8 ✓	1.31 ↑
RBV The Christie NHS FT*	63.8 ✓	1.47 →	19.1 ✓	1.42 →	54.5 ✗	0.81 →	68.4 ✗	1.68 →
	67.3 ✓	1.80 ↑	0.0 ✗		54.5 ✗	0.75 →	73.7 ✓	1.90 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	SCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
RJN East Cheshire NHS Trust	67.8 ✓	2.14 ↑	24.3 ✓	2.12 ↑	68.4 ✓	1.8 →	69.2 ✗	1.30 →
RM2 University Hospital of South Manchester NHS FT*	73.1 ✓	2.22 ↑	22.9 ✓	1.48 →	62.2 ✓	1.3 →	81.8 ✓	2.45 →
RM3 Salford Royal NHS FT	49.5 ✗	0.82 →	15.9 ✗	1.23 →	71.4 ✓	1.3 →	65.4 ✗	1.13 →
RMC Bolton NHS FT	54.6 ✗	1.23 →	13.3 ✗	0.94 →	62.1 ✓	1.1 →	60.0 ✗	1.13 →
RMP Tameside Hospital NHS FT	59.4 ✗	1.62 ↑	14.1 ✗	1.12 →	71.4 ✓	1.8 →	71.4 ✓	2.59 ↑
RRF Warrington, Wigan and Leigh NHS FT	58.0 ✗	1.06 →	21.8 ✓	1.60 ↑	72.2 ✓	1.6 →	55.3 ✗	0.58 →
RTX University Hospitals of Morecambe Bay NHS FT	45.2 ✗	0.52 ↓	1.8 ✗	0.07 ↓	62.0 ✓	1.2 →	90.9 ✓	3.52 →
RW3 Central Manchester University Hospitals NHS FT	63.8 ✓	1.26 →	15.5 ✗	0.89 →	40.5 ✗	0.5 ↓	62.1 ✗	0.83 →
RW6 Pennine Acute Hospitals NHS Trust	58.4 ✗	1.14 →	18.3 ✓	1.37 ↑	50.6 ✗	0.8 →	70.1 ✓	1.23 →
RWJ Stockport NHS FT	71.4 ✓	1.76 ↑	24.6 ✓	1.70 ↑	61.3 ✓	1.2 →	82.6	1.90 →
RXL Blackpool Teaching Hospitals NHS FT	63.4 ✓	1.35 →	14.5 ✗	0.94 →	79.2 ✓	3.4 ↑	63.0 ✗	0.84 →
RXN Lancashire Teaching Hospitals NHS FT	48.6 ✗	0.64 ↓	2.0 ✗	0.06 ↓	65.3 ✓	1.4 →	85.3 ✓	3.35 ↑
RXR East Lancashire Hospitals NHS Trust	59.8 ✗	1.07 →	11.1 ✗	0.67 →	73.3 ✓	2.0 ↑	71.4 ✓	0.75 →
N52 Northern England								
Whole network	61.6 ✓	1.35 ↑	14.0 ✗	1.02 →	67.4 ✓	1.56 ↑	73.7 ✓	1.40 ↑
RLN City Hospitals Sunderland NHS FT	64.5 ✓	1.59 ↑	15.4 ✗	1.50 →	66.7 ✓	1.7 →	76.7 ✓	1.26 →
RNL North Cumbria University Hospitals NHS Trust	59.2 ✗	1.11 →	17.3 ✓	1.65 ↑	65.4 ✓	1.7 →	64.3 ✗	0.89 →
RR7 Gateshead Health NHS FT	46.7 ✗	0.84 →	10.7 ✗	0.82 →	51.5 ✗	0.7 →	60.9 ✗	0.96 →
RTD The Newcastle Upon Tyne Hospitals NHS FT	61.3 ✓	1.36 ↑	11.4 ✗	0.82 →	85.3 ✓	4.2 ↑	77.8 ✓	1.58 →
RTF Northumbria Healthcare NHS FT	60.4 ✓	1.39 ↑	13.6 ✗	0.98 →	73.0 ✓	2.3 ↑	73.2 ✓	1.71 →
RWV North Tees and Hartlepool NHS FT	65.9 ✓	1.48 ↑	11.7 ✗	0.55 ↓	57.6 ✗	0.9 →	84.8 ✓	3.59 ↑
RXP County Durham and Darlington NHS FT	66.8 ✓	1.60 ↑	17.4 ✓	1.29 →	64.5 ✓	1.3 →	73.1 ✓	1.24 →
N53 Yorkshire and the Humber								
Whole network	47.1 ✗	0.55 ↓	12.4 ✗	0.68 ↓	49.6 ✗	0.69 ↓	57.9 ✗	0.53 ↓
RAE Bradford Teaching Hospital NHS FT	69.7 ✓	1.32 →	16.7 ✓	0.85 →	63.6 ✓	1.24 →	80.0 ✓	1.09 →
RCB55 York Hospital (Historic RCB)	61.7 ✓	1.14 →	19.5 ✓	1.14 →	60.7 ✓	1.23 →	70.4 ✓	1.03 →
RCBCA Scarborough General Hospital (Historic RCC)	57.3 ✗	1.04 →	12.6 ✗	0.76 →	36.4 ✗	0.39 ↓	83.3 ✓	2.14 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	SCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
RCD Harrogate and District NHS FT	60.7 ✓	2.04 ↑	15.2 ✗	1.26 →	90.0 ✓	10.70 →	72.2 ✓	2.10 →
RCF Airedale NHS FT	57.4 ✗	1.10 →	13.1 ✗	0.81 →	50.0 ✗	0.82 →	77.8 ✓	1.40 →
RFF Barnsley Hospital NHS FT	61.6 ✓	1.57 ↑	12.1 ✗	1.00 →	69.0 ✓	1.6 →	84.2 ✓	3.39 →
RFR The Rotherham NHS FT	9.3 ✗	0.04 ↓	2.6 ✗	0.10 ↓	4.0 ✗	0.0 ↓	17.5 ✗	0.08 ↓
RFS Chesterfield Royal Hospital NHS FT	42.0 ✗	0.44 ↓	7.4 ✗	0.43 ↓	55.8 ✗	1.0 →	85.7 ✓	1.24 →
RHQ Sheffield Teaching Hospitals NHS FT	0.0 ✗		0.0 ✗		0.0 ✗		0.0 ✗	
RJL Northern Lincolnshire and Goole Hospitals NHS FT	57.6 ✗	0.82 →	16.7 ✓	0.89 →	60.7 ✓	1.2 →	72.1 ✓	0.81 →
RP5 Doncaster and Bassetlaw Hospitals NHS FT	0.6 ✗	0.00 ↓	0.0 ✗		1.4 ✗	0.0 ↓	0.0 ✗	
RR8 Leeds Teaching Hospitals NHS Trust	73.0 ✓	3.09 ↑	21.1 ✓	1.37 ↑	82.5 ✓	3.2 ↑	65.5 ✗	1.14 →
RWA Hull and East Yorkshire Hospitals NHS Trust	61.7 ✓	1.13 →	13.5 ✗	0.92 →	56.8 ✗	1.0 →	71.4 ✓	1.03 →
RWY Calderdale and Huddersfield NHS FT	59.9 ✗	1.06 →	16.7 ✓	1.39 →	52.8 ✗	0.9 →	85.0 ✓	1.76 →
RXF Mid Yorkshire Hospitals NHS Trust	58.5 ✗	1.04 →	18.3 ✓	1.66 ↑	66.3 ✓	1.4 →	71.4 ✓	1.30 →
N54 East of England								
Whole network								
RAJ Southend University Hospital NHS FT	60.8 ✓	1.16 ↑	14.0 ✗	0.82 ↓	57.5 ✗	1.01 →	66.6 ✗	1.01 →
RC1 Bedford Hospital NHS Trust	58.4 ✗	1.31 →	12.1 ✗	0.94 →	57.8 ✗	0.84 →	52.4 ✗	0.7 →
RC9 Luton and Dunstable Hospital NHS FT	64.3 ✓	1.07 →	23.2 ✓	1.29 →	44.0 ✗	0.56 →	40.0 ✗	0.30 ↓
RCX The Queen Elizabeth Hospital, King's Lynn, NHS FT	34.1 ✗	0.28 ↓	3.4 ✗	0.12 ↓	48.0 ✗	0.64 →	63.6 ✗	0.62 →
RDD Basildon and Thurrock University Hospitals NHS FT	46.2 ✗	0.48 ↓	11.2 ✗	0.65 →	41.2 ✗	0.61 →	77.8 ✓	0.81 →
RDE Colchester Hospital NHS FT	51.4 ✗	0.66 ↓	18.7 ✓	1.18 →	62.2 ✓	1.30 →	52.0 ✗	0.59 →
RGM Papworth Hospital NHS FT*	77.2 ✓	3.11 ↑	13.5 ✗	0.84 →	51.6 ✗	0.79 →	69.6 ✗	1.34 →
RGN Papworth Hospital NHS FT	81.3 ✓	3.00 →	57.1 ✓	4.41 →	0.0 ✗		100.0 ✓	
RGP Peterborough and Stamford Hospitals NHS FT	69.0 ✓	1.69 ↑	19.1 ✓	1.41 →	51.3 ✗	0.7 →	72.2 ✓	0.87 →
RGP James Paget University Hospitals NHS FT	53.0 ✗	0.70 ↓	3.6 ✗	0.11 ↓	61.9 ✓	1.3 →	83.3 ✓	3.85 →
RGQ Ipswich Hospital NHS Trust	74.7 ✓	3.57 ↑	8.8 ✗	1.22 →	76.7 ✓	2.4 ↑	74.1 ✓	2.14 →
RGR West Suffolk NHS FT	48.9 ✗	0.56 ↓	16.7 ✓	1.32 →	50.0 ✗	0.7 →	82.4 ✓	1.71 →
RGT Cambridge University Hospitals NHS FT	66.7 ✓	1.42 ↑	26.2 ✓	1.86 ↑	73.9 ✓	2.3 ↑	78.6 ✓	2.29 →
RM1 Norfolk and Norwich University Hospitals NHS FT	68.3 ✓	1.28 ↑	12.1 ✗	0.46 ↓	61.3 ✓	1.2 →	77.8 ✓	1.31 →
RQ8 Mid Essex Hospital Services NHS Trust	65.6 ✓	1.79 ↑	13.9 ✗	0.93 →	51.4 ✗	0.8 →	47.4 ✗	0.56 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	NSCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
RQQ Hinchingsbrooke Health Care NHS Trust	69.6 ✓	1.76 →	15.7 ✗	0.96 →	63.2 ✓	1.8 →	88.9 ✓	5.32 →
RWG West Hertfordshire Hospitals NHS Trust	48.9 ✗	0.78 →	9.4 ✗	0.69 →	42.9 ✗	0.5 →	47.1 ✗	0.36 →
RWH East and North Hertfordshire NHS Trust	58.0 ✗	1.10 →	18.0 ✓	1.44 →	63.8 ✓	1.3 →	68.2 ✗	1.35 →
N55 East Midlands								
Whole network	55.8 ✗	0.95 →	15.9 →	1.08 →	53.3 ✗	0.85 →	70.2 ✓	1.44 →
RJF Burton Hospitals NHS FT	51.7 ✗	0.68	19.1 ✓	1.26	63.0 ✓	1.4 →	73.3 ✓	0.97 →
RK5 Sherwood Forest Hospitals NHS FT	46.1 ✗	0.62 →	14.8 ✗	1.16 →	39.6 ✗	0.5 →	72.3 ✓	2.34 →
RNQ Kettering General Hospital NHS FT	52.3 ✗	0.92 →	16.5 ✓	0.99 →	80.0 ✓	2.5 →	52.6 ✗	0.83 →
RNS Northampton General Hospital NHS Trust	58.0 ✗	1.47 →	14.5 ✗	1.69 →	56.7 ✗	0.8 →	56.3 ✗	0.79 →
RTG Derby Hospitals NHS FT	53.0 ✗	0.63 →	22.5 ✓	1.74 →	47.8 ✗	0.7 →	75.0 ✓	1.43 →
