Rapid diagnostic and assessment pathways

Implementing a timed lung cancer diagnostic pathway

A handbook for local health and care systems

April 2018
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- Given regard to the need to reduce inequalities between patients in access to, and outcomes from, healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities.

This information can be made available in alternative formats, such as easy read or large print, and may be available in alternative languages, upon request.

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Rapid diagnostic and assessment pathways

Rapid diagnostic and assessment pathways illustrate how timely and effective care can be provided to patients presenting with cancer symptoms. Delivery of the pathways will support us to provide the highest quality care to our patients, and reduce variation in patient access to diagnostic and treatment options.

This handbook sets out how diagnosis within 14 days and diagnosis within 28 days can be achieved for the lung cancer pathway.

We have identified useful resources that can support you with implementation, and have highlighted the key role of cancer alliances in delivering large scale transformation across whole systems.

The lung cancer timed pathways draw on the National Optimal Lung Cancer Pathway (NOLCP), which was produced by the NHS England Clinical Expert Group for Lung Cancer in August 2017 and sets out how to deliver the pathway from referral to diagnosis.

Clinical Expert Groups (CEGs) bring together clinical leaders who provide tumour specific clinical expertise. Their role includes ensuring that advice on best practice cancer pathways is evidence-based and is available for anyone involved in the improvement of cancer services. This includes cancer alliances, commissioners, clinicians, managers, and patients.

This guidance complements existing resources such as NICE Guidelines (including NG12) and should therefore be read alongside such guidance.

The National Cancer Vanguard is a leader in developing and defining best practice timed pathways. The Vanguard includes Greater Manchester Cancer, RM Partners, and the University College London Hospitals Cancer Collaborative.

The ‘faster pathway’ outlined in this document has been drawn from pathway redesign at University Hospitals of South Manchester.

For any questions about this document please email the NHS Cancer Programme at england.cancerpolicy@nhs.net.

Professor Chris Harrison
National Clinical Director for Cancer

Professor David Baldwin
NHS England Clinical Expert Group for Lung Cancer

Mr David Shackley
Medical Director, National Cancer Vanguard
World class cancer care in England

The national cancer strategy sets out an ambitious aim for the NHS to make significant progress in reducing preventable cancers, increasing cancer survival and improving patient experience and quality of life by 2020.

Survival rates for cancer in England have never been higher, and overall patients report a very good experience of care. However, we know there is more we can do to ensure patients are diagnosed early and quickly, and this will have a major impact on survival. We also know that patients continue to experience variation in their access to care, which needs to be addressed.

Early diagnosis, fast diagnosis, and equity of access to treatment and care are central to the National Cancer Programme and the transformation of services we want to achieve by 2020/21.

Faster Diagnosis Standard (FDS)

We are implementing a new diagnostic standard for cancer that emphasises the importance of receiving a diagnosis or ruling out of cancer within 28 days. For patients who are diagnosed with cancer, this means treatment can be offered earlier. For those who are not diagnosed with cancer, this communication of an ‘all clear’ reduces the anxiety felt at a very stressful time.

Cancer alliances are leading their local commissioners and providers to drive earlier and faster diagnosis. The rapid diagnosis and assessment interventions they are putting in place now will help to ensure the Faster Diagnosis Standard is met for patients when fully introduced from April 2020.

The new Cancer Waiting Times system should be used to support the collection of the new faster diagnosis data items. This data can be used to audit how long it takes for patients to have their diagnosis communicated to them, and understand where to make improvements to shorten pathways. The focus is on reducing variation for patients and providing a consistent timed pathway.

Teams may improve beyond the pathways in this handbook, to radically shorten the diagnostic time period further, building on local innovation to deliver sustainable pathways. The aim is to enable patients to have their diagnosis communicated to them in the shortest time possible, having experienced high quality care.

E-referrals service (eRS)

The NHS e-Referral Service is the process for referring all consultant-led first outpatient appointments from 1 October 2018. Resources for implementation are available on the NHS Digital website.
How to achieve success:

- **Engage with patients** throughout the pathway redesign and implementation stages to ensure that changes will benefit your patients in terms of clinical outcomes and patient experience.

