**COMMISSIONING GUIDANCE FOR THE WHOLE LUNG CANCER PATHWAY**

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| **Commissioning guidance No** |  |
| **Service** | **Lung Cancer Whole Pathway** **(including direct and specialised commissioning)** |
| **Commissioner Lead** |  |
| **Provider Lead** |  |
| **Period** | **2024/25** |
| **Date of Review** | **April 2025** |

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| **1.0 Executive summary** |
| This commissioning guidance sets out the key evidence-based priorities for commissioning high quality, patient-centred services for people wherever they live. Account is taken of the need to ensure value for money and better use of resources. It supports an integrated approach to commissioning, crossing organisational boundaries when this benefits patients. A joined-up approach to direct and specialised commissioning ensures the pathway best serves the patient. It provides a method for implementing the ambitions of the NHS Long Term Plan. The updated national optimal lung cancer pathway (NOLCP) describes the timed clinical pathway.Lung cancer is the leading cause of cancer mortality in the UK and the world. This is because it is common, with most people presenting with late-stage disease when treatment has a limited effect on mortality. Although tobacco smoking causes around 85% of lung cancers, well over half of people are ex- or never smokers at presentation. Almost 7000 people develop lung cancer unrelated to smoking each year in the UK (about the same number as for ovarian or stomach cancer). People in the most deprived socioeconomic quintile of the population are twice as likely to develop lung cancer as those in the most affluent quintile. Early diagnosis is vitally important, both to increase curative treatment of cancer detected at an early stage and, if late stage, by diagnosing it at a time when patients are fit enough to benefit from modern therapy.Recent advances in cancer genomics, molecular pathology, imaging and radiotherapeutic technologies have resulted in improved standards of cancer care and outcome. Thus, the diagnosis, staging, fitness assessment, treatment, palliative care, patient support, navigation and information sharing of lung cancer are complex, necessitating specialist expertise that should be locally available. A larger multi-professional trained workforce is required to implement the NOLCP and deliver evidence-based standards of care throughout the patient journey.Marked variation in treatment rates are seen in England with associated variation in outcomes which have shown little improvement. Better outcomes are associated with superior facilities and faster diagnostic pathways. Major initiatives have shown clear local improvements, exemplified by the increase in early-stage lung cancer detection in areas covered by a Targeted Lung Health Check Programme. Tackling variation is essential if we are to achieve the outcomes seen in other European countries. Bringing all lung cancer services up to the current average performance would substantially improve the UK performance compared with other countries within the International Cancer Benchmarking Partnership. There is evidence that the way in which cancer services are structured in the UK’s “hub and spoke” model, is in part responsible for variation. Whilst the concentration of expertise and resources in large centres promotes clinical excellence, it has been shown that these services do not benefit people first diagnosed with lung cancer outside the centre as much. English Cancer Alliances have a crucial role in ensuring all people have equal access, but the variation remains, and the root cause is the disparity in expertise and resource by geography. The solution, proposed in an English Cancer Alliances paper in 2017, is to ensure the requisite level of expertise and resource is available and accessible through smarter commissioning. This paper is an update adapted to the contemporary NHS. |
| **1.1 Key priorities for commissioning services for people with suspected and confirmed lung cancer (see more detailed information and evidence review in the appendix section A2)**The key priorities concern three broad areas: early diagnosis, reducing variation and living with cancer. This is because early diagnosis is central to better outcomes through improving both early-stage detection and maximising opportunities for treatment of later stage disease. Removing variation will improve outcomes by following the standards set by the best performing services. Improving supportive care services concerned with living with cancer, which is now considerably longer for many patients, ensures that patients are fit for treatment through pre- and rehabilitation and improves quality of life.1.1.1 Early diagnosis (A1.1)1. **Public awareness**

Commission local, coordinated campaigns that increase public awareness of the varying symptoms and signs of lung cancer and effectiveness of modern treatment. Methods should be tailored to local factors including socio-demographic profile. Ensure that these awareness campaigns are linked to prompt and effective assessment, recognition and referral.1. **Recognition and referral**

Commission pilots of new approaches to improved access to assessment such as self-referral chest X-rays and Cancer Concern Hotlines. Commission the use of primary care based assessment of the risk of lung cancer, including, where available, the use of decision support tools, so that investigation with chest x-ray or direct referral to secondary care is better targeted to those most at risk. Ensure referral is made by the next working day. Ensure safety netting is in place for those at lower risk who continue to have symptoms despite treatment or observation. Measures to include:* face-to-face assessment;
* patient-facing primary care staff are up to date with presenting symptoms;
* early assessment;
* awareness of possibility of lung cancer in people who do not smoke;
* a chest X-ray if a first course of antibiotics has failed.
1. **Lung Cancer Screening**

Support the implementation of the lung cancer screening programme through commissioning the required support services. Ensure that people at risk and eligible for screening in 1 and 2 above are integrated into the programme. Ensure adequate resources to comply with national standards and quality assurance measures.1.1.2 Reducing variation (A1.2)1. **Access to specialist care**

Commission the amount of specialist time as specified in section 5.4 to ensure all patients have access to the most advanced care. Recommendations 5-8 should be a corollary of this recommendation, emphasising its central importance in reducing variation. 1. **Diagnosis and staging**

Commission services that ensure NICE guidance on diagnosis and staging, and the National Optimal Lung Cancer Pathway is followed so that:* 1. Efficient investigation bundles, tailored to the patient’s fitness and wishes, are offered to all patients.
	2. The maximum timings in each step of the NOLCP are met or bettered to achieve a complete pathological diagnosis including tumour typing and sub-typing, and analysis of predictive genetic profiling so that treatment begins after a maximum of 49 days. The timings for each step are given in the one-page pathway summary; key steps are 14 days for all investigations to be completed and a 14-day turnaround from diagnostic sample acquisition to complete molecular analysis result.
1. **Treatment with curative intent**

Commission services that ensure people with lung cancer have the best chance of being cured of their cancer by following NICE guidance which makes recommendations about surgery, radiotherapy, and combination treatment. See appendix for key recommendations.1. **Treatment with palliative intent**

Commission services that ensure people with advanced lung cancer have the best chance of treatment that gives long term survival and maintains overall quality of life. Follow NICE guidance including regular updates to systemic anticancer therapy. Ensure access to those drugs only available through the Cancer Drugs Fund. See appendix for key recommendations.1. **Equality considerations**

Ensure that services are commissioned that address health inequalities arising from sociodemographic and geographic factors by addressing observed difference in access to 1-7 above.1.1.3 Living with lung cancer (A1.3)1. Commission services that ensure people have equity of access to care that improves aspects of living with cancer in line with the National Cancer Survivorship Initiative and underpinned with the Living with Cancer agenda. See appendix for key recommendations.
2. Commission services that ensure people with stage IV (advanced, incurable disease), irrespective of other treatments offered, are also routinely offered a specialist palliative / supportive care assessment at the time of diagnosis to improve quality of life, reduce depression and improve satisfaction with care.

