Improving diagnostic pathways for patients with suspected lung cancer

Executive summary

Accelerate, Coordinate, Evaluate (ACE) Programme

An early diagnosis of cancer initiative supported by:
NHS England, Cancer Research UK and Macmillan Cancer Support

ACE Lung Pathway Cluster
March 2017

About the ACE Programme

The Accelerate, Coordinate, Evaluate (ACE) Programme is an early diagnosis of cancer initiative focused on testing innovations that either identify individuals at high risk of cancer earlier or streamline diagnostic pathways. It was set-up to accelerate the pace of change in this area by adding to the knowledge base and is delivered with support from: NHS England, Cancer Research UK and Macmillan Cancer Support; with support on evaluation provided by the Department of Health's Policy Research Units (PRUs).

The first phase of the programme consisted of 60 projects split into various topic-based clusters to facilitate evidence generation and learning. The second phase (pilots live from January 2017) comprises five projects exploring Multidisciplinary Diagnostic Centre (MDC) based pathways. The learning from ACE is intended to provide ideas and evidence to those seeking to improve local cancer services. The evaluations and findings are produced independently, and are therefore, not necessarily endorsed by the three supporting organisations.

Introduction

The earlier diagnosis of lung cancer will save lives. Recent NICE Guidance (NG12) has lowered the threshold for suspected cancer referrals to ensure more people are investigated early. As well as improving clinical outcomes, this change will put additional pressure on diagnostic services. It is therefore important that lung cancer pathways are organised to be as effective and efficient as possible and ensure patients are given their diagnosis as soon as possible.

The ACE Lung Cancer Pathways Cluster has over the past two years sought to identify the practices that are likely to improve pathway performance and patient experience.

Purpose

The focus of this study is on *managed* lung cancer pathways from referral to diagnosis. The aim of this report and its supporting documentation is to share practical learning, relevant information and useful tools to a wider audience.

Six ACE projects have helped us learn about ways to achieve quicker access to CT (computed tomography), about using data to drive service improvement, and about ways of maximising radiology input and improving communications. In addition to learning gained from ACE projects, emerging themes were also explored through a telephone survey and national data analysed to improve understanding of lung pathway configurations currently in place.

All of these activities have been progressed with the active involvement of national lung experts and in close cooperation with the Lung Cancer Clinical Expert Group (LCCEG), NHSE. In parallel to ACE, the LCCEG developed a National Optimal Lung Cancer Pathway (NOLCP) and associated service guidance, both of which are due to be published in 2017 and are referenced in this report.

The structure of this report follows the stages of a lung cancer pathway up to diagnosis. It starts with sections on what happens following an abnormal or normal chest x-ray (CXR) report, explores whether CT should happen before or after the outpatient appointment (OPA) and how further diagnostic tests are organised. In addition, there are separate sections on radiology and the role of data analysis in driving service improvement. More detailed information on each of the six ACE lung cancer pathway projects are included in the appendices and a variety of supporting documents are provided on the ACE website[1].

Context

Survival for lung cancer patients is intimately related to the stage at diagnosis. Data for lung cancer patients diagnosed in England in 2012 (McPhail et al, 2015) [2] reveals that 49% of lung cancers were diagnosed at stage 4, when survival rates are poor. One year survival rates for those that present at stage 4 were only 14.6% for males and 19.3% for females, as opposed to 81.2% (males) and 85.1% (females) for those who are diagnosed with stage 1 lung cancer.

This relationship between earlier diagnosis and improved clinical outcomes is acknowledged by NHS England, and is a key aim of the current cancer strategy, *Achieving World-Class Cancer Outcomes. A Strategy for England 2015-2020* (July 2015) [3].

Conclusions

This report shows that concerted effort by local teams can achieve significant positive change. Change is more likely to occur if primary and secondary care clinicians work together with encouragement and support of senior management and local commissioners.

No one single lung cancer pathway configuration holds the answer to best performance but the trusts that manage to achieve tight well-coordinated arrangements with same-day testing where appropriate, are achieving shorter pathways to diagnoses.

The trusts themselves identify the need to have good internal and external relationships along with a flexible approach and 'can do' attitude, as important characteristics of successful teams, which in turn achieves successful pathways.

