Royal College of Physicians

Improving care for lung cancer patients: a collaborative approach

Improvement stories from lung cancer teams

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> Macmillan Cancer Support, represented by Julie Atkin-Ward
> Roy Castle Lung Cancer Foundation, represented by Susan Christie.

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Contents

1 Purpose

The purpose of this booklet is to give lung cancer teams across the country an overview of the aims, activities and achievements of the Improving Lung Cancer Outcomes Project (ILCOP).

Lung cancer teams that participated in ILCOP changed their perspectives about their own processes and their team work; and were determined to make changes that would improve the quality of care that patients receive.

Although teams received support to attend the project workshops, they received no additional funding to implement the changes in their services. The four case studies in this booklet are the 'tip of the iceberg' when it comes to inspirational stories from the teams involved in the project.

We hope that by sharing our journey we will inspire others to find out more about the project as well as how to get involved with other resourceful organisations and networks in the UK. Please keep an eye on:

> our project website: www.rcplondon.ac.uk/resources/improving-lung-cancer-outcomes-project-ilcop
> ILCOP-related publications
> other useful organisations (page 20)
> your local ILCOP team (page 21).

2 Introduction

Lung cancer teams in England have been submitting data to the National Lung Cancer Audit (NCLA) since 2005 and although there have been significant improvements in process and outcome measures over this time, there remains a large variation which is not wholly explained by differences in casemix. The 2010 Health Foundation 'Closing the Gap' awards were therefore very timely and the project team were delighted to receive one of ten national awards.

ILCOP aimed to:

- identify the reasons for variations in lung cancer outcomes across England
- apply proven quality improvement methods to target specific problems
- develop an educational programme to spread the learning (this booklet is part of this)
- develop and collect patient reported experience from lung cancer patients.

As ILCOP clinical director, I have been tremendously impressed with the enthusiasm of lung cancer teams to participate in this project – in particular, the willingness to share innovative ideas and support other teams in implementing them. Considerable effort was required to organise and attend the reciprocal peer-led service reviews but, as I hope you will see from the examples in this booklet, that this effort was definitely worthwhile. We have also been very fortunate to have worked with a number of other partner organisations that have supported us during all stages of this project. I am particularly proud of the new patient experience questionnaire that we created with the help of the Roy Castle Lung Cancer Foundation, the UK's only lung cancer charity

The challenge now is to build on the learning from this project to drive further improvements in lung cancer care and ensure that they are sustained and the learning can be spread to all lung cancer teams in England.

Dr Ian Woolhouse ILCOP clinical director, respiratory consultant
University Hospitals Birmingham NHS Foundation Trust

3 ILCOP approach to quality improvement

In 2010, all 156 lung cancer services in England were invited to take part in ILCOP. Ninety-six expressed an interest, 80 were deemed eligible and thirty were randomly selected to participate.

Reciprocal peer-led service reviews

The 30 teams in the intervention group were each paired with another trust for the duration of the project. This involved visiting each other's services for one full day, attending their lung cancer multidisciplinary meeting and discussing – with the support of a facilitator – their latest National Lung Cancer Audit results and their ILCOP patient experience questionnaire results.

Additional activities

The 30 teams were also asked to:

- develop local quality improvement plans – the vast majority of teams took forward between two and four improvement ideas that came out of their peer-led service review
- attend three workshops (introductory, mid-project and final) to promote the sense of community and maximise the sharing of best practice
- attend a series of online conferences to both report and hear the progress with implementing quality improvement plans
- collect patient experience data at three points during the project
- collect data to provide evidence of improvement.

4 The model for improvement

ILCOP teams were encouraged to use the 'Model for improvement'[1] to refine their quality improvement plans.

Throughout the project life, teams were provided with feedback on their plans, helped to clarify aims, and given examples on how to demonstrate change. This model was embedded in the second project workshop and the participant's QI manual.