- **Ensure board or executive level sponsorship** in each organisation to ensure prioritisation of pathway implementation (board-level reporting of progress and diagnostic performance)

- **Establish a cross-system implementation team** to enable access to limited resources, implement changes, overcome organisational divisions and structures, and avoid ‘silo’ working. This could include GPs, consultants, clinical nurse specialists, pathway navigators, cancer alliance leads, and CCG and Acute trust leads (e.g. contracts, IT).

- **Identify clinical champions across the pathway**, across disciplines and departments, to ensure clinical leadership and endorsement on the ground. This can help you to quickly resolve problems, and develop and implement additional solutions to service challenges throughout implementation.

- **Engage and communicate regularly with key stakeholders** throughout the implementation process. Use local networks for communication, such as newsletters and GP events, to build awareness. Sharing positive feedback can be powerful.

- **Establish workforce development for teams** in order to support new ways of working across the whole pathway (e.g. reporting radiographers with buddyng between individuals with different levels of experience, joint masterclasses on the pathway).
Lung cancer is the third most common diagnosed cancer in England, but accounts for the most deaths.

- **The UK has low lung cancer survival** when compared with European comparators. Estimated five year survival (2010-2014) among the lowest in Europe. We are 5-7 percentage points behind leading countries such as Germany, Latvia, Norway, Sweden and Switzerland.

- For lung cancer patients in England diagnosed 2011 to 2015, **one-year age-standardised net survival was 38.5%**. This varied by cancer alliance with a range of 34.5-42.7%. This is **one of the widest ranges in survival across cancer alliances** of all cancers.

- For lung cancer patients in England followed up to 2016, **five-year survival was 15.2%**. This varied by cancer alliance with a range of 12.4-17.6%.

- In 2016, only **25.7% of all lung cancers were diagnosed at an early stage**. This varied by cancer alliance with a range of 21.4 to 32.9%.
The request

“The National Optimal Lung Cancer Pathway is potentially the most important initiative to improve times to treatment, increase the proportion of patients treated through better performance status, and in reducing variation in clinical practice. Performance status worsens rapidly in some patients and is one of the strongest independent predictors of both receipt of treatment and outcome.

Many clinicians have embraced the pathway as a method to improve speed of diagnosis, adherence to guideline-driven management and improve patient experience. Outcomes are anticipated to improve to those seen in other countries.”

Professor David Baldwin
NHS England Clinical Expert Group for Lung Cancer

Features of a faster pathway

- Provided at point of referral, information resources can empower patients and help to manage anxiety by setting out what can be expected from the diagnostic process (e.g. tests, timings and communications). This information can benefit patient experience and also encourage compliance, which will reduce delays along the pathway (i.e. reduced DNAs and re-booking of appointments). Best when co-produced with patients as part of a pathway improvement programme.

- Implementing the following service models can support services to reduce variation and make improvements to patient flow:
  - Clinical triage to optimise direct access diagnostics, ensure patients in the ‘right place, first time’
  - One stop models for a faster diagnostic pathway, particularly effective alongside hot reporting
  - Standardised diagnostic bundles with simultaneous booking of all likely investigations
  - Networking to optimise use of existing resources and expertise, particularly useful for improving radiology reporting turnaround times and access to specialist investigations (e.g. hub and spoke for PET-CT).

- Workforce development for teams to support new ways of working across the whole pathway
  - Co-location of medical, nursing, navigator and support staff to improve communication, aid business intelligence, reinforce team integration, and enable effective day-to-day working
  - Patient navigators for administrative support and value in tracking patients for improved flow
The benefits

For patients:
- Empowerment from information about the diagnostic process provided at point of referral
- Reduced anxiety and uncertainty of a possible cancer diagnosis, with less time between referral and hearing the outcome of diagnostic tests
- Improved patient experience from fewer visits to the hospital, particularly with ‘one stop’ services
- Potential for improved survival by using the faster pathway to prevent patient deterioration while waiting for tests and treatments