 1. Commission services that ensure that people with known or suspected lung cancer have information about their disease and options for treatment presented to them in a format they can understand, to enable them to make an informed choice, and in line with NICE guidance.
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| 2. Population Needs |
| **2.1 National and local context*** This national commissioning guidance sets out the key evidence-based priorities for commissioning high quality, patient-centred services for people wherever they live (section 1). A more detailed evidence review is available in the appendix section A2. This evidence-based approach will ensure the best value interventions and improve equality. An effective lung cancer service depends on local services working seamlessly with specialist services that are commissioned directly by [ADD COUNTRY SPECIFIC DETAIL] NHSE.
* The guidance covers services for diagnosis of suspected lung cancer and staging and treatment for confirmed lung cancer. Separate specialist service specifications / commissioning guidance for radiotherapy, thoracic surgery and systemic anticancer therapy may be available from [add country specific detail] NHSE but should not conflict with any of the recommendations in this commissioning guidance. Many of the recommendations made here will also ensure high quality care for some non-lung cancers that spread to the lung as well as for people with malignant mesothelioma.
* **2.2 The Burden of Lung Cancer**
* Lung cancer is the most common cause of cancer death in men and women accounting for more deaths than breast and bowel cancer combined. The crude incidence rate in the UK 2016-18 was 77.6 per 100,000 population in males and 69.5 per 100,000 population in females. There were 48,594 newly diagnosed cases of lung cancer in the UK, 25,284 in males and 23,265 in females. For the last 5 years, there has been a consistent increase in the crude incidence, with over 1000 extra diagnoses in the UK each year, although this was not the case for 2020/21 due to the Covid pandemic. In the UK, 34,771 deaths were caused by lung cancer in 2016-18. Mortality rates for the most deprived socioeconomic quintile are 170% that of the least deprived.
* One-year and 3-year net survivals for non-small cell lung cancer (NSCLC) in England were 48.3.% and 25.3% for women and 40.8% and 19.7% for men for lung cancers diagnosed in 2010-2014. Whilst this is improving, it is still the lowest of the countries included in the International Cancer Benchmarking Partnership(1). There is evidence to suggest this is likely to be the result of both late presentation and/or late referral to specialist care and under treatment(2, 3). See Appendix section A 2.2 for more detail.
* Commissioning of services that currently achieve the best outcomes in the UK would be expected to result in a significant improvement in these survival rates as well as improving symptom control and experience of care for patients. Thus, the national emphasis should be to reduce variation by ensuring all services achieve the standards achieved by the best (and the best improve further).
* **2.3 The Clinical Problem**
* 2.3.1 Types of lung cancer
* Lung cancer is classified into non-small cell lung cancer (NSCLC) accounting for the majority of cases, and small cell lung cancer (SCLC) accounting for approximately 8%. NSCLC has two major sub-types; squamous cell carcinoma and adenocarcinoma. Approximately 6 to 12% of the latter have driver mutations for which targeted biological systemic therapies are currently available. Many patients may also be suitable for immunotherapy. The number of targeted treatments is increasing such that timely immuno-genetic classification is essential because of the implications for treatment. SCLC is generally a more aggressive tumour with NSCLC being more variable. There are several less common types of lung cancer.

2.3.2 Prevention of lung cancerAlthough environmental factors such as air quality also play a part, the reduction of tobacco smoking has resulted in a large reduction in cancer incidence in the UK and other developed countries. Further reduction of smoking is essential for prevention of many diseases and in lung cancer it is known that people with lung cancer who continue to smoke have worse outcomes at all stages. The well-established smoking cessation services should be recommended to patients at every opportunity, along with smoking cessation advice, on the basis that this would improve survival and mortality. Because smoking cessation rates are greater in the context of lung cancer screening (LCS), bespoke smoking cessation interventions should be implemented within the programme.2.3.3 Screening for lung cancerIn September 2022, the UK National Screening Committee (UKNSC) recommend that LCS with low-radiation dose computed tomography (LDCT) be offered to people aged 55 to 74 years who are determined to be at higher risk of lung cancer. This was following a detailed review of clinical and cost effectiveness which drew on the latest evidence including that generated by the Targeted Lung Health Check (TLHC) program. The latter is a programme in the early stage of phased implementation targeted in areas in England with high incidence and mortality from lung cancer. It has been very successful in detecting people with potentially curable early-stage cancer and increased rates of early-stage lung cancer in the most disadvantaged socioeconomic groups such that the rate is currently higher than in the least disadvantaged. LDCT is the only method that has shown efficacy, although several biomarkers are the subject of research. Full coverage of the eligible population is planned for 2028/29.* 2.3.4 Presentation of lung cancer
* The most common presenting symptoms are breathlessness, cough, haemoptysis, chest or shoulder pain and weight loss. All these symptoms are non-specific so awareness of combinations of symptoms in conjunction with baseline risk factors is the best way to identify people with lung cancer. Without this approach, it has been shown that simply doing more chest x-rays does not necessarily increase the chance of diagnosing patients earlier. However, self-referral for chest X-rays does seem to be associated with earlier detection. As discussed above, the late diagnosis of lung cancer is responsible for a significant proportion (around 35%) of patients being diagnosed through the emergency route that is both distressing and associated with a very low 1-year survival of 13%.
* 2.3.5 Diagnosis, staging and fitness assessment
* For the most cost-effective treatment to be offered to patients, the diagnosis, stage, and fitness assessment have to be accurate. This is complex and is clearly described in NICE NG122 and the NOLCP. (<http://pathways.nice.org.uk/pathways/lung-cancer>). Multiple investigations are often required so it is important to obtain the maximum diagnostic and staging information sufficient to guide management, with least risk, from each test. Following the Diagnostic Standards of Care, as set out in the NOLCP is recommended to avoid over-reliance on the multidisciplinary team (MDT) and improve time to treatment. All patients must have access to the expertise and technology needed. Many services run “diagnostic MDT” meetings as a way of focusing expertise on this important aspect of care and this is regarded as good practice.
* 2.3.6 Treatment
* **NSCLC**
* Lung cancer treatment is determined by stage, morphology (cell type of cancer), biomarker status, fitness (as measured by performance status) and patient preference. For early-stage disease in patients who are fit enough, surgical resection is the preferred treatment although for suitable tumours, stereotactic ablative body radiotherapy (SABR) may be offered according to patient preference. For less fit patients with early-stage disease, surgery is still preferred but SABR more often used and for later stage disease not suitable for SABR, other forms of “radical radiotherapy” are given with curative intent. In patients, unsuitable for other curative treatment, radio-frequency ablation (RFA) or microwave ablation can be offered. The treatment of later stage disease where cure is still possible (principally stage IIIa) can be with surgery, radiotherapy, alone or in combination with systemic anticancer therapy (SACT). SACT includes chemotherapy, immunotherapy, targeted therapy or any combination. Following potentially curative treatment, adjuvant SACT improves survival for people with node positive disease and tumours >4cm in diameter; it may include mutation-targeted treatment (currently an EGFR inhibitor). Neo-adjuvant SACT (that is, SACT given pre-operatively where it is thought a complete resection is possible) has also shown similar survival improvements.
* The treatment of advanced NSCLC depends on the sub-type and whether there is an actionable variant (sensitising mutation etc.). The latter may influence both first and second line SACT options. Immunotherapy is another option in first and subsequent line treatment in selected patients. NICE produce a regularly updated series of SACT algorithms (https://www.nice.org.uk/guidance/ng122/resources/treatment-pathways-11189888173).
* There are several other palliative treatments used. These include palliative radiotherapy (for airway obstruction, chest wall pain, metastases, cough control and haemoptysis), endobronchial tumour treatment (brachytherapy, electrocautery, laser ablation, cryotherapy, stent insertion, photodynamic therapy), pleural procedures (fluid drainage, pleurodesis, indwelling catheter) and supportive care (including a full holistic approach and specialist pain control).
* **SCLC**
* For advanced disease and all except stage I SCLC, SACT or chemo-radiotherapy is the recommended treatment. Treatment of SCLC depends on whether the tumour can be encompassed in a radiotherapy field, in which case intensive concurrent chemo-radiotherapy is generally offered to fitter patients. A small subpopulation of stage I SCLC patients may be considered for surgical resection. The palliative treatments and supportive care listed above also apply to people with SCLC with the addition of cranial radiation.
* See latest NICE for SACT in small cell lung cancer and update to NG122 via links: NG122 and TA638