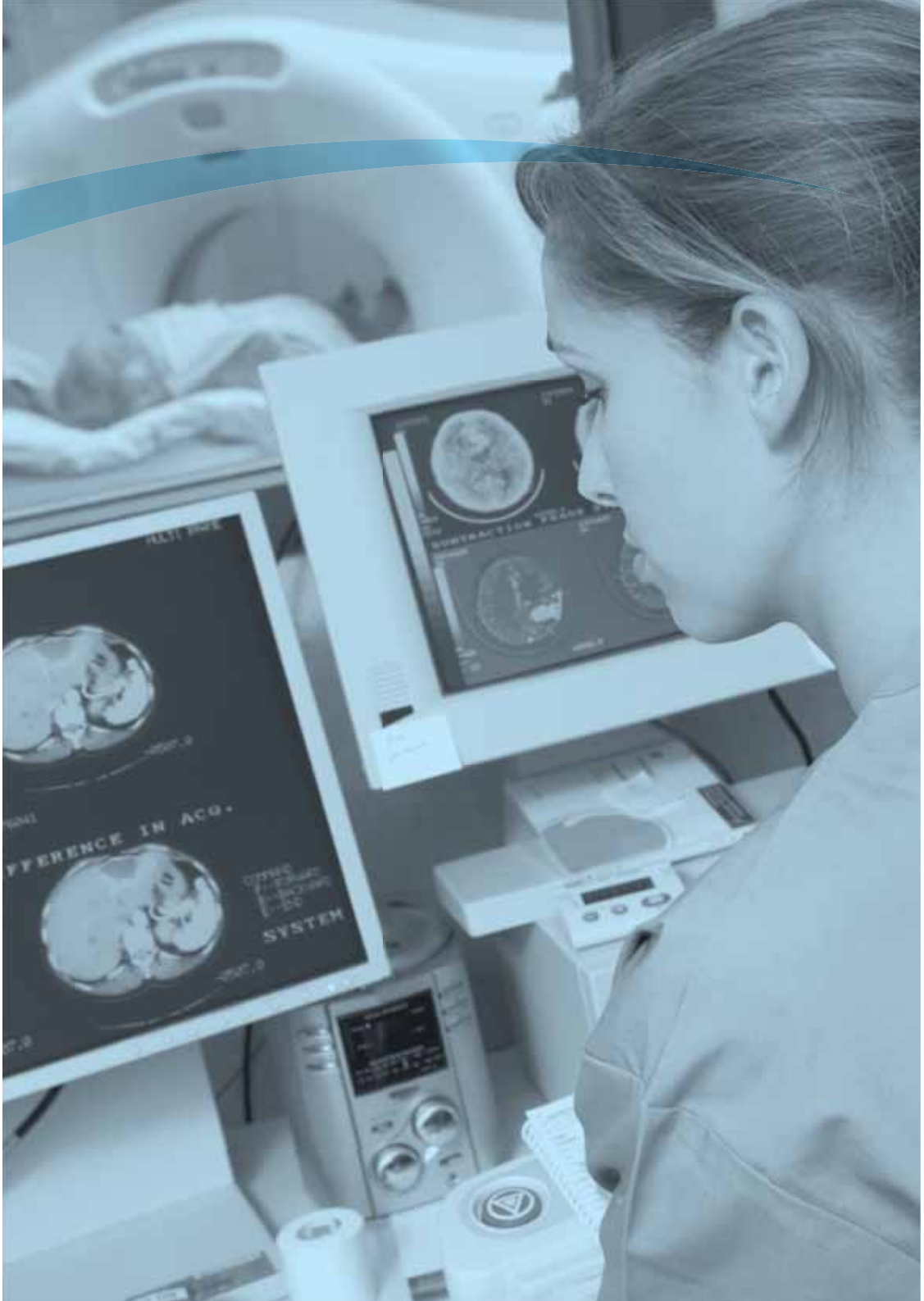
Local data collection exercises

Thirteen out of the 30 ILCOP teams provided data to demonstrate the impact of their changes.

Model for improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement

1. Langley GL, Nolan KM, Nolan TW, Norman CL, and Provost, LP. The improvement guide: a practical approach to enhancing organisational performance (San Francisco, 2nd edition).