RWE University Hospitals of Leicester NHS Trust	56.7 ✗	1.19 →	10.2 ✗	0.64 →	51.3 ✗	0.8 →	64.7 ✗	1.14 →
RX1 Nottingham University Hospitals NHS Trust	65.6 ✓	1.36 →	16.2 ✓	0.90 →	55.8 ✗	1.0 →	78.7 ✓	1.91 →
N56 West Midlands								
Whole network	55.3 ✗	0.98 →	15.4 ✗	1.23 →	62.6 ✓	1.18 →	72.9 ✓	1.36 →
RBK Walsall Healthcare NHS Trust	49.6 ✗	0.64 →	5.8 ✗	0.23 →	66.7 ✓	1.35 →	66.7 ✗	0.91 →
RJC South Warwickshire NHS FT	55.1 ✗	1.19 →	16.8 ✓	0.64 →	66.7 ✓	2.5 →	70.6 ✓	2.11 →
RJE University Hospital of North Staffordshire NHS Trust	61.3 ✓	1.21 →	24.1 ✓	2.72 →	71.2 ✓	1.9 →	70.4 ✓	1.26 →
RKB University Hospitals Coventry and Warwickshire NHS Trust	61.3 ✓	1.40 →	14.3 ✗	1.35 →	54.5 ✗	0.7 →	83.9 ✓	2.05 →
RL4 The Royal Wolverhampton NHS Trust	51.7 ✗	0.81 →	13.2 ✗	1.16 →	44.4 ✗	0.6 →	74.1 ✓	1.27 →
RLQ Wye Valley NHS Trust	55.4 ✗	0.97 →	9.6 ✗	0.64 →	52.2 ✗	0.7 →	42.9 ✗	0.21 →
RNA The Dudley Group NHS FT	55.5 ✗	0.94 →	12.1 ✗	1.01 →	73.2 ✓	2.1 →	64.0 ✗	0.83 →
RR1 Heart of England NHS FT	44.2 ✗	0.60 →	15.1 ✗	1.47 →	59.1 ✗	1.1 →	77.3 ✓	1.85 →
RRK University Hospitals Birmingham NHS FT	58.6 ✗	1.37 →	13.3 ✗	0.93 →	75.7 ✓	2.6 →	66.7 ✗	0.84 →
RXK Sandwell and West Birmingham Hospitals NHS Trust	57.9 ✗	0.97 →	15.4 ✗	1.00 →	62.5 ✓	1.2 →	82.1 ✓	2.55 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	NSCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
<b>N57 South West</b>								
<b>Whole network</b>	64.1 ✓	1.32 ↑	17.4 ✓	1.17	61.0 ✓	1.27 ↑	73.0 ✓	1.27 →
RA3 Weston Area Health NHS Trust	64.2 ✓	1.37 →	22.0 ✓	1.68 →	82.4 ✓	3.11 →	72.7 ✓	1.17 →
RA4 Yeovil District Hospital NHS FT	57.3 ✗	1.09 →	17.8 ✓	0.91 →	75.0 ✓	3.52 ↑	85.7 ✓	3.23 →
RA7 University Hospitals Bristol NHS FT	64.9 ✓	1.39 →	13.2 ✗	0.98 →	74.4 ✓	2.22 ↑	81.3 ✓	2.19 →
RA9 South Devon Healthcare NHS FT	61.8 ✓	1.25 →	11.5 ✗	0.66 →	59.5 ✗	1.26 →	72.2 ✓	1.28 →
RBA Taunton and Somerset NHS FT	68.2 ✓	1.77 ↑	20.5 ✓	2.17 ↑	78.7 ✓	3.49 ↑	81.8 ✓	1.97 →
RBZ Northern Devon Healthcare NHS Trust	55.9 ✗	0.95 →	12.1 ✗	0.67 →	61.9 ✓	1.20 →	80.0 ✓	2.48 →
RD1 Royal United Hospital Bath NHS Trust	63.4 ✓	0.97 →	18.7 ✓	1.07 →	51.0 ✗	0.86 →	75.0 ✓	0.89 →
REF Royal Cornwall Hospitals NHS Trust	82.3 ✓	5.94 ↑	13.8 ✗	1.01 →	71.8 ✓	1.48 →	81.0 ✓	2.96 ↑
RH8 Royal Devon and Exeter NHS FT	73.5 ✓	2.22 ↑	17.3 ✓	1.16 →	57.4 ✗	1.4 →	82.4 ✓	2.17 →
RK9 Plymouth Hospitals NHS Trust	57.4 ✗	0.92 →	17.5 ✓	0.99 →	58.7 ✗	1.1 →	56.7 ✗	0.53 →
RTE Gloucestershire Hospitals NHS FT	65.9 ✓	1.28 →	18.6 ✓	1.34 →	48.5 ✗	0.7 →	61.1 ✗	0.58 →
RVJ North Bristol NHS Trust	51.0 ✗	0.65 ↓	22.6 ✓	1.75 ↑	52.9 ✗	0.9 →	68.8 ✗	1.08 →
<b>N58 South East Coast</b>								
<b>Whole network</b>	50.3 ✗	0.67 ↓	9.8 ✗	0.56 ↓	48.1 ✗	0.67 ↓	59.6 ✗	0.68 ↓
RA2 Royal Surrey County Hospital NHS Trust	47.9 ✗	0.86 →	6.3 ✗	0.35 ↓	55.6 ✗	1.10 →	25.0 ✗	0.14 ↓
RDU Frimley Park Hospital NHS FT	52.2 ✗	0.86 →	19.6 ✓	1.59 →	68.0 ✓	1.78 →	60.0 ✗	0.63 →
RN7 Dartford and Gravesham NHS Trust	68.4 ✓	1.65 ↑	13.6 ✗	0.83 →	56.8 ✗	0.8 →	64.7 ✗	0.99 →
RPA Medway NHS FT	45.9 ✗	0.70 ↓	7.6 ✗	0.57 ↓	40.0 ✗	0.4 ↓	58.8 ✗	0.85 →
RTK Ashford and St Peter's Hospitals NHS FT	31.6 ✗	0.25 ↓	6.0 ✗	0.28 ↓	16.7 ✗	0.2 ↓	56.3 ✗	0.42 →
RVV East Kent Hospitals University NHS FT	41.2 ✗	0.39 ↓	0.5 ✗	0.02 ↓	30.8 ✗	0.3 ↓	45.8 ✗	0.40 →
RWF Maidstone and Tunbridge Wells NHS Trust	66.0 ✓	1.19 →	16.9 ✓	1.37 →	55.9 ✗	1.0 →	62.2 ✗	0.54 →
RXC East Sussex Healthcare NHS Trust	48.8 ✗	0.73 ↓	7.8 ✗	0.44 ↓	64.3 ✓	1.7 →	59.5 ✗	0.69 →
RXH Brighton and Sussex University Hospitals NHS Trust	49.6 ✗	0.89 →	14.2 ✗	1.42 →	56.3 ✗	0.9 →	73.9 ✓	2.85 →
RYR16 Western Sussex Hospitals NHS Trust (RYR16)	58.5 ✗	0.68 ↓	16.3 ✓	0.88 →	56.8 ✗	1.0 →	50.0 ✗	0.42 →
RYR18 Western Sussex Hospitals NHS Trust (RYR18)	52.0 ✗	0.54 ↓	12.2 ✗	0.75 →	52.1 ✗	0.75 →	85.7 ✓	1.80 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	SCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
<b>N59 Thames Valley</b>								
<b>Whole network</b>	63.9 ✓	1.26 ↑	24.4 ✓	1.99 ↑	53.7 ✗	0.91 →	71.6 ✓	1.28 →
<b>RD8</b> Milton Keynes Hospital NHS FT	79.7 ✓	1.63 →	39.7 ✓	2.38 ↑	33.3 ✗	0.25 →	83.3 ✓	0.84 →
<b>RHW</b> Royal Berkshire NHS FT	61.9 ✓	1.27 →	22.8 ✓	2.75 ↑	46.9 ✗	0.6 →	72.2 ✓	1.65 →
<b>RN3</b> Great Western Hospitals NHS FT	58.5 ✗	1.01 →	14.8 ✗	1.23 →	63.4 ✓	1.3 →	71.4 ✓	1.07 →
<b>RTH</b> Oxford University Hospitals NHS Trust	64.9 ✓	1.20 →	28.1 ✓	2.06 ↑	53.2 ✗	0.9 →	78.3 ✓	1.43 →
<b>RXQ</b> Buckinghamshire Healthcare NHS Trust	64.2 ✓	1.64 ↑	23.7 ✓	1.84 ↑	50.0 ✗	1.0 →	60.0 ✗	1.30 →
<b>N60 Wessex</b>								
<b>Whole network</b>	57.6 ✗	0.78 ↓	16.1 ✓	0.88 →	50.0 ✗	0.77 ↓	76.7 ✓	1.16 →
<b>R1F</b> Isle of Wight NHS Trust	58.8 ✗	1.13 →	7.7 ✗	0.55 →	50.0 ✗	0.96 →	87.5 ✓	4.92 →
<b>RBD</b> Dorset County Hospital NHS FT	66.7 ✓	1.80 ↑	11.8 ✗	0.90 →	71.4 ✓	2.31 →	58.3 ✗	0.53 →
<b>RD3</b> Poole Hospital NHS FT	62.7 ✓	1.57 ↑	11.1 ✗	0.65 →	57.1 ✗	0.81 →	66.7 ✗	1.24 →
<b>RDZ</b> Royal Bournemouth and Christchurch Hospitals NHS FT	57.7 ✗	0.81 →	11.5 ✗	0.51 ↓	46.9 ✗	0.75 →	87.5 ✓	3.12 →
<b>RHM</b> University Hospital Southampton NHS FT	47.8 ✗	0.36 ↓	23.3 ✓	1.17 →	48.5 ✗	0.6 ↓	67.9 ✗	0.72 →
<b>RHU</b> Portsmouth Hospitals NHS Trust	59.0 ✗	0.70 ↓	17.5 ✓	1.04 →	41.2 ✗	0.5 ↓	73.2 ✓	0.72 →
<b>RN506</b> Hampshire Hospitals NHS FT (RN5)	58.0 ✗	0.77 →	7.2 ✗	0.31 ↓	61.1 ✓	1.2 →	82.4 ✓	1.18 →
<b>RN541</b> Hampshire Hospitals NHS FT (RN1)	59.5 ✗	1.01 →	16.0 ✓	1.01 →	53.3 ✗	0.9 →	100.0 ✓	
<b>RNZ</b> Salisbury NHS FT	65.2 ✓	1.41 →	26.8 ✓	2.21 ↑	52.6 ✗	1.2 →	90.0 ✓	3.01 →
<b>N61 London Cancer</b>								
<b>Whole network</b>	57.8 ✗	1.00 →	16.6 ✓	0.87 →	57.9 ✗	0.90 →	63.6 ✗	0.84 →
<b>R1HKH</b> Barts Health NHS Trust (Whipps Cross)	62.6 ✓	1.76 ↑	18.5 ✓	1.21 →	71.4 ✓	2.06 →	100.0 ✓	
<b>R1HM0</b> Barts Health NHS Trust (St Barts)	62.1 ✓	1.28 →	12.1 ✗	0.60 →	83.3 ✓	4.21 →	61.5 ✗	1.09 →
<b>R1HNN</b> Barts Health NHS Trust (Newham)	50.7 ✗	0.73 →	4.2 ✗	0.15 ↓	50.0 ✗	0.51 →	25.0 ✗	0.19 →
<b>RAL</b> Royal Free London NHS FT	44.2 ✗	0.46 ↓	0.0 ✗		68.8 ✓	1.26 →	100.0 ✓	
<b>RF4</b> Barking, Havering and Redbridge University Hospitals NHS Trust	55.1 ✗	0.89 →	22.2 ✓	0.88 →	100.0 ✓		71.4 ✓	1.38 →
<b>RQW</b> The Princess Alexandra Hospital NHS Trust	60.1 ✓	0.94 →	30.2 ✓	4.06 ↑	32.4 ✗	0.3 ↓	57.1 ✗	0.52 →
<b>RQX</b> Homerton University Hospital NHS FT	65.5 ✓	1.47 →	21.0 ✓	1.83 →	68.4 ✓	1.3 →	66.7 ✗	0.55 →