See Royal College of Radiologists Consensus Statement on Radiotherapy for Lung Cancer [Radiotherapy for lung cancer - RCR consensus statements | The Royal College of Radiologists](https://www.rcr.ac.uk/publication/radiotherapy-lung-cancer-rcr-consensus-statements)* 1. **Local context**
* It is necessary to fully evaluate local demand, capacity, and outcomes to ensure that commissioning addresses the need to provide optimum services for lung cancer. Include the following information to establish the extent of the local needs to improve lung cancer outcomes:

2.4.1 Service capacity (see section 4)For each secondary or tertiary care provider:The number of new lung cancer patients seen at the site in one year (for tertiary services this is the sum of all sites, or proportion of sites, served).For each of the following specialities, the total number of senior medical staff **direct clinical care** programmed activity periods (PAs) dedicated to lung cancer:Respiratory medicineMedical Oncology Clinical Oncology Thoracic Surgery (note minimum of at least 3 thoracic surgeons per unit (NHS Service Specification))Thoracic RadiologyPathologyNumber of WTE lung cancer specialist nurses by pay bandNumber of WTE lung oncology coordinatorsNumber of WTE lung cancer administrator support staffNumber of WTE Lung Cancer ManagersNumber of Lung Cancer Data support staffDataThe completeness of the COSD data feed to the NCRAS and National Lung Cancer Audit Availability of servicesThere is evidence from the National Lung Cancer Organisational Audit that the availability of services on site influences how frequently they are used and that they have a positive effect on outcomes(4). This is particularly notable for thoracic surgery and resection rates. Therefore, there should be an assessment of the local availability to inform where services, to be delivered locally or centrally, should be commissioned from.Availability of the preliminary results of the following (within specific time):* PET-CT and report (5 days)
* Ultrasound guided percutaneous biopsy on site (5 days)
* Endobronchial ultrasound (7 days)
* Medical thoracoscopy (7 days)
* Advanced diagnostic facilities (navigational techniques and robotics, 7 days)

Availability of endobronchial palliation (7 days).Pathology turnaround time for sample acquisition to definitive analysis report (14 days)2.4.2 Service demand, quality and performance (A)Number of people diagnosed with lung cancer within catchment population (Hospital Trust)Number of people diagnosed following a LDCT screen.Proportion of patients diagnosed with stage I and II diseaseProportion of patients alive at one and 5 years after diagnosisProportion of patients first seen in secondary care as a result of an emergency or urgent hospital admissionLocal surgical resection rate\* Local surgical resection rate as a percentage of all diagnoses of lung cancer and as a percentage of stage I-II and PS 0-2.Local radical radiotherapy rate (including the SABR rate).Local first-line chemotherapy rate; specify proportion of SCLC patients and NSCLC patients who have stage 4 disease and are performance status 0-1.Local first-line biological therapy rate as a proportion of all patients and of those with confirmed molecular target Local first-line immunotherapy rate (alone or in combination).Proportion of patients entered into clinical trials.Note: further outcomes that may be available include the Key Service Outcomes for thoracic surgery and In England the CQUIN scheme for 2023/24 has 2 indicators that apply to lung cancer and these are updated each year see: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.england.nhs.uk/wp-content/uploads/2022/12/CQUIN-scheme-for-2023-24-indicator-specifications-version-1.1.pdfCQUIN 4: Achieving 55% of referrals for suspected prostate, colorectal, lung, oesophagogastric, head & neck and gynaecological cancers meeting timed pathway milestones as set out in the rapid cancer diagnostic and assessment pathways. CQUIN 10: Achieving 85% of adult patients with non-small-cell lung cancer (NSCLC) stage I or II and good performance status (WHO 0-1) referred for treatment with curative intent, as per the NICE QS17 recommendation. **\***rates of treatment refer to proportions of all patients with lung cancer unless otherwise specified. See also full GiRFT recommendations in the Appendix. |

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| * **3. Scope of the lung cancer service**
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| **3.1 Aims and objectives of service*** 3.1.2 To have a pro-active approach to prevention of lung cancer through smoking cessation. This is a priority for all smoking related diseases but in lung cancer the effect extends to better outcomes throughout the pathway. Primary, secondary, and tertiary providers should include smoking cessation advice and referrals in their management of patients with suspected and diagnosed lung cancer. New tobacco control initiatives, as recommended by the Independent Cancer Taskforce should be supported.
* 3.1.2 To ensure there is awareness of the early symptoms of lung cancer within the general population and high level of awareness and prompt attention given to warning symptoms in primary care with prompt referral into an appropriate diagnostic test or specialist advice, when required.
* Followed by access to expert diagnostic and specialist treatment services.
* 3.1.3 To deliver high quality holistic care for patients with lung cancer to increase survival while maximising a patient’s functional capability and quality of life and to ensure ready and timely access to appropriate supportive care for patients, their relatives, and carers. The service is delivered through primary care (prevention, recognition, referral, and supportive and palliative care), and a local lung cancer multi-disciplinary team (MDT), with specialist providers (diagnosis, treatment, supportive and palliative care).