5 Improvement stories

Burton Hospitals NHS Trust: Lung cancer pathway changes

The lung cancer team at Burton Hospitals NHS Trust was paired with the team from Liverpool Heart and Chest Hospital NHS Trust. As a result of their reciprocal peer-led service review visits, the team have changed their lung cancer pathway. For instance:

- CT scans, lung function and blood tests take place before an appointment with a respiratory consultant and lung cancer nurse specialist in a dedicated lung cancer clinic.
- A radiology meeting preceding the clinic allows the clinicians to decide which further tests patients may need on the same day.
- Where appropriate, additional tests to a CT-guided biopsy or bronchoscopy are performed on the same day as well.
- Positron Emission Tomography (PET) scans, to either confirm the presence of cancer or to confirm the extent of the disease, are now requested at the time of the clinic, without recourse to the service's full multidisciplinary team meeting which discusses potential treatment options for the patient.

Patients under the care of the Burton team now:

- will have less time to wait to confirm or discard a lung cancer diagnosis
- will be considered for treatment in a shorter time period than before
- are assured of access to a lung cancer nurse specialist during their first clinic appointment who can provide them additional information concerning the tests they are undergoing.

The Burton Hospitals NHS Trust lung cancer clinical lead said:

'It has been challenging to co-ordinate all the different parts of the service to provide our one-stop clinic, but everyone's enthusiasm has paid off. It is very rewarding to be able to stage the disease, confirm the cell type and have an agreed treatment plan within 1 week of their first consultation with us. Whilst such patients are still in the minority, we can be proud of the professional, efficient service we are offering.' ***Dr Paul Beckett***

Salford Royal NHS Foundation Trust: Earlier work-up for curative treatment candidates

The lung cancer team at Salford Royal NHS Foundation was paired with the Heart of England NHS Foundation Trust. One of the 'hot topics' of the peer-led service reviews was the difference in their surgery rates. Following the peer-led service review, the Salford team quickly identified the key diagnostic tests that inform all decisions regarding treatment and could be performed earlier in the patient's pathway.

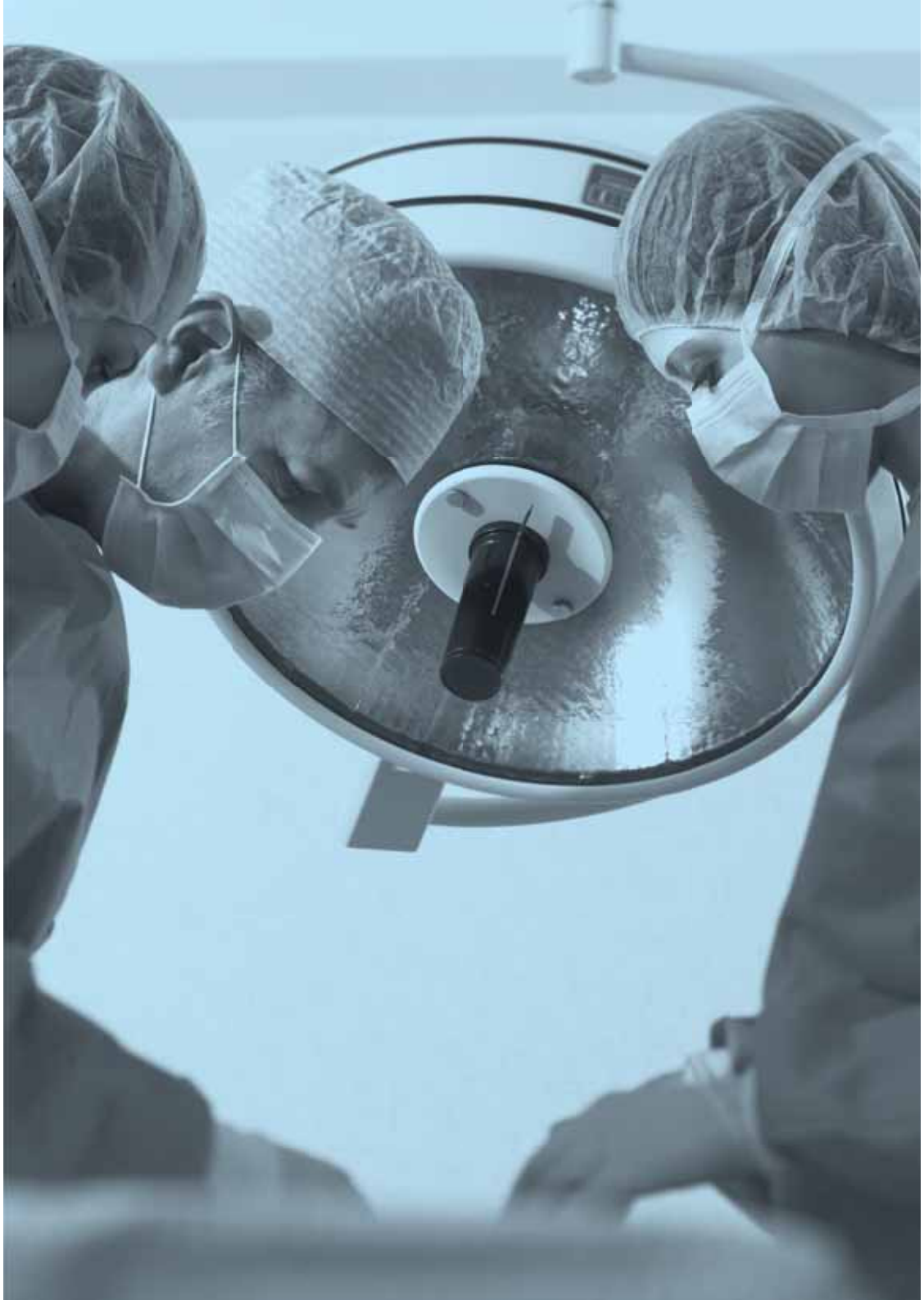
As a result of the team's improvement efforts, all patients potentially suitable for curative treatment have:

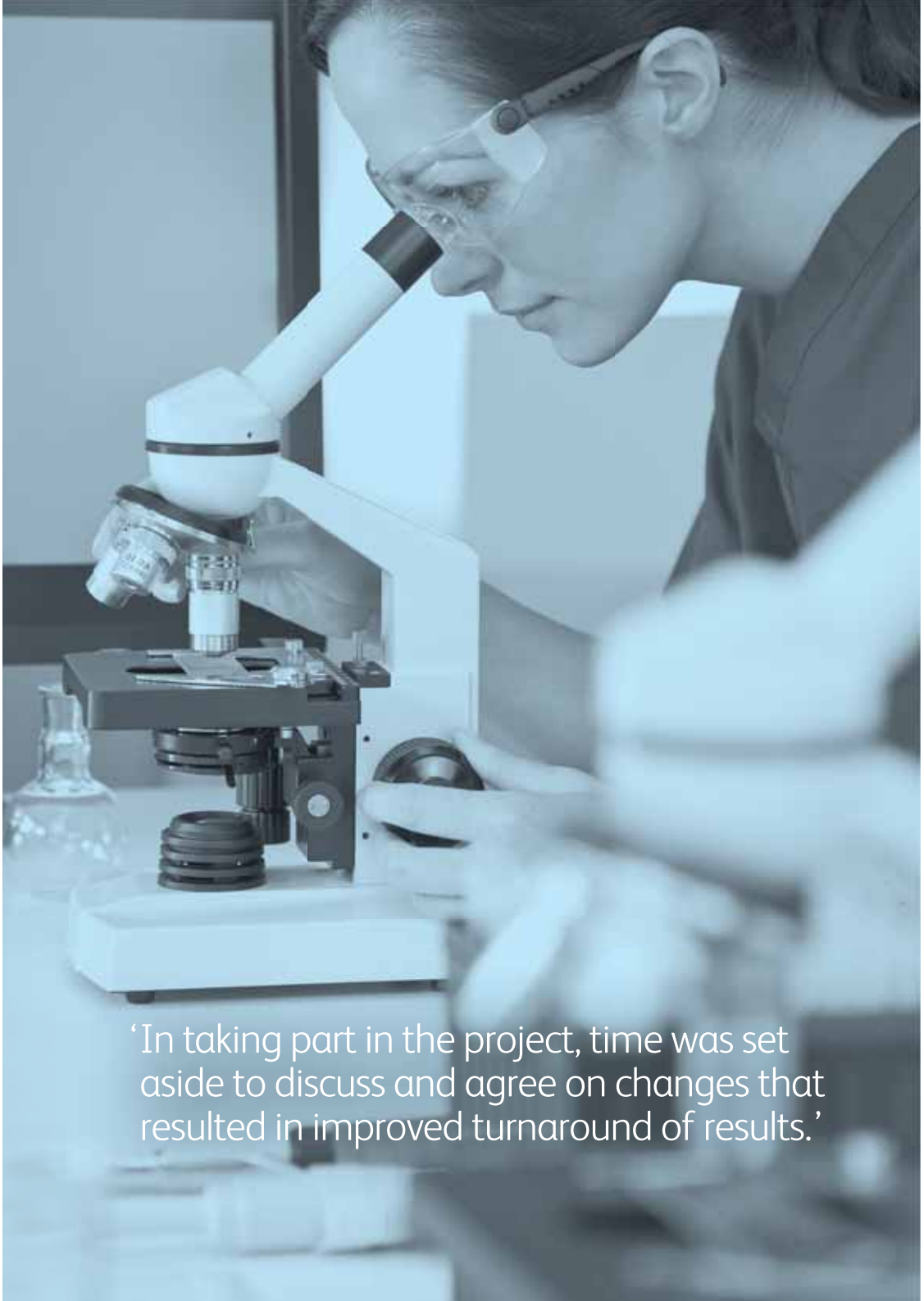
- PET-CT, advanced lung function and echocardiogram booked into reserved slots, after their first visit to the lung cancer clinic
- Comorbidities are mapped and their exercise tolerance is assessed during the patient's first visit to the lung cancer clinic.