This paper points the reader towards 'better practice' examples and shares expert views on key aspects of the pre-diagnostic lung cancer pathway. Each section of the report includes a set of specific topic related conclusions. A set of general conclusions and recommendations have also been produced and are set out below.

A. There is a range of different pathway arrangements in place across lung cancer providers, a significant proportion of which are not in line with current best practice.
B. The implementation of straight-to-CT arrangements can achieve quicker access to CT, and therefore a quicker diagnosis for people that have had an abnormal CXR result.
C. Providing a timely – and possibly a GP direct access - route to CT for people who have had a normal CXR result, but continue to have clinical symptoms and/or concerns will pick up some cancers and will provide welcome reassurance to many others.
D. The analysis and use of comparative data within a constructive team environment can be a powerful tool in driving performance improvement
E. Preparing patients fully (so they know what might happen) before referral will improve patient experience and reduce delays in the cancer pathway.
F. By providing all relevant clinical information on CXR referral forms, GPs can reduce the potential for later delays and/or unnecessary procedures.
G. Radiology has a key role to play in the lung cancer pathway and significant benefits can be achieved by rationalising CXR reporting and standardising communications between radiologists and GPs.
H. Clinical leadership, teamwork and having good relationships with colleagues across departments and across organisations (secondary/tertiary) as well as flexible approaches and 'can do' attitudes are seen by trusts as key to better performance.
I. Enthusiastic clinicians can play a key role in driving service improvement and/or maintaining high quality services but they need to be part of a supportive management structure and to have appropriate levels of admin/project management support.
J. The telephone survey analysis did not identify many pathway features that were more prominent in trusts that perform well on 62/31 day median performance, but better performing trusts had more same-day testing arrangements in place and were smaller than those who performed less well on those standards.

Recommendations

Local Cancer Alliances and Clinical Commissioning Groups (CCGs) will want to ensure local providers have read this report and are given time and support to produce a plan of action to improve their lung cancer services.

These recommendations should be considered alongside the topic based conclusions at the end of each section of this report.

1. Primary and secondary care clinicians should review the range of lung cancer pathways available locally as a set, and in particular:
    ➤ Identify what route GPs should use if concerns remain following a normal CXR result.
    ➤ Review what actions are taken by whom when an abnormal CXR result is detected.
    ➤ Consider patient communications to ensure they are prepared fully before referral.

2. Local cancer teams should monitor the order and timing of key events including:
    ➤ The proportion of 2WW and consultant upgrades that have CT prior to the OPA
    ➤ Request-to-report turnaround times for CXR, CT, PET CT, EBUS – and check whether they are in line with the National Optimal Lung Cancer Pathway (NOLCP)

3. Local trusts should review their lung cancer workforce in relation to:
    ➤ The number of radiologists/radiographers that report GP requested CXRs and consider whether rationalising this task to fewer people could be advantageous.
    ➤ The proportion of 2WW and consultant upgrade patients first seen by a lung cancer specialist (as opposed to a respiratory physician without a lung cancer specialty).

4. Local services should consider whether there is further opportunity for coordinating tests so they occur on the same day, to reduce hospital visits and unnecessary delay.

5. Lung cancer teams should review their arrangements for deciding on post-CT diagnostics, taking into account the benefits that can be achieved by having a diagnostic Multi-disciplinary Team (MDT) approach, with the aim of ensuring that only the right tests are undertaken and in the right order.

6. Services should review local patient tracking arrangements within the cancer team and in radiology to ensure the system is robust, efficient, and fully operational.

7. Lung cancer services should organise regular team 'time outs' to review data reports, local intelligence and patient feedback on how the pathway is working. When areas of weakness are identified, consider options and develop plans to address.

References

1) The ACE Programme, www.cruk.org/ace, (accessed February 2017)
2) Independent Cancer Taskforce. (2015). *Achieving world-class cancer outcomes a strategy for England 2015–2020.* NHS England.
3) McPhail S, Johnson S, Greenberg D, Peake M, Rous B. Stage at diagnosis and early mortality from cancer in England. Br J Cancer. 2015; 112, S108-115.