3.1.4 To achieve excellence in outcomes for lung cancer patients. **3.2 Service description and care pathway*** A service should encourage early referral by primary care through improving awareness and prompt recognition of risk factors and warning symptoms. There should also be prompt referral to the lung cancer service for patients who present through other routes such as emergency admission. All patients in whom lung cancer is suspected should be referred urgently to a Lung Cancer Clinic that is part of an MDT. As this is a common cancer, most acute hospitals will have a lung MDT that is reviewed by national or local peer review. However, it is essential to recognise that diagnosis, staging, and fitness assessment are complex and a high degree of commitment from expert clinicians is essential to ensure the correct treatment is given. (See section 4.3 and section A).
* The complex nature of the pathway, distressing symptoms from the disease itself, diagnostic investigations and treatment mean that patients often have significant need of a patient advocate, guidance, and supportive care whilst they face difficult decisions. The lung cancer nurse specialist (LCNS) provides this element of care. LCNS support patients and carers throughout the whole pathway and provide an essential link between the patient, their relatives/carers, and the variety of clinicians involved in the care pathway and may act as their advocate. LCNS also help with the smooth running of the patient pathway, minimising delays between stages.
* The majority of lung cancer patients present with relatively advanced disease where current treatments present significant challenges and survival may be limited. For these patients, symptom control and palliation are central to any management plan. Patients who are managed by a lung MDT should be allocated a key worker, usually a LCNS. Specialist palliative care services are often required because of the high level of need of patients with lung cancer; there should be sufficient capacity to ensure all patients have access, utilising the Enhanced Supportive Care Initiative. Specialist supportive / palliative care services are often required because of the high level of need of patients; there should be sufficient capacity to ensure all patients with stage IV disease, irrespective of any other treatment offered, have access to a specialist supportive / palliative care assessment. Patients with other stages of disease may also benefit from early referral.
* The lung cancer service should have clear pathways agreed for patients requiring care at the end of life. This will include services within hospitals, community services and services in the voluntary sector.
* As well as being the most important modifiable factor that can reduce the incidence of lung cancer, smoking cessation is an important consideration throughout the pathway. This is because smoking cessation is associated with better outcomes in both early and later stage disease. Patients diagnosed with lung cancer should be advised to stop smoking, especially if they are to undergo radical treatment, as the evidence for benefit here is strongest. Smoking cessation therapies should be offered to all patients and by all care providers involved in the patients’ care.
* It is recommended that commissioners review the most recent National Cancer Peer Review (or equivalent) report when commissioning this service. There is a long-standing National Lung Cancer Audit (NLCA) that reports activity annually, performance and outcomes by trust and cancer network. The new national Cancer Outcomes and Services Dataset (COSD) is now the main source of data for the NLCA and other cancer intelligence purposes.

**3.2.1 The National Optimal Lung Cancer Pathway*** The National Optimal Lung Cancer Pathway [INSERT COUNTRY SPECIFIC DOCUMENT LINKS] is appended to this specification. This represents the pathway all services should aspire to, and work towards. The pathway is designed to meet the Cancer Taskforce target of a definitive diagnosis by 28 days from referral but will also encourage earlier diagnosis and robust and uniform assessment of patients. It is recommended that the Cancer Alliances use this pathway as a template for the radical improvement needed to improve lung cancer outcomes. The NOLCP is endorsed by NICE and GiRFT and is one of the faster diagnosis pathways published by NHS England.
* A detailed lung cancer management pathway is available on the NICE website and is linked to the recommendations in the relevant guidelines and technology appraisals. <http://pathways.nice.org.uk/pathways/lung-cancer#content=view-node%3Anodes-symptoms-and-signs-indicating-urgent-chest-x-ray-and-urgent-and-immediate-referral>
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| **4 Essential service specification for commissioning** |
| * The service should be commissioned in line with the requirements of the NICE Quality Standard for Lung Cancer. These 15 standards have been incorporated into this document and are annotated *(qs [number]****)****.*
	1. **Public awareness**

The service must be supported by local, coordinated campaigns that increase public awareness of the symptoms and signs of lung cancer, and the benefits of making the diagnosis. Methods should be tailored according to local factors such as socio-demographic profile (qs 1). 4.2 **Recognition and referral** Referral to the service must involve the use of primary care based assessment of risk of lung cancer using NICE guidelines, or, where available, the latest decision support tools so that investigation with chest x-ray or direct referral to secondary care is targeted to those most at risk. Ensure referral is made within a maximum of 1 week of presentation to primary care. The chest X-ray should be performed and reported within 1 week of the request when made urgently for suspected lung cancer. Secondary care services should expect increases in the number of referrals as the threshold for referral is lowered. Increases in referrals have already been seen following the awareness campaigns. This has resulted in a lowering of the proportion of referrals that have lung cancer. Thus, it is necessary for secondary care to have a selection system in place to ensure that only suspected cancer patients are seen in the cancer clinic, and the others are discharged back to primary care or referred on to another more appropriate clinic. This is a way of maximising the use of cancer expertise and avoiding the cost of appointments that have little benefit to the patient. Direct referral for CT from primary care supported by an agreed protocol may also provide an effective route into secondary care for some patients and should be considered. Cancer concern hotlines and self-referral for chest X-ray initiatives should be supported and evaluated. Appropriate safety netting needs to be in place for those with persistent symptoms. **See also the National Optimal Lung Cancer Pathway**.**4.3 Access to specialist care**The service must provide specialist time to ensure all patients have access to the most advanced care. A ‘specialist’ is defined here as a clinician who attends the Lung Cancer MDT and devotes a major part of their job plan to lung cancer. Treatment that is accurately tailored to the individual will be more cost effective by avoiding inappropriate and unhelpful treatment as well as increasing treatment rates in those patients that will benefit most. Providing adequate specialist time supports recommendations that reduce variation in access to the best and most cost-effective care thereby being the best use of resources.This commissioning guidance indicates that clinicians may need to travel to different hospitals to ensure equity of access to specialist care. Where it is necessary for patients to travel due to the location of specialised equipment and services there should be standardised national mechanisms for easy and equitable reimbursement for costs incurred by patients and carers, in line with what is currently available for hospital haemodialysis patients.See: [NHS England » NHS Non-Emergency Patient Transport Services (NEPTS) review](https://www.england.nhs.uk/urgent-emergency-care/improving-ambulance-services/nepts-review/#:~:text=Summary%20of%20eligibility%20criteria&text=The%20patient%20is%20likely%20to,have%20a%20significant%20mobility%20need)The time commitments are mostly given in relation to **the number of new patients diagnosed with lung cancer each year per secondary care provider**. Where a service (tertiary) provides services to more than one provider (e.g. thoracic surgery) the number of new patients **is the sum of the number of diagnoses in the providers served** (or the proportion served if there is more than one tertiary service). The recommendations are based on national workforce recommendations and modelling of the better performing centres in England(5-8). Note also the special considerations for other tertiary services in section 4.3.11.The service must provide the following expert time as a minimum commitment: For each secondary care provider, there should be access to:* 10 direct clinical care (DCC) respiratory physician PAs per 200 new lung cancer patients per year and 1 DCC PA per 30 participants in the LCS programme referred to secondary care (work-up or discussion) per week.
* A first appointment at the local hospital with a respiratory physician
* 10 DCC thoracic radiologist PAs per 200 new lung cancer patients, with continuous cover for interventional procedures and 1 PA per 30 participants referred to secondary care from the LCS programme.
* 10 DCC medical oncologist time dedicated to lung cancer per 200 new lung cancer patients\*.
* 10 DCC clinical oncologist time dedicated to lung cancer per 200 new lung cancer patients.
* A minority of MDTs have minimal or no medical oncology input so that the majority of systemic therapy is provided by clinical oncologists. DCC PAs should be a total of 20 per 200 new patients.
* One WTE LCNS per 40 new LC diagnoses per year including one band 7 or above per 80 new diagnoses (see justification for this in the appendix).
* 1.5 WTE palliative care nurse specialists per 200 new LC diagnoses.
* 2 DCC PAs of specialist supportive / palliative care consultant time per 200 new LC diagnoses
* 10 DCC of specialist pulmonary pathologist time per 300 new lung cancer patients.
* Fast track, pre-clinic CT pathway
* Separate diagnostic planning process or MDT from treatment MDT meetings
* Thoracic surgical service with a minimum of DCCs devoted to lung cancer surgery of 5 PAs per 200 new lung cancer patients assuming a resection rate of 20%. DCCs should be adjusted according to resection rate.
* Specialist radiological imaging (PET-CT etc.)
* Bronchoscopy
* Endobronchial ultrasound
* Thoracoscopy
* Radiological biopsy
* Thoracic surgical diagnosis and staging\*
* Lung function and exercise testing
* Specialist diagnostic pathology
* Advanced early diagnostic facilities at larger centres to facilitate diagnosis in the LCS programme
* A clinical trials research team