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	NSCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
<b>N95 South Wales Regional Cancer Network</b>								
<b>Whole network</b>	61.3 ✓	1.41 ↑	16.6 ✓	1.39 ↑	63.2 ✓	1.25 →	66.5 ✗	1.10 →
7A2AJ Bronglais General Hospital	45.7	0.93 →	14.3 ✗	3.32 ↑	44.4 ✗	0.59 →	75.0 ✓	1.74 →
7A2AL Prince Philip Hospital	68.7 ✓	1.23 →	20.8 ✓	1.41 →	64.2 ✓	1.27 →	61.1 ✗	0.51 →
7A2BL Withybush General Hospital	64.6 ✓	1.21 →	26.0 ✓	2.01 ↑	68.4 ✓	1.80 →	87.5 ✓	2.76 →
7A3B7 Princess of Wales Hospital	61.5 ✓	1.58 →	16.7 ✓	1.54 →	50.0 ✗	0.67 →	62.5 ✗	0.57 →
7A3C7 Morriston Hospital	61.1 ✓	1.36 →	8.7 ✗	0.74 →	55.4 ✗	0.95 →	77.1 ✓	1.97 →
7A4C1 University Hospital Llandough	57.3	1.19 →	17.1 ✓	1.36 →	66.7 ✓	1.39 →	75.0 ✓	1.40 →
7A5B1 The Royal Glamorgan Hospital	57.9	1.73 ↑	19.6 ✓	1.69 →	72.7 ✓	2.02 →	33.3 ✗	0.57 →
7A5B3 Prince Charles Hospital Site	67.9 ✓	2.70 ↑	15.2 ✗	1.16 →	54.5 ✗	0.94 →	52.6 ✗	1.11 →
7A6AM Nevill Hall Hospital	68.0 ✓	2.77 ↑	18.0 ✓	2.12 ↑	85.7 ✓	4.36 ↑	81.8 ✓	5.30 ↑
7A6AR Royal Gwent Hospital	58.0	0.99 →	16.7 ✓	1.34 →	73.0 ✓	1.63 →	57.6 ✗	0.60 →
<b>N96 North Wales Regional Cancer Network</b>								
<b>Whole network</b>	58.4 ✗	1.04 →	13.0 ✗	0.95 →	55.9 ✗	0.97 →	70.6 ✓	0.88 →
7A1A1 Ysbyty Glan Clwyd	59.3 ✗	0.86 →	7.7 ✗	0.36 ↓	37.5 ✗	0.49 ↓	60.7 ✗	0.5 →
7A1A4 Wrexham Maelor Hospital	64.9 ✓	1.43 ↑	17.9 ✓	1.70 ↑	71.1 ✓	1.89 →	77.8 ✓	1.33 →
7A1AU Ysbyty Gwynedd	50.3 ✗	0.91 →	13.7 ✗	1.32 →	68.0 ✓	1.45 →	76.9 ✓	1.52 →
England total	57.6 ✗	–	15.4 ✗	–	57.3 ✗	–	67.9 ✗	–
Wales total	60.6 ✓	–	15.7 ✗	–	61.1 ✓	–	67.6 ✗	–
Guernsey total	41.0 ✗	–	13.5 ✗	–	50.0 ✗	–	50.0 ✗	–
<b>Range: network</b>								
Min	41	–	10	–	48	–	50	–
LQ	56	–	14	–	52	–	64	–
Median	59	–	16	–	57	–	70	–
UQ	63	–	17	–	63	–	73	–
Max	67	–	24	–	67	–	77	–