Further efforts to make improvements, such as working with other medical specialties and diagnostic services, are planned to support this new pathway.

The Salford Royal NHS Foundation Trust lung cancer clinical lead said:

'Using the lessons learnt from our shared experiences as part of ILCOP, our team has come to appreciate the importance of identifying the rate limiting step in formulating a surgical treatment decision for our patients. We are now geared up to identifying this step as early as the first clinic visit and we use it to shape the whole of the diagnostic pathway. We also recognise that by identifying this step at an early stage we prevent unnecessary extensive investigations, allowing us to keep within our performance targets and budgetary constraints.' ***Dr Simon Taggart***





Royal Cornwall Hospitals NHS Trust: Improved pathology turnaround times

The lung cancer team at Royal Cornwall Hospitals NHS Trust was paired with Royal United Hospital Bath NHS Trust. During their peer-led service review, speeding up the processing and review of bronchial biopsy specimens emerged as an area for improvement.

The team worked closely with their pathology department colleagues. A number of steps were taken:

- They established the key timings of the various pathology processes which would enable results to be ready for discussion by the team (next day).
- The team found ways to meet those timings, which included the hand delivery of specimens to the pathology department, immediately after clinic, and making sure the samples were prepared and set in fixative the same night.

As a result of the team’s improvement efforts:

- bronchial biopsy specimens are consistently ready for review by the team within 24 hours
- the length of time that patients wait to receive a lung cancer diagnosis is reduced.

The Royal Cornwall Hospitals NHS Trust lung cancer team lead said:

‘We gained an insight into the workings and difficulties of pathology department that we worked alongside but rarely communicated with. In taking part in the project, time was set aside to discuss and agree on changes that resulted in improved turnaround of results. The net benefit was bronchoscopy biopsies were available (cancer: yes or no) to be discussed at the meeting that week.’ ***Dr Stephen Iles***

Queen Elizabeth Hospital King's Lynn NHS Trust: Getting more from the multidisciplinary team meeting

The lung cancer team at the Queen Elizabeth Hospital King's Lynn NHS Foundation Trust was paired with Sherwood Hospitals NHS Foundation Trust. As a result of their peer-led service review, they made changes to their data collection processes such as capturing patient data 'live' on a large screen during the meeting and making changes to their patient list and meeting documentation.