Further detail is provided in the rest of section 4 and section 74.3.1 There must be an equivalent of 10 direct clinical care (DCC) programmed activities (PAs) of respiratory physician time allocated to lung cancer per 200 new patients per year. In addition, DCC PAs need to be allocated for the LCS programme that cover all activities (MDTs, admin etc.) This should be 1 PA per 30 participants referred to secondary care (either for work-up or discussion at screening review MDT) per week.4.3.2 There must be local provision of first visits with respiratory physicians, with the above expertise and supportive infrastructure, within the timeframes given in the NOLCP. This may mean commissioning these services from the centre where it may be easier to attract doctors with the necessary specialist interest. These clinicians will need to travel to provide services locally.4.3.3 There must be access to specialist thoracic radiologists including those who practice intervention. There should be sufficient interventionalists to provide a continuous service. The number of DCCs of thoracic radiology time should be a minimum of 7.5PAs per 200 new patients. There should be extra provision for the LCS programme of 1PA per 30 participants referred to secondary care (either for work-up or discussion at screening review MDT.4.3.4 There must be access, through the MDT, to medical and clinical oncologists with at least one third of their job plan devoted to lung cancer. These services are also specified in the specialised commissioning service specification for chemotherapy and radiotherapy. The minimum number of DCCs of oncology time should be 10 DCCs per 200 new patients for each of medical and clinical oncology. ϒIf clinical oncology is providing the whole service, the DCCs should be increased to 20 DCCs of clinical oncology time.4.3.5 There must be access, through the MDT, to specialist lung pathologists with at least 10 DCCS per 300 new patients.4.3.6 There must be access, through the MDT, to one WTE LCNS per 40 new LC diagnoses per year including one band 7 or above per 80 new diagnoses (see justification for this in the appendix).4.3.7 For 200 new lung cancer diagnoses per annum there should be 1.5WTE palliative care nurse specialists and 2 DCC PAs of palliative medicine physician time dedicated to lung cancer.4.3.8 There must be prompt access to locally or centrally provided expert diagnostic, staging and fitness assessment including:* specialist radiological imaging
* bronchoscopy
* endobronchial ultrasound
* thoracoscopy
* radiological biopsy
* thoracic surgical diagnosis and staging\*(see also 4.3.7)
* lung function and exercise testing
* specialist diagnostic pathology (see also 4.3.8)
* advanced early diagnostic facilities at larger centres to facilitate diagnosis in the LCS programme.

4.3.8 There must be access, through the MDT, to the local thoracic surgical service. This service is also described in detail in the Thoracic Surgery Service Specification for specialised commissioning. The minimum number of DCCs devoted to lung cancer surgery should be 5 PAs per 200 new patients assuming a resection rate of 20%. The minimum DCC PAs should be adjusted according to the local resection rate. The latter may be influenced by surgical practice, patient features and the degree of screening activity.* Surgery offers the best hope of long-term survival for lung cancer patients. Resection rates are low in the UK compared to many other countries and there is good evidence that introduction of specialist thoracic surgeons into MDT treatment planning discussions results in significant increases in resection rates. Surgical services should adhere to the latest national guidelines for the management of lung cancer.
* 4.3.9 There must be access to the centrally provided, diagnostic pathology service including molecular diagnostics. The pathology services, including genomics labs, should operate as per Royal College of Pathologists’ guidelines and standards(9). Laboratories should be accredited by the United Kingdom Accreditation Service (UKAS) either to ISO 15189 or CPA standard) and participate in appropriate NEQAS modules. Where pathology is available, pathologists should complete the Royal College of Pathologists’ minimum dataset for lung cancer for discussion at the lung cancer MDT. All appropriate tumours should be tested for actional genomic variants and PDL-1 expression, where treatment would be offered. The time from sample acquisition to provision of results for all molecular results necessary to plan treatment should be a maximum of 10 working days, in accordance with the NOLCP (or 14 days, the currently agreed maximum timeframe).[ADD COUNTRY SPECIFIC TIMES]

4.3.10 There must be an MDT meeting at least weekly attended (either in person or via good quality videoconference) by the clinicians specified in 4.3.1 to 4.3.7 above. * The minimum requirements for membership of an MDT are given below. *It should be noted that MDTs with better outcomes have more than one specialist in each discipline present.*
* This provides intra-MDT peer review of real-time clinical opinion.
* Cross cover should be available for all MDT meetings at all times.
* Consideration should be given to combining smaller MDTs to facilitate this.
* Cross cover should be available for all clinical services at all times.