Place first seen	Anticancer treatment (%)	Anticancer treatment (odds ratio)	NSCLC having surgery (%)	NSCLC having surgery (odds ratio)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (%)	NSCLC stage IIIB/IV and PS 0–1 having chemotherapy (odds ratio)	SCLC patients having chemotherapy (%)	SCLC patients having chemotherapy (odds ratio)
<b>Range: trust</b>								
Min	0	–	0	–	0	–	0	–
LQ	53	–	12	–	50	–	61	–
Median	59	–	15	–	58	–	72	–
UQ	66	–	19	–	68	–	80	–
Max	86	–	57	–	100	–	100	–
<p>*This is a tertiary trust that provides treatment for lung cancer patients, but where patients are not usually first seen. The cases may have been incorrectly allocated to this trust, and instead first seen at another trust in the region. The data should be interpreted with caution.</p> <p>✓ equal to or exceeds level suggested in NLCA annual report 2014 (2013 data)</p> <p>✗ below level suggested in NLCA annual report 2014 (2013 data)</p> <p> <span style="color: green;">↑</span> statistically significantly better than national level  <span style="color: orange;">→</span> not statistically significantly different from national level  <span style="color: red;">↓</span> statistically significantly worse than national level </p>								



Table 4: Treatment measures for Scotland (2014 data)