For clinicians:
- Using a nationally agreed and clinically endorsed pathway to support quality improvement and reconfiguration of lung cancer diagnostic services
- Working across primary and secondary care to ensure high quality referrals into a streamlined service that gets the patient to the right place, first time
- Improved ability to meet increasing demand and ensure best utilisation of highly skilled workforce

For systems:
- Reduce demand in outpatient clinics (when implementing the 14 day pathway, the Cancer Vanguard (Greater Manchester Cancer) found that approx. 75% patients could be discharged from the cancer pathway after their initial CT scan and triage)
- Reduced medically unjustifiable delays in care.
- Improved performance against national standards (particularly 62 day performance and the new 28 day faster diagnosis standard)
- Improved quality, safety, and effectiveness of care with reduced variation and improvement in outcomes
## Rapid diagnostic and assessment pathways

### World class cancer care in England

### System transformation

#### The lung cancer diagnostic pathway
- The case for change
- The request
- The benefits

### Timed pathways
- **28 day**
- **14 day**

### Additional information
- Audit tool
- Resources

### 28 day pathway\(^1\)

<table>
<thead>
<tr>
<th>Day -3 to 0</th>
<th>Day 0 to 3</th>
<th>Day 1 to 6</th>
<th>Day 14</th>
<th>Day 21</th>
<th>Day 28</th>
</tr>
</thead>
</table>
| Direct access \(\text{CXR (urgent or routine)}\) | Direct access or escalation to CT \((\text{same day/within 72 hours})\) | Clinical triage \(\text{Led by radiology or respiratory based on local protocol}\) | Fast track lung cancer clinic \(\text{(consultant-lead)}\)
Meet CNS; diagnostic process plan, treatment of co-morbidity and palliation, treatment of symptoms | PET CT, spirometry \((\text{at least})\)
Detailed lung function and cardiac assessment/ \(\text{ECHO (as req'd)}\)
Further investigations | Communication to patient on outcome \((\text{cancer confirmed or all-clear provided})\) |

- **Patient information**
  - Provided in primary care

- **Direct biopsy** \((\text{option})\)

- **CT result normal**
  - Patient informed; management according to local protocol

- **Cancer unlikely**
  - Patient informed; management according to local protocol

### Additional information

**Maximum target times provided**

**Footnotes:**

1. This pathway represents a high-level view of the referral to diagnosis section of the NHS England National Optimal Lung Cancer Pathway (NOLCP). Please see the ‘Resources’ pages for more information on this pathway and how to implement it in full.

2. It is envisaged that when the new guidance on multidisciplinary team meetings is published in summer 2018, there will be a recommendation that some patients on clear and agreed cancer pathways may be discussed more briefly either at the beginning, or end, of the MDT.
### 14 day pathway

<table>
<thead>
<tr>
<th>Day 0 to 5</th>
<th>Day 5 to 14</th>
<th>Day 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct access CXR, CT or escalation to CT&lt;br&gt;Hot reported</td>
<td>Same day clinical triage&lt;br&gt;(consultant-led)</td>
<td>MDT¹</td>
</tr>
<tr>
<td><strong>Patient information</strong>&lt;br&gt;Provided in primary care</td>
<td>Fast track lung cancer clinic&lt;br&gt;(consultant-led)&lt;br&gt;Standardised diagnostic ‘bundles’ requested simultaneously on a nine day pathway; same day results clinic</td>
<td><strong>Communication to patient on outcome</strong>&lt;br&gt;(cancer confirmed or all-clear provided)</td>
</tr>
<tr>
<td><strong>Cancer unlikely</strong>&lt;br&gt;Patient informed; management according to local protocol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Maximum target times provided**
Audit tool

This tool can be used to undertake a baseline audit, identify areas for improvement, select measurements for improvement, and then conduct re-audits as part of continuous improvement.