**Membership:***At least one, preferably more, to ensure comprehensive cross-cover of:** Designated respiratory physician
* Designated thoracic surgeon
* Clinical oncologist
* Medical oncologist
* Imaging specialist (radiologist)
* Histopathologist
* Lung cancer nurse specialist
* Specialist in supportive and palliative care
* MDT co-ordinator/secretary
* An individual responsible for data collection and audit
* An NHS-employed member of the core or extended team should be nominated as having specific responsibility for users’ issues and information for patients and relatives/carers
* A member of the core team nominated as the person responsible for ensuring recruitment into clinical trials and other well-designed studies is integrated into the function of the MDT
* The team should have agreed guidelines for the management of lung cancer patients with reference to National Guidelines. Local guidance is needed to ensure that all members of the team are kept abreast of the latest developments and recommended treatment. Teams should, as a minimum, achieve the median value for compliance with the Quality Surveillance Team quality indicators (included in section 6)
* The MDT should have access to a variety of extended services including dietetics, psychological support and Pre / rehabilitation services.
* More detail about the services provided according to national guidance are provide in the appendix section A3.
* There must be access to clinical trials available in the network see guidance on “The Future of UK Clinical Research Delivery”(10).

4.3.11 Tertiary Services* It is recognised that some secondary providers also act as tertiary referral centres. The number of patients seen in these trusts is a combination of patients first seen as well as those referred in for tertiary services. The proportion of tertiary referral patients can vary from 10% to 75% of the cohort managed by the secondary care organisation. In addition, there are a few specialist providers that act as tertiary referral centres only.
*
* Resources should be available to the lung cancer pathway in these Trusts in the same way to ensure patients (whether they are first seen in the hospital or referral from elsewhere) have access to the same timely care. This requires the trust to be aware of the total number of patients with lung cancer being seen across the pathway and provide appropriate workforce, space and equipment to deliver parts of the pathway for multiple trusts. One example is tertiary referrals for bronchoscopy (including EBUS, robotic and therapeutic) which can impact significantly on diagnostic pathways for the referring as well as secondary/tertiary trust and there should be capacity for an additional bronchoscopy list per week for every 10 tertiary referrals per month. Similar capacity according to demand should be provided across the pathway e.g. PET-CT, specialist RT, clinical trials to ensure adherence to the NOLCP at both the referring trusts and and secondary/tertiary providers.”
	1. **Data collection and audit**
* Services must comply with the collection of the mandatory Cancer Services and Outcomes Dataset (COSD) and SACT dataset. If the service is a provider of radiotherapy. it must comply with the collection the RTDS (Radiotherapy Dataset). The care of patients should be regularly audited locally to supplement nationally collected data, where necessary. The MDT should participate in the National Lung Cancer Audit, network-wide audit of lung services and the National Cancer Surveillance programme. Thoracic surgical services should validate their data as required by the Lung Cancer Clinical Outcomes Project (LCCOP).
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| **5 Cancer alliances [INCLUDE COUNTRY SPECIFIC DETAIL]** |
| * **5.1 Cancer Alliances[INCLUDE NARRATIVE AROUND COUNTRY SPECIFIC EQUIVALENT]**
* Cancer alliances (CAs) are the vehicles to ensure that commissioners and providers understand what is required to improve cancer services and support the implementation of change, cognisant of local factors. Alliances are important in ensuring that the population covered have equal access to high quality care and in addressing inappropriate variation. Each CA needs to have an Expert Advisory Group (EAG) or equivalent, covering lung cancer and mesothelioma. This group is made up of clinicians across the network who specialise in thoracic oncology and should have at least two patient representatives. It is the primary source of clinical opinion on issues relating to lung cancer within the cancer network and an advisor to commissioners locally. Most CAs are represented on the UK Clinical Expert Group for Lung Cancer and Mesothelioma. This commissioning guidance has been shared with all CAs [INSERT COUNTRY-SPECIFIC EQUIVALENT] as key stakeholders. The EAG has an on-going role in the development and monitoring of the services to ensure that each provider meets the requirements of the commissioning guidance.
* The EAG reports to the Alliance Board and is responsible for adapting national guidelines for local use, ensuring regional services are available to patients in all locations though referral mechanisms, supporting implementation of the NOLCP and ensuring standards of care are high by sharing good practice and innovation. They should also collectively implement NICE Improving Outcomes Guidance including the use of new technologies and procedures as appropriate and carry out network and national audits.
* Each EAG should agree an up-to-date list of appropriate clinical trials and other well-designed studies for lung cancer patients and record numbers of patients entered into these studies by each MDT. The emergence of the ability to test for a wide range of molecular abnormalities in tumours for the identification of multiple small sub-groups of patients for single centre clinical trials will mean that the cancer networks will need to take an increasingly pro-active role in the promotion of research networks. In England and Wales, the EAGs should adopt the strategies for delivery of research set out in “The Future of UK Clinical Research Delivery”(10).
* **5.2 Population covered**
* In general, this service guidance covers patients registered with a General Practitioner within the Integrated Care Service (ICS) and eligible for treatment in the NHS (England). Local catchment populations are best agreed by the ICS in consultation with the CA EAGs.
* [ADD COUNTRY SPECIFC SECTION]
* The service is accessible to all patients with a suspected (or confirmed) lung cancer regardless of age, sex, race, or gender. Providers require staff to attend mandatory training on equality and diversity and the facilities provided offer appropriate disabled access for patients, family, and relatives/carers. When required the providers will use translators and printed information available in multiple languages, avoiding jargon and using patient approved and designed material.
* The provider has a duty to co-operate with the commissioner in undertaking Equality Impact Assessments as a requirement of age, race, gender, sexual orientation, religion, and disability equality legislation
	1. **Any acceptance and exclusion criteria**
* The role of local and specialist services is described in this document. Additional detail is to be found in the relevant service specifications (Thoracic surgery, Radiotherapy and Chemotherapy). Co-commissioning of the whole service should be considered, managed through the CA.
	1. **Interdependencies with other services**
* Primary care clinicians need easy and rapid access to chest x-rays with a rapid turn round time of reports (maximum 1 week). Local arrangements should be in place for the identification of abnormal CXR reports combined with mechanisms for rapid referral to specialist lung cancer clinics. It is mandatory to offer CT scanning prior to the specialist appointment in most cases of suspected lung cancer. CT should usually be offered prior to their first outpatient appointment. CT may not be appropriate in those with a low risk of lung cancer, where fitness levels are poor or comorbidities preclude treatment, and where CT has been performed recently (within 3 months).
	1. **Interdependencies with other organisations**
* Planning and monitoring of lung cancer services has been shaped by the availability of increasingly more detailed data. New datasets will be able to increase our ability to compare services and to tailor treatment more accurately to those who will benefit. Thus, there must be support from the local service for data collection to inform local and national service development. The UK CEG, National Cancer Registration and Analysis Service and the National Lung Cancer Audit group (part of the Royal College of Surgeons) must work closely together to ensure the most indicative data are available.
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| **6 Applicable Service Standards** |
| **6.1 Applicable national standards e.g. NICE, Royal College [ADD COUNTRY SPECIFIC]*** Care delivered by the lung cancer service providers must be of a nature and quality to meet the CQC care standards and the relevant NICE quality standards (listed in appendix section A3). The service will also comply with other relevant NICE standards that define best clinical practice.
* Imaging and pathology servicesmust be available to the MDT in line with the network agreed guidelines for these services**.** The pathology services should operate as per Royal College of Pathologists’ guidelines and standards. Laboratories should comply with Clinical Pathology Accreditation (UK) Ltd (CPA) and participate in appropriate NEQAS modules. Where pathology is available, pathologists should complete the Royal College of Pathologists’ minimum dataset for lung cancer for discussion at the lung cancer MDT.