Place first seen	QPI 6a – NSCLC having surgery (%)	QPI 6b – NSCLC stage I-II having surgery (%)	QPI 8 – Patients not undergoing surgery who receive radiotherapy with radical intent (%)	QPI 9 – Patients with NSCLC not undergoing surgery who receive radical radiotherapy and concurrent or sequential chemotherapy (%)	QPI 10 – Patients with limited-stage SCLC treated with radical intent who receive both chemotherapy and radiotherapy (%)	QPI 11a – Patients with NSCLC not undergoing surgery who receive systemic anticancer therapy (%)	QPI 11b – Patients with stage IIIB/IV NSCLC who receive double chemotherapy including platinum as their first-line regimen (%)	QPI 12b – Patients with SCLC not undergoing treatment with curative intent who receive palliative chemotherapy (%)
<b>SCAN</b>								
Borders	20.7% ✓	56.2% ✓	45.9% ✓	54.5% ✓	75.0% ✓	37.6% ✓	60.8% ✓	56.8% ✓
Dumfries and Galloway	20.0% ✓	42.1% ✗	38.2% ✓	42.9% ✗	75.0% ✓	46.3% ✓	60.0% ✓	20.0% ✗
Fife	18.8% ✓	53.3% ✓	39.2% ✓	50.0% ✓	100.0% ✓	39.2% ✓	50.0% ✗	69.2% ✓
Lothian	21.7% ✓	62.0% ✓	51.4% ✓	66.7% ✓	66.7% ✗	34.1% ✗	67.5% ✓	57.7% ✓
<b>WoSCAN</b>								
Ayrshire and Arran	24.2% ✓	66.7% ✓	33.8% ✓	56.4% ✓	42.2% ✗	37.2% ✓	57.3% ✗	76.3% ✓
Clyde	21.5% ✓	76.4% ✓	26.2% ✓	100% ✓	75.0% ✓	43.7% ✓	65.2% ✓	84.4% ✓
Forth Valley	20.9% ✓	60.4% ✓	27.9% ✓	54.5% ✓	40.0% ✗	27.0% ✗	40.7% ✗	62.5% ✓
Lanarkshire	29.2% ✓	75.0% ✓	27.8% ✓	100% ✓	37.5% ✗	44.0% ✓	60.0% ✓	81.8% ✓
North Glasgow	24.6% ✓	68.8% ✓	37.5% ✓	31.3% ✗	33.3% ✗	49.3% ✓	75.3% ✓	74.2% ✓
South Glasgow	27.3% ✓	65.2% ✓	32.2% ✓	58.3% ✓	40.0% ✗	29.2% ✗	44.7% ✗	77.8% ✓
	21.6% ✓	59.1% ✓	46.5% ✓	66.7% ✓	50.0% ✗	35.0% ✓	55.6% ✗	80.9% ✓
<b>NoSCAN</b>								
Grampian	15.5% ✗	56.9% ✓	33.6% ✓	67.7% ✓	70.0% ✓	46.5% ✓	73.1% ✓	73.2% ✓
Orkney	13.6% ✗	57.8% ✓	25.0% ✓	45.5% ✗	71.4% ✓	41.1% ✓	64.8% ✓	55.3% ✓
Shetland	12.5% ✗	*	*	–	–	57.1% ✓	*	–
Highland	19.7% ✓	81.5% ✓	29.5% ✓	80.0% ✓	*	43.9% ✓	75.0% ✓	85.7% ✓
Western Isles	15.4% ✗	*	*	–	–	27.3% ✗	*	*
Tayside	15.2% ✗	46.8% ✗	42.0% ✓	80.0% ✓	77.8% ✓	54.3% ✓	88.9% ✓	82.9% ✓

\*Results suppressed owing to small numbers

Place first seen	QPI 6a – NSCLC having surgery (%)	QPI 6b – NSCLC stage I-II having surgery (%)	QPI 8 – Patients not undergoing surgery who receive radiotherapy with radical intent (%)	QPI 9 – Patients with NSCLC not undergoing surgery who receive radical radiotherapy and concurrent or sequential chemotherapy (%)	QPI 10 – Patients with limited-stage SCLC treated with radical intent who receive both chemotherapy and radiotherapy (%)	QPI 11a – Patients with NSCLC not undergoing surgery who receive systemic anticancer therapy (%)	QPI 11b – Patients with stage IIIB/IV NSCLC who receive double chemotherapy including platinum as their first-line regimen (%)	QPI 12b – Patients with SCLC not undergoing treatment with curative intent who receive palliative chemotherapy (%)
Scotland total	21.7% ✓	63.1% ✓	35.3% ✓	59.3% ✓	53.0% ✗	39.8% ✓	61.8% ✓	73.5% ✓
<p>✓ equal to or exceeds level suggested in QPI</p> <p>✗ below level suggested in QPI</p> <p>*Results suppressed owing to small numbers</p>								

## Lung cancer nurse specialists

In 2014, access to LCNSs appears to have fallen. Of patients diagnosed in 2013, 84% were seen by an LCNS, but in the 2014 cohort, only 78% were seen. Nine organisations report that fewer than 25% of their patients see an LCNS, raising the possibility that data completeness may be an issue in these organisations. Similarly, only 87% of cases have a clear 'Yes' or 'No' as to whether the patient was seen, and it is likely that some of the remaining 13% of patients were in fact seen, suggesting that the overall figure of 78% may be an underestimate.

As in previous years, we highlight the association between access to nurse specialists and receipt of anticancer treatment (Figure 10). For example, in 2014, 63.6% of those who saw an LCNS received anticancer treatment, compared with 24.6% of those who did not see a LCNS.

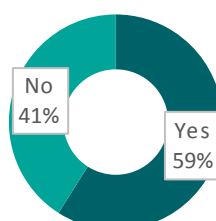
Figure 10: Proportion of patients receiving active treatment (%)

	2014	2013	2012	2011	2010	2009	2008
Seen by LCNS	63.0	65.6	66.6	65.3	64.4	64.8	59.4
Not seen by LCNS	24.5	27.1	27.4	28.7	29.8	30.4	30.6
Data not recorded	48.2	35.4	39.7	44.8	44.8	52.6	51.0

The proportion of patients who should be seen by an LCNS continues to be a source of debate, with some feeling that the bar is set too high. As a result, the NLCFN carried out a survey of its members in 2015, asking the question 'Is it feasible to have a new indicator in the NLCA that 90% of patients should be seen by a lung cancer specialist nurse?'. The responses were mixed, but 59% felt that it was feasible. Overwhelmingly, however, nurses felt that setting a challenging target was a good way to encourage investment in nursing expertise.

*'Due to the positive impact that being seen by an LCNS has on the patient journey, we should all be striving to meet this target as a minimum.'*

*'If we want to increase the number of LCNSs in the UK, setting the bar at this level will ensure that those organisations who adhere to it will no longer have a single-handed CNS.'*



*'I think that 100% should be seen by an LCNS but realise this is not feasible. However, by increasing the indicator level it may be that this will help us improve staffing and strengthen our case.'*

*'In an ideal world, 90% of patients should be seen by the LCNS but with the current level of staff this is not possible unless more funding is agreed for extra posts.'*

## Tertiary trusts

Most activity relating to lung cancer initial diagnosis in England occurs in the secondary care trusts, which range from small district general hospitals to large teaching hospitals. Subsequent treatment often takes 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, as the analysis of cases by 'place first seen' allocates patients to the decision-making MDT.