Overall, the team have a more disciplined approach to their meeting preparation and etiquette. They also make the best possible use of data from a number of different hospital systems. As a result:

- treatment discussions now benefit from having 100% of patients' performance status recorded, and the disease stage where this can be assessed
- team members are clear as to the exact 'next steps' for each patient and can query these steps if necessary
- patient-related data is immediately available on the internal lung cancer database and the outcomes are circulated to team members
- the team coordinator and lung cancer nurse specialist can now spend less time on validating patient data after the multidisciplinary team (MDT) meeting.

The Queen Elizabeth Hospital King's Lynn NHS Trust lung cancer team lead and specialist nurse said:

'We came to appreciate that we could make better use of our limited time and resources by having a well thought out process for the preparation for the MDT, making the best use of technology within the MDT and ensuring that everyone's roles with regards to data collection and data uploading were clearly set out. As a result, our already well functioning MDT can now meet the peer review criteria for circulating outcomes to the whole team. Our team has a more complete national lung cancer audit data which can help us to identify further service improvement projects that will improve the quality of patient care.' ***Dr Anna Pawlowicz and Sister Jules Barfoot***

6 Reasons for variation in lung cancer teams

ILCOP aimed to gain insight into the local reasons for variation in performance across lung cancer teams in terms of outcomes for patients. The table below outlines some of the observations made by the quality improvement facilitator during and after reciprocal peer-led service reviews.

Outcome	Reasons for variation
Patient has a histological diagnosis of lung cancer	> Decisions to seek a histological diagnosis are taken when a team feels that there would be a tangible benefit to the patient. This appreciation of benefits may vary across teams. > In some cases, oncologists will be insistent that there is histological diagnosis before suggesting treatment options which was understood to positively affect this outcome.
Patient receives active treatment	> Access to an oncologist would appear to affect this outcome. Some teams with lower active treatment rates do not have an oncologist on site. > The individual oncologist's level of enthusiasm or expertise in treating patients seems to affect this outcome. > The absence of a clinical oncologist, for a period of time, appears to impact negatively on this outcome.
Patient undergoes surgical resection	> Having a surgeon present at MDT meetings seems to be accompanied by higher levels of surgical intervention than those teams who do not have regular attendance. > One reason for this could be that there is no substitute for surgical expertise and opinion. Although teams without this resource try their very best to refer every potential surgical patient, they are inevitably preselecting patients for the absent surgeon.
Small cell lung cancer patient receives chemotherapy	> It is possible to prioritise this kind of patient in terms of expediting pathology tests and ensuring that oncology appointments are booked for them as soon as possible. > Some teams appear to be uncomfortable with this approach, pointing out that a patient requires a certain amount of time to cope with the lung cancer diagnosis before they are informed of / invited to an oncology appointment. This could be one reason for variation in performance in this outcome.
Patients receive curative treatment	> The majority of teams appear to link fast diagnostic pathways with a higher likelihood of receiving treatment. > It became clear from the quality improvement plans submitted by the teams that there is variation in the speed of diagnostic pathways across the ILCOP. This variation in speed of diagnostic pathways could, potentially, be one reason for variation in performance in this outcome.
Patient sees a lung cancer nurse specialist at the time of diagnosis	> Staffing levels would appear to affect this outcome. Teams with higher ratios of lung cancer nurses to patients seem to meet targets for this outcome more often than teams who have low ratios. > Some teams organise their clinics so that all patients who will be receiving a diagnosis are seen by a lung cancer nurse as well as a consultant. Other teams seem to plan the lung cancer nurse contact in more of an ad hoc way which can lead to patients not seeing the lung nurse at time of diagnosis. > In the case of inpatients, the 'breaking of bad news' is not always planned and therefore the lung cancer nurse is not always able to support the patient following their diagnosis.
Patient sees a lung cancer nurse at defined points along their pathway	> Staffing levels appear to affect this outcome. Teams with higher ratios of lung cancer nurse to patients seem to achieve better results for this outcome. > Alert systems can notify the lung cancer nurse that a lung cancer patient has been admitted to hospital. Some teams have very effective alert systems and others have less effective systems. > Across the ILCOP teams, there seems to be variation in the level of awareness in other hospital teams about the role of the lung cancer nurse. This seems to impact on the frequency of notifications to the lung cancer nurse of suspected or actual lung cancer patients within the hospital.