Lung cancer radiotherapy services should work to comply with the Royal College of Radiologists Consensus statements for lung cancer radiotherapy. In particular, in order to maintain safety and quality, each radiotherapy centre should have a system for colleague led review of radiotherapy contours.* It is the trust’s responsibility to notify the commissioner on an exceptional basis should there be any breaches of the care standards. Where there are breaches, any consequences will be deemed as being the trust’s responsibility. Breaches may be identified and flagged for reporting by Cancer Alliances and specialised commissioning groups.
* Lung cancer services are currently required to achieve the 28-day faster diagnosis standard for all patients where lung cancer is suspected. This standard may not achieve better waiting times for people with confirmed cancer. However, the NOLCP shows that all patients should be seen in a lung cancer clinic by day 6 of the pathway, all diagnostic and staging tests should be completed as a bundle with 14 days from first clinic and definitive treatment should begin by day 49.
* The following generic cancer waiting times targets apply to all lung cancer patients:
	+ - 28 day wait from referral to definitive diagnosis (target variable, currently 80%)
		- 31 day wait from decision to treat to first treatment (96%)
		- 31 day wait to subsequent treatment (96%),
		- 62 day wait from urgent GP referral or screening referral or consultant upgrade to first treatment (85%).
* Teams should as a minimum aim to achieve the median value for compliance with the Cancer Surveillance quality indicators / CHI measures, and where the team does not achieve remedial action plans should be in place and shared with commissioners in line with the agreed timescales. Further details are available at <https://www.qst.england.nhs.uk>. Teams should aim to achieve or better the maximum waiting times set out in the NOLCP.
* The provider must be able to offer patient choice. This will be both in the context of appointment time and for diagnostic/treatment options, including those not available locally.

**6.2 Applicable local standards**See section 4.3 |

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| 1. **Key Service Outcomes and Metrics (note special consideration of tertiary services in section 4.3.11)**
 |
| * **Specialist provision**
 | * **Quality Indicator**
 | * **Rationale**
 | * **Data source**
 | * **Alert criteria**
 |
|  | Number of DCC PAs respiratory physicians with time dedicated to lung cancer. | * Patients receive treatment from specialists that have the skills and expertise to ensure the best possible outcomes

A minority of MDTs have minimal or no medical oncology input so that the majority of systemic therapy is provided by clinical oncologists. DCC PAs should be a total of 20 per 200 new LC patients. | * NLCA organisational audit / self-declaration
 | * 10 direct clinical care (DCC) respiratory physician PAs per 200 new diagnoses per year and 1 DCC PA per 30 participants in the LCS programme referred to secondary care (work-up or discussion).
 |
| Number of DCC PAs thoracic radiology with time dedicated to lung cancer | * 10 DCC thoracic radiologist PAs per 200 new lung cancer patients, with continuous cover for interventional procedures and 1 PA per 30 participants referred to secondary care from the LCS programme.
 |
| Number of DCC PAs medical oncology with time dedicated to lung cancer  | * Each oncologist should have at least one third of their time devoted to lung oncology with a minimum of 10 DCCs per 200 new patients
 |
| Number of DCC PAs clinical oncology with time dedicated to lung cancer | * Each oncologist should have at least one third of their time devoted to lung oncology with a minimum of 10 DCCs per 200 new patients
 |
| Number of DCC PAs thoracic surgery with time dedicated to lung cancer.A thoracic surgical unit should have a minimum of 3 full-time general thoracic surgeons (see also Thoracic Surgical Service Specification, NHSE)VATS and open lobectomy available and performed | * There should be at least 5 DCCs PAs devoted to lung cancer surgery per 200 new patients (sum of all provider new patients served) assuming a resection rate of 20%. DCC PAs should be adjusted according to resection rate
 |
| Number of LCNS per 40 new cases of lung cancer per year | * There should be at least 1WTE LCNS per 40 new patients including 1WTE band 7 or above per 80 new patients.
 |
|  | Number of DCC PAs of specialist pathology time | * Essential for modern molecular analyses and targeted treatment
 |  | * There should be 10 DCCs per 300 new lung cancer patients
 |
|  | Number of palliative care nurse specialists | * Improvement in quality of life, depression scores and possibly survival
 |  | * There should be 1.5 WTE per 200 stage IV patients per annum
 |
|  | Number of DCC PAs of supportive / palliative care specialists  | * Improvement in quality of life, depression scores and possibly survival
 |  | * There should be 2 DCC PAs per 200 stage IV patients per annum
 |
| * **Specialist Team**
 | * **Quality Indicator**
 | * **Rationale**
 | * **Data source**
 | * **Alert criteria**
 |
|  | * There is a lead clinician with responsibility for the lung cancer service
 | * Patients receive treatment from specialists that have the skills and expertise to ensure the best possible outcomes
 | * Self-declaration
 | No one functioning as the clinical lead for the lung cancer service |
| * There is an MDT that meets the requirements as specified in the National Commissioning guidance (section 5.3.8).
 | * All patients benefit from expert multidisciplinary discussion of their diagnosis and treatment
 | * Self-declaration
 | * Failure to meet criteria
 |
| There is an MDT meeting for treatment planning attended by all the relevant disciplines. | * All patients benefit from expert multidisciplinary discussion of their diagnosis and treatment
 | Self-declaration | * The attendance at each individual scheduled treatment planning meeting should constitute a quorum, for 95% or more, of the meetings
 |
| * Proportion of new cancer cases discussed at MDT
 | * All patients benefit from expert multidisciplinary discussion of their diagnosis and treatment
 | * COSD/CHI
 | * Target is 100%
 |
| * There are clinical guidelines in place which, where available, reflect national guidelines
 | * All patients receive agreed treatment that is consistent and equitable
 | Self-declaration | * Non-use of guidelines or departure from National recommendations without justification
 |
| There are agreed patient pathways in place which meet the National Optimal Lung Cancer Pathway (NOLCP). | * Patients are seen, diagnosed, and treated promptly; improvement in survival
 | Self-declaration | * All MDTs should have service development plans aimed at achieving implementation of NOLCP by 2018
 |
| * Patients reporting good availability of a CNS
 | * Patients have access to LCNS; Holistic care and patient advocacy
 | CPES | * <90%
 |