However, there are several tertiary trusts (see table below) that do not provide diagnostic services and which are therefore the 'place first seen' only rarely. These trusts do provide a very important treatment service for patients in their local area, but also on a regional/national basis. In previous years, we have recorded the numbers of patients treated in these organisations, but in this transition year, we have not had access to the relevant activity data to allow this analysis. We hope to provide this in future rounds of the audit.

**Table 5: Tertiary trusts**

Trust code	Trust name
<b>RBV</b>	The Christie NHS FT
<b>REN</b>	The Clatterbridge Cancer Centre NHS FT
<b>RGM</b>	Papworth Hospital NHS FT
<b>RM2</b>	University Hospital of South Manchester NHS FT
<b>RPY</b>	The Royal Marsden NHS FT
<b>RT3</b>	Royal Brompton and Harefield NHS FT

## Appendix 1: Trust and health board identification for England, Wales and Guernsey

XXX	Strategic Clinical Network
XXX	Hospital NHS trust
XXX	Tertiary centre NHS trust
XXX	Participated via COSD, but did not submit LUCADA data file, so not included in current analysis

<b>N61</b>	<b>London Cancer</b>
<b>R1HKH</b>	Barts Health NHS Trust (Whipps Cross)
<b>R1HMO</b>	Barts Health NHS Trust (St Barts)
<b>R1HMH</b>	Barts Health NHS Trust (Newham)
<b>RAL</b>	Royal Free London NHS FT
<b>RAP</b>	North Middlesex University Hospital NHS Trust
<b>RF4</b>	Barking, Havering and Redbridge University Hospitals NHS Trust
<b>RKE</b>	The Whittington Hospital NHS Trust
<b>RQW</b>	The Princess Alexandra Hospital NHS Trust
<b>RQX</b>	Homerton University Hospital NHS FT
<b>RRV</b>	University College London Hospitals NHS FT
<b>RVL</b>	Barnet and Chase Farm Hospitals NHS Trust
<b>N44</b>	<b>London Cancer Alliance</b>
<b>RAS</b>	The Hillingdon Hospitals NHS FT
<b>RAX</b>	Kingston Hospital NHS Trust
<b>R1K04</b>	Ealing Hospital NHS Trust (was RC3)
<b>RFW</b>	West Middlesex University Hospital NHS Trust
<b>RJ1</b>	Guy's and St Thomas' NHS FT
<b>RJ2</b>	Lewisham and Greenwich NHS Trust
<b>RJ6</b>	Croydon Health Services NHS Trust
<b>RJ7</b>	St George's Healthcare NHS Trust
<b>RJZ</b>	King's College Hospital NHS FT
<b>RPY</b>	The Royal Marsden NHS FT
<b>RQM</b>	Chelsea and Westminster Hospital NHS FT
<b>RT3</b>	Royal Brompton and Harefield NHS FT
<b>R1K99</b>	North West London Hospitals NHS Trust (was RV8)
<b>RVR</b>	Epsom and St Helier University Hospitals NHS Trust
<b>RYJ</b>	Imperial College Healthcare NHS Trust
<b>N50</b>	<b>Cheshire and Merseyside</b>
<b>LLCU</b>	Liverpool Lung Cancer Unit
<b>RBL</b>	Wirral University Teaching Hospital NHS FT
<b>RBN</b>	St Helens and Knowsley Hospitals NHS Trust
<b>REM</b>	Aintree University Hospital NHS FT
<b>REN</b>	The Clatterbridge Cancer Centre NHS FT
<b>RJR</b>	Countess of Chester Hospital NHS FT

<b>RVY</b>	Southport and Ormskirk Hospital NHS Trust
<b>RWW</b>	Warrington and Halton Hospitals NHS FT
<b>N51</b>	<b>Greater Manchester, Lancashire and South Cumbria</b>
<b>RBT</b>	Mid Cheshire Hospitals NHS FT
<b>RBV</b>	The Christie NHS FT
<b>RJN</b>	East Cheshire NHS Trust
<b>RM2</b>	University Hospital of South Manchester NHS FT
<b>RM3</b>	Salford Royal NHS FT
<b>RMIC</b>	Bolton NHS FT
<b>RMP</b>	Tameside Hospital NHS FT
<b>RRF</b>	Wrightington, Wigan and Leigh NHS FT
<b>RTX</b>	University Hospitals of Morecambe Bay NHS FT
<b>RW3</b>	Central Manchester University Hospitals NHS FT
<b>RW6</b>	Pennine Acute Hospitals NHS Trust
<b>RWJ</b>	Stockport NHS FT
<b>RXL</b>	Blackpool Teaching Hospitals NHS FT
<b>RXN</b>	Lancashire Teaching Hospitals NHS FT
<b>RXR</b>	East Lancashire Hospitals NHS Trust
<b>N52</b>	<b>Northern England</b>
<b>RE9</b>	South Tyneside NHS FT
<b>RLN</b>	City Hospitals Sunderland NHS FT
<b>RNL</b>	North Cumbria University Hospitals NHS Trust
<b>RR7</b>	Gateshead Health NHS FT
<b>RTD</b>	The Newcastle Upon Tyne Hospitals NHS FT
<b>RTF</b>	Northumbria Healthcare NHS FT
<b>RTR</b>	South Tees Hospitals NHS FT
<b>RVW</b>	North Tees and Hartlepool NHS FT
<b>RXP</b>	County Durham and Darlington NHS FT
<b>N53</b>	<b>Yorkshire and the Humber</b>
<b>RAE</b>	Bradford Teaching Hospitals NHS FT
<b>RCB55</b>	York Hospital (Historic RCB)
<b>RCBCA</b>	Scarborough General Hospital (Historic RCC)
<b>RCD</b>	Harrrogate and District NHS FT
<b>RCF</b>	Airedale NHS FT
<b>RFF</b>	Barnsley Hospital NHS FT
<b>RFR</b>	The Rotherham NHS FT
<b>RFS</b>	Chesterfield Royal Hospital NHS FT