<table>
<thead>
<tr>
<th>Day</th>
<th>Pathway step</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3-0</td>
<td>Direct access to urgent or routine CXR from primary care – arrangement should be in place for hot reporting (or within 24 hours), action on abnormal result is secondary care responsibility. Escalation from CXR to CT (same day/within 72 hours) – ‘straight-to-CT’ arrangement in place as described in NOLCP implementation guide. Direct access to CT (same day/within 72 hours) – Arrangements can be put in place with primary care for patients with normal CXR but when clinical symptoms and risk factors continue to cause concern. Timeframes should be the same as for those with abnormal CT.</td>
</tr>
<tr>
<td>0-3</td>
<td>Triage by radiologist or lung physician – local protocol developed to facilitate streamlined triage process. If lung cancer can be ruled out there is no need to see patient in a cancer clinic. Local arrangements to be made with primary care over redirection to respiratory clinic or refer back to primary care. Direct biopsy option – for when initial triage suggests cancer but patient unlikely to be suitable for curative treatment, consider developing local protocol.</td>
</tr>
<tr>
<td>1-6</td>
<td>Fast track lung cancer clinic - meet lung cancer nurse specialist (diagnostic process plan, diagnostic planning meeting prior to clinic, treatment of co-morbidity and palliation/ treatment of symptoms). Curative Intent Management pathway - test bundle requested at first outpatient appointment including at least PET-CT spirometry, with lung function and cardiac assessment/ ECHO as required. Consider local arrangement / networking to reduce PET-CT delays at this stage.</td>
</tr>
<tr>
<td>14</td>
<td>MDT and discussion of treatment options (It is envisaged that when the new guidance on multidisciplinary team meetings is published in summer 2018, there will be a recommendation that some patients on clear and agreed cancer pathways may be discussed more briefly either at the beginning, or end, of the MDT).</td>
</tr>
<tr>
<td>21</td>
<td>Follow up in Lung Cancer Clinic: cancer confirmed and treatment options discussed, or if no cancer diagnosis then manage/discharge (this should be at earliest opportunity e.g. by day 1-6 stage if CT excludes cancer). Any further investigations following MDT will have been completed by day 28.</td>
</tr>
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Guidance from the NHS England Clinical Expert Group on Lung Cancer:

- The National Optimal Lung Cancer Pathway (NOLCP) provides a detailed roadmap from referral to initiation of treatment.

- The NOLCP Implementation Guide provides practical examples of how service reconfiguration can facilitate NOLCP implementation.

- Clinical Advice for the Provision of Lung Cancer Services provides cancer alliances and commissioners with the knowledge they require to commission high quality lung cancer services.

Other resources for lung cancer pathway improvement:

- The Cancer Vanguard (GM) RAPID Pathway was developed and tested as a variation on the NOLCP. This resource includes evidence based MDT algorithms, final report and case for change

- The Improving Lung Cancer Outcomes Project (ILCOP) at the Royal College of Physicians

- The ACE Programme report, ‘Improving diagnostic pathways for patients with suspected lung cancer’

NHS England Change Model:

- The Change Model is a framework for any project or programme seeking to achieve transformational, sustainable change (refreshed on 4 April 2018).

Resources from NHS Improvement:

- The Improvement Hub provides a number of useful resources that can support service improvement including guidance, modelling tools, and webinars.

- The Rapid Improvement Guide: Sustainable Delivery of the 62 Day Cancer Standard sets out how these resources can be used to reduce waiting times and improve performance against the 62 day standard, with a focus on three elements:
  - Reducing the time to first appointment
  - Reducing the number of pathway steps
  - Reducing the overall size of the patient tracking list (PTL)

Cancer Alliance Workspace

If a link has not been provided to a resource, it will be available on the Future NHS Collaboration Platform. Cancer alliances access this workspace for national guidance, for resources, and to share learning.

Acknowledgements: This handbook was developed by the NHS Cancer Programme (with Mr Arun Takhar as Clinical Fellow) and builds on the experience and expertise provided by the Clinical Expert Group for Lung Cancer (Prof David Baldwin as Chair, Prof Sam Janes as Vice Chair, and the Roy Castle Foundation as secretariat), and the National Cancer Vanguard (in particular, Dr Richard Booton, Simon Evans, Dr Matthew Evison, Nicola Hunt, Katie Morris, Dr Neal Navani, Dr Thomas Newsom-Davies, Claire O’Rourke, Prof Kathy Pritchard-Jones, Mr David Shackley, and Dr Nicholas van As).