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| --- | --- | --- | --- | --- |
| * **Waiting times**
 | * **Quality Indicator**
 | * **Rationale**
 | * **Data source**
 | * **Alert criteria**
 |
|  | * National Cancer Waiting times
 | * Patients are seen, diagnosed, and treated promptly
 | * Waiting times data
 | * Nationally agreed targets for separate waiting times
 |
| * Complete diagnostic test result within 10 working days of acquisition of sample
 | * Patients are diagnosed and treated promptly
 | * Self-declaration
 |  |
| * Pathology
* NOLCP: sampling date to tumour subtype 3 days and to molecular marker status 10 days
 | * Patients are diagnosed and treated promptly
 | * Self-declaration
 | * Less than 90% compliance
 |
| 1. These operational standards for waiting times are assessed nationally across tumour sites on an aggregated basis. However, commissioners should be provided with the performance for each tumour site. |
| * **Audit**
 | * **Quality Indicator**
 | * **Rationale**
 | * **Data source**
 | * **Alert criteria**
 |
|  | * Total number of patients
 | * Workload
 | * NLCA / NCRAS
 |  |
|  | * Participation in National Lung Cancer Audit
* % of expected
* cases on whom data is collected
 | * Accurate baseline
 | * NLCA
 | * <100%
 |
| * CT prior to bronchoscopy rate
 | * Compliance with pathways; rapid diagnosis
 | * NLCA / NCRAS
 | * <95%
 |
| * The % pathological confirmation rate for stage 1 and 2 and performance status 0-1
 | * Directly correlated with survival
 | * NLCA / NCRAS
 | * <95%
 |
|  |  |  |  |
| * % of patients that present as an emergency
 | Reflects awareness, early diagnosis, and referral | * NCRAS
 | * **Above 10th centile**
 |
| * % pathological confirmation rate in patients with PS 0-2
 | * Reflects diagnostic rates; correlated with active treatment
 | * NCRAS /NLCA
 | * **<70%**
 |
| * % patients with recorded stage 1 or 2
 | * Reflects diagnostic rates; correlated with active treatment
 | * NCRAS */ NLCA*
 |  |
| * % patients with recorded stage 3a
 | * Reflects diagnostic rates; correlated with active treatment
 | * NCRAS */ NLCA*
 |  |
| * % patients with recorded stage 3b or 4
 | * Reflects diagnostic rates; correlated with active treatment
 | * NCRAS */ NLCA*
 |  |
| * **Clinical Outcome**
 | * **Outcome Indicator**
 | * **Rational**
 | * **Data source**
 | * **Alert Criteria**
 |
| * *\*Note: These measures should be reported with adjustment for case mix.*
 | * The percentage of patients with PS 0-1 having active treatment
 | * Directly correlated with survival
 | * NLCA / NCRAS
 | * <80%
 |
| * The percentage undergoing surgical resection (all cases excluding Mesothelioma & confirmed Small Cell Lung Cancer)
 | * Directly correlated with survival
 | * NLCA / NCRAS
 | * <15%
 |
| * The percentage of small cell cancer patients receiving chemotherapy
 | * Directly correlated with survival
 | NLCA / NCRAS / HES / SACT | * <65%
 |
| * Median LOS for surgery
 | * Patients receive high quality treatment with curative intent
 | * HES / NLCA / NCRAS
 | * Below 10th centile
 |
| * Proportion of patients treated by VATS lobectomy by stage
 | * Patients receive high quality treatment with curative intent
 | * HES / NLCA / NCRAS
 |  |
| * Proportion of patients receiving SABR
 | * Patients receive high quality treatment with curative intent
 | * HES / NLCA / NCRAS
 | * Below 10th centile
 |
| * Proportion of patients receiving radical radiotherapy
 | * Patients receive high quality treatment with curative intent
 | * HES / NLCA / NCRAS
 | * Below 10th centile
 |
| * One year relative survival by stage\*
 | * Reflects early diagnosis and better treatment
 | * NLCA / ONS
 | * Below 10th centile
 |
| * One year survival after surgery\*
 | * Patients receive high quality treatment with curative intent
 | * NLCA /LCCOP
 | * Statistical outlier
 |
| * Five year survival by stage\*
 | * Reflects mostly curative treatment but some early diagnosis
 | * ONS
 | * Below 10th centile
 |
| * 30 day mortality\*
 | * Surgery
 | * NCRAS / NLCA
 | * Below 10th centile
 |
|  | * SABR
 | * NCRAS / NLCA
 | * Below 10th centile
 |
|  | * Radical Radiotherapy
 | * NCRAS / NLCA
 | * Below 10th centile
 |
| * **Patient experience**
 | * **Quality Indicator**
 | * **Rational**
 | * **Data source**
 | * **Alert Criteria**
 |
|  | * % Having CNS contact recorded (codes Y1/Y2)
 | * Supporting holistic care and patient advocacy
 | * CHI
 | * Below 10th centile
 |
| % patients reporting being treated with respect and dignity | * Supporting holistic care and patient advocacy
 | * CPES
 | * Below 10th centile
 |
| Number of viable survey questions and % of those questions scoring red  | * Supporting holistic care and patient advocacy
 | * CPES
 | * Below 10th centile
 |
|  | Proportion of patients with stage IV disease offered a specialist supportive / palliative care assessment at the time of diagnosis.  | * Associated with improved quality of life, anxiety and depression scores and improved survival in some studies
 | * HES / NLCA / NCRAS
 | * < 80%
 |
| * **Research and Registration**
 | * **Quality Indicator**
 | * **Rational**
 | * **Data source**
 | * **Alert Criteria**
 |
|  | * Recruitment into trials
 | * All trials should be offered to eligible people
 | * NIHR
 | * Below 10th centile
 |
|  | * DCO rates, Staging Data, completeness of COSD, SACT and RTDS data uploads (where applicable)
 |  | * NCRAS
 | * Below 10th centile
 |

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| * 8. Location of Provider Premises
 |
| The Provider’s Premises are located at: ***For local agreement**** Name and address of the Provider’s Premises **OR** details of the Provider’s Premises **OR** state “Not applicable”
 |

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| * 9. Individual Service User Placement
 |
| * [Insert details including price where appropriate of Individual Service User Placement]
 |

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