<b>RHQ</b>	Sheffield Teaching Hospitals NHS FT
<b>RIL</b>	Northern Lincolnshire and Goole Hospitals NHS FT
<b>RP5</b>	Doncaster and Bassetlaw Hospitals NHS FT
<b>RR8</b>	Leeds Teaching Hospitals NHS Trust
<b>RWA</b>	Hull and East Yorkshire Hospitals NHS Trust
<b>RWY</b>	Calderdale and Huddersfield NHS FT
<b>RXF</b>	Mid Yorkshire Hospitals NHS Trust
<b>N54</b>	<b>East of England</b>
<b>RAJ</b>	Southend University Hospital NHS FT
<b>RC1</b>	Bedford Hospital NHS Trust
<b>RC9</b>	Luton and Dunstable Hospital NHS FT
<b>RCX</b>	The Queen Elizabeth Hospital, King's Lynn, NHS FT
<b>RDD</b>	Basildon and Thurrock University Hospitals NHS FT
<b>RDE</b>	Colchester Hospital University NHS FT
<b>RGM</b>	<b>Papworth Hospital NHS FT</b>
<b>RGN</b>	Peterborough and Stamford Hospitals NHS FT
<b>RGP</b>	James Paget University Hospitals NHS FT
<b>RGR</b>	Ipswich Hospital NHS Trust
<b>RGR</b>	West Suffolk NHS FT
<b>RGT</b>	Cambridge University Hospitals NHS FT
<b>RM1</b>	Norfolk and Norwich University Hospitals NHS FT
<b>RQ8</b>	Mid Essex Hospital Services NHS Trust
<b>RQQ</b>	Hinchingbrooke Health Care NHS Trust
<b>RWG</b>	West Hertfordshire Hospitals NHS Trust
<b>RWH</b>	East and North Hertfordshire NHS Trust
<b>N55</b>	<b>East Midlands</b>
<b>RJF</b>	Burton Hospitals NHS FT
<b>RK5</b>	Sherwood Forest Hospitals NHS FT
<b>RNQ</b>	Kettering General Hospital NHS FT
<b>RTG</b>	Northampton General Hospital NHS Trust
<b>RNS</b>	Derby Hospitals NHS FT
<b>RWD</b>	<b>United Lincolnshire Hospitals NHS Trust</b>
<b>RWE</b>	University Hospitals of Leicester NHS Trust
<b>RX1</b>	Nottingham University Hospitals NHS Trust
<b>N56</b>	<b>West Midlands</b>
<b>RBK</b>	Walsall Healthcare NHS Trust
<b>RJC</b>	South Warwickshire NHS FT

<b>RJE</b>	University Hospital of North Midlands NHS Trust	<b>RVJ</b>	North Bristol NHS Trust	<b>RDZ</b>	The Royal Bournemouth and Christchurch Hospitals NHS FT
<b>RKB</b>	University Hospitals Coventry and Warwickshire NHS Trust	<b>N58</b>	<b>South East Coast</b>	<b>RHM</b>	University Hospital Southampton NHS FT
<b>RL4</b>	The Royal Wolverhampton NHS Trust	<b>RA2</b>	Royal Surrey County Hospital NHS FT	<b>RHU</b>	Portsmouth Hospitals NHS Trust
<b>RLQ</b>	Wye Valley NHS Trust	<b>RDU</b>	Frimley Park Hospital NHS FT	<b>RN506</b>	Hampshire Hospitals NHS FT (RN5)
<b>RLT</b>	George Eliot Hospital NHS Trust	<b>RN7</b>	Dartford and Gravesham NHS Trust	<b>RN541</b>	Hampshire Hospitals NHS FT (RN1)
<b>RNA</b>	The Dudley Group NHS FT	<b>RPA</b>	Medway NHS FT	<b>RNZ</b>	Salisbury NHS FT
<b>RR1</b>	Heart of England NHS FT	<b>RTK</b>	Ashford and St Peter's Hospitals NHS FT		
<b>RRK</b>	University Hospitals Birmingham NHS FT	<b>RTP</b>	Surrey and Sussex Healthcare NHS Trust	<b>NWW</b>	<b>North Wales Regional Cancer Network</b>
<b>RWP</b>	Worcestershire Acute Hospitals NHS Trust (RWP31/50)	<b>RVV</b>	East Kent Hospitals University NHS FT	<b>7A1A1</b>	Ysbyty Glan Clwyd
<b>RWP01</b>	Worcestershire Acute Hospitals NHS Trust (RWP01)	<b>RWF</b>	Maidstone and Tunbridge Wells NHS Trust	<b>7A1A4</b>	Wrexham Maelor Hospital
<b>RXX</b>	Sandwell and West Birmingham Hospitals NHS Trust	<b>RXC</b>	East Sussex Healthcare NHS Trust	<b>7A1AU</b>	Ysbyty Gwynedd
<b>RXW</b>	Shrewsbury and Telford Hospital NHS Trust	<b>RXH</b>	Brighton and Sussex University Hospitals NHS Trust	<b>SWCN</b>	<b>South Wales Regional Cancer Network</b>
<b>N57</b>	<b>South West</b>	<b>RYR16</b>	Western Sussex Hospitals NHS Trust (RYR16)	<b>7A2AJ</b>	Bronglais General Hospital
<b>RA3</b>	Weston Area Health NHS Trust	<b>RYR18</b>	Western Sussex Hospitals NHS Trust (RYR18)	<b>7A2AL</b>	Prince Philip Hospital
<b>RA4</b>	Yeovil District Hospital NHS FT	<b>N59</b>	<b>Thames Valley</b>	<b>7A2BL</b>	Withybush General Hospital
<b>RA7</b>	University Hospitals Bristol NHS FT	<b>RD7</b>	Heatherwood and Wexham Park Hospitals NHS FT	<b>7A3B7</b>	Princess of Wales Hospital
<b>RA9</b>	South Devon Healthcare NHS FT	<b>RD8</b>	Milton Keynes Hospital NHS FT	<b>7A3C7</b>	Morriston Hospital
<b>RBA</b>	Taunton and Somerset NHS FT	<b>RHW</b>	Royal Berkshire NHS FT	<b>7A4C1</b>	University Hospital Llandough
<b>RBZ</b>	Northern Devon Healthcare NHS Trust	<b>RN3</b>	Great Western Hospitals NHS FT	<b>7A5B1</b>	The Royal Glamorgan Hospital
<b>RD1</b>	Royal United Hospital Bath NHS Trust	<b>RTH</b>	Oxford University Hospitals NHS Trust	<b>7A5B3</b>	Prince Charles Hospital Site
<b>REF</b>	Royal Cornwall Hospitals NHS Trust	<b>RXQ</b>	Buckinghamshire Healthcare NHS Trust	<b>7A6AM</b>	Nevill Hall Hospital
<b>RH8</b>	Royal Devon and Exeter NHS FT	<b>N60</b>	<b>Wessex</b>	<b>7A6AR</b>	Royal Gwent Hospital
<b>RK9</b>	Plymouth Hospitals NHS Trust	<b>R1F</b>	Isle of Wight NHS Trust		
<b>RTE</b>	Gloucestershire Hospitals NHS FT	<b>RD3</b>	Poole Hospital NHS FT	<b>RHM34</b>	<b>Guernsey</b>
					Princess Elizabeth Hospital, Guernsey