7 Useful organisations

Contact, Help, Advice and Information Network (CHAIN)
www.chain.ulcc.ac.uk
An online network for people working in health and social care to exchange ideas.

Improvement Faculty at the NHS Institute for Improvement and Innovation www.institute.nhs.uk
The Improvement Faculty for Patient Safety and Quality is a forum to educate, connect and influence improvers of the health service.

Macmillan Cancer Support www.macmillan.org.uk
Macmillan Cancer Support is a source of support for people affected by cancer as well as carers, families and health professionals.

National Cancer Action Team www.ncat.nhs.uk
NCAT's role is to support the NHS, through the cancer networks, to implement the improving outcomes strategy for cancer.

National Cancer Intelligence Network www.ncin.org.uk
The NCIN works to drive change by improving and using the information collected about cancer.

National Lung Cancer Forum for Nurses www.nlcfn.org.uk
This Forum provides information for patients, carers and health professionals.

NHS Improvement www.improvement.nhs.uk
NHS Improvement's strength and expertise help to support improved patient experience and outcomes through practical service involvement.

Roy Castle Lung Cancer Foundation www.roycastle.org
The Roy Castle Lung Cancer Foundation is the only charity in the UK wholly dedicated to the defeat of lung cancer.

The Health Foundation www.health.org.uk
The Health Foundation contributes to improvement in healthcare.

The National Audit for Lung Cancer at the The Health and Social Care Information Centre www.ic.nhs.uk
An authoritative source of health and social care information.

8 The ILCOP teams

Our special thanks to the lung cancer teams at:

- Aintree University Hospitals NHS Foundation Trust
- Airedale NHS Trust
- Barking, Havering And Redbridge Hospitals NHS Trust
- Basildon And Thurrock University Hospitals NHS Foundation Trust and Southend University Hospital NHS Foundation Trust
- Basingstoke And North Hampshire NHS Foundation Trust
- Brighton and Sussex University Hospitals NHS Trust
- Burton Hospitals NHS Trust
- Dartford And Gravesham NHS Trust
- East and North Hertfordshire NHS Trust
- Gateshead Health NHS Foundation Trust
- Heart of England NHS Foundation Trust
- Leeds Teaching Hospitals NHS Trust
- Liverpool Heart and Chest Hospital NHS Trust
- Mid Essex Hospital Services NHS Trust
- North Cumbria Acute Hospitals NHS Trust
- North Middlesex University Hospital NHS Trust
- Northumbria Health Care NHS Foundation Trust
- Peterborough And Stamford Hospitals NHS Foundation Trust
- Portsmouth Hospitals NHS Trust
- Royal Cornwall Hospitals NHS Trust
- Royal United Hospital Bath NHS Trust
- Salford Royal NHS Foundation Trust
- Sherwood Forest Hospitals NHS Foundation Trust
- The Hillingdon Hospital NHS Trust
- The Queen Elizabeth Hospital King's Lynn NHS Trust
- The Royal Wolverhampton Hospitals NHS Trust
- University Hospitals Coventry and Warwickshire NHS Trust
- West Hertfordshire Hospitals NHS Trust
- West Suffolk Hospitals NHS Trust
- Wrightington, Wigan and Leigh NHS Foundation Trust

We would like your feedback

For more copies of this booklet or to feed back about how useful it is, please contact the Improving Lung Cancer Outcomes Project (ILCOP) team on: +44 (0)20 3075 1247 or via email at: ceeu@rcplondon.ac.uk

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