## Appendix 2: Glossary

<b>Adenocarcinoma</b>	a type of cancer arising from glandular tissue
<b>Anticancer treatment (active treatment)</b>	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 of these
<b>Benchmark</b>	a method of comparing processes and outcomes against standards
<b>Biopsy</b>	removal and examination of tissue, usually microscopic, to establish a precise ( <b>pathological</b> ) diagnosis
<b>Bronchoscopy</b>	a procedure for examining the airways by inserting an instrument (bronchoscope) into the trachea and lungs, normally via the nose. Enables a <b>bronchial biopsy</b> to be taken
<b>Bronchial biopsy</b>	removal of a small piece of lung tissue during a <b>bronchoscopy</b> in order to make a <b>pathological</b> diagnosis
<b>Casemix</b>	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 casemix enables a more accurate method of comparing quality of care ( <b>casemix adjustment</b> )
<b>Casemix adjustment</b>	a statistical method of comparing quality of care between organisations that takes into account important and measurable patient characteristics
<b>Chemotherapy</b>	medicines used in the treatment of cancer that can be given by mouth or by injection
<b>Comorbidity</b>	medical condition(s) or disease process(es) that are additional to the disease under investigation (in this case, lung cancer). In the NLCA, this is recorded when a comorbidity restricts the type of treatment that can be given for lung cancer
<b>COSD</b>	the Cancer Outcomes and Services Dataset (COSD) is the national standard for reporting on cancer in the NHS in England. Trusts submit a data file to the National Cancer Registration Service (NCRS) every month
<b>CT scan</b>	the abbreviated term for computerised tomography. These tests produce detailed images of the body using X-ray images that are enhanced by a computer
<b>Data completeness</b>	a measure of the standard of data submitted to the audit, in terms of both the number of cases submitted and the data on each individual case
<b>Diagnosis</b>	confirming the presence of the disease (see <b>pathological diagnosis</b> )
<b>Health board</b>	an organisation providing healthcare services in Scotland and Wales. A health board may manage one or several hospitals within a region
<b>Hospital trust</b>	an organisation providing secondary healthcare services in England. A hospital trust may be made up of one or several hospitals within a region
<b>Interquartile range</b>	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
<b>Lung cancer nurse specialist (LCNS)</b>	A nurse specialising in care of people diagnosed with lung cancer or mesothelioma
<b>Lead clinician</b>	Healthcare professional in a hospital taking overall responsibility for the services provided for a specific disease area
<b>MDT</b>	multidisciplinary team; a group of healthcare professionals working in a coordinated manner for patient care

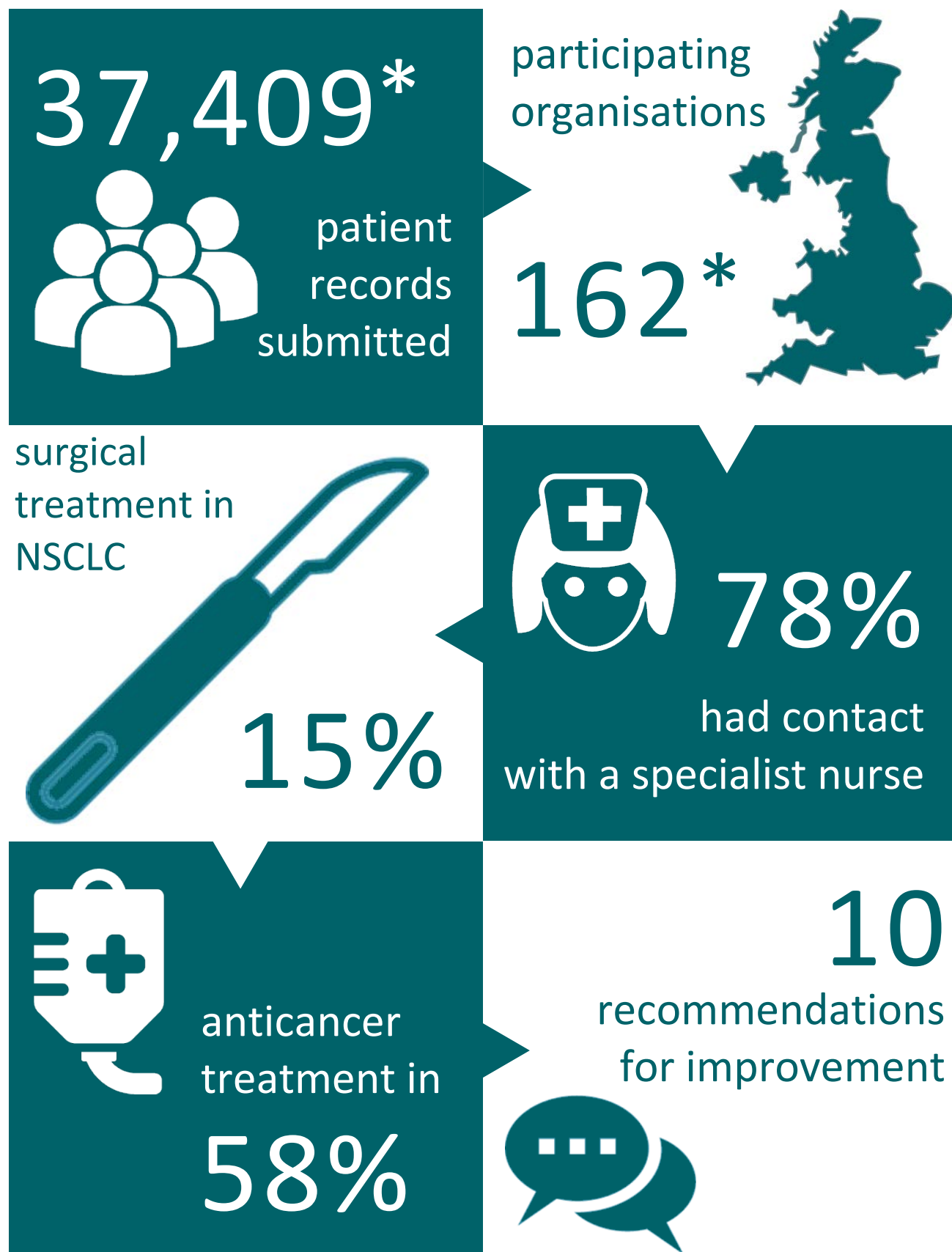
<b>Mesothelioma</b>	cancer of the lining of the lung caused by exposure to asbestos
<b>NLCA</b>	National Lung Cancer Audit
<b>Non-small-cell lung cancer (NSCLC)</b>	a group of types of lung cancer sharing certain characteristics, which makes up 85–90% of all lung cancers. Includes squamous carcinoma and adenocarcinoma. See also <b>small-cell lung cancer</b>
<b>NOS</b>	not otherwise specified. In the case of <b>NSCLC</b> histology, this implies that the pathological diagnosis has not been subclassified to a particular cell type, eg squamous carcinoma, adenocarcinoma etc
<b>Operability</b>	in the consideration of surgical treatment of a lung cancer, refers to patients' ability to cope with both the operation and the subsequent reduction of lung volume and function. See also <b>resectability</b>
<b>Pathological diagnosis</b>	refers to a diagnosis of cancer based on pathological examination of a tissue (histology) or fluid (cytology), as opposed to a diagnosis based on clinical assessment or non-pathological investigation (eg <b>CT scan</b> )
<b>Performance status (PS)</b>	a systematic method of recording the ability of an individual to undertake the tasks of normal daily life compared with that of a healthy person
<b>Radiotherapy</b>	the treatment of cancer using radiation, which is most often delivered by X-ray beams (external beam radiotherapy) but can be given internally (brachytherapy)
<b>Resectability</b>	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 <b>operability</b>
<b>RCP</b>	abbreviation for the Royal College of Physicians, the professional body of doctors practising general medicine and its subspecialties
<b>Secondary care</b>	care provided by a hospital, as opposed to that provided in the community by a GP and allied staff (primary care)
<b>Small-cell lung cancer (SCLC)</b>	a type of lung cancer making up around 10–15% of all lung cancers. See also <b>non-small-cell lung cancer</b>
<b>Squamous carcinoma</b>	a type of cancer arising from cells that line body cavities
<b>Staging/stage</b>	the anatomical extent of a cancer
<b>Strategic Clinical Network (SCN)</b>	a system within the NHS to organise the integrated care of patients across a geographical region
<b>Surgical resection</b>	an operation to remove abnormal tissues or organs
<b>Tertiary centres</b>	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



## Appendix 3: Partner organisations



## 2014 in review



\*These totals include Scotland data.



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