# NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

# Lung cancer in adults

# NICE quality standard

## Draft for consultation

July 2019

**This quality standard covers** diagnosing and managing lung cancer in adults. It describes high-quality care in priority areas for improvement.

**It is for** commissioners, service providers, health, public health and social care practitioners, and the public.

This quality standard will update the existing quality standard on lung cancer in adults (published March 2012). For more information see update information

This is the draft quality standard for consultation (from 15 July to 23 August 2019). The final quality standard is expected to publish in December 2019.

## Quality statements

Statement 1 Local authorities and their partners use coordinated campaigns to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to. **[2012, updated 2019]**

Statement 2 Adults with suspected or confirmed lung cancer who smoke are referred to an evidence-based stop smoking service. **[new 2019]**

Statement 3 Adults with suspected or confirmed lung cancer have access to a named lung cancer clinical nurse specialist. **[2012, updated 2019]**

Statement 4 Adults with lung cancer have investigations to complete diagnostic staging and assess lung function before starting treatment with curative intent. **[new 2019]**

Statement 5 Adults with non-small-cell lung cancer stage IIIb, IIIc or IV who are having tissue samples taken, have them taken in a suitable form for pathological diagnosis and assessment of predictive biomarkers. **[2012, updated 2019]**

Statement 6 Adults with non-small-cell lung cancer stage I or II and good performance status have treatment with curative intent. **[new 2019]**

In 2019 this quality standard was updated to focus on a small number of priority areas for quality improvement. Statements prioritised in 2012 may have been updated (2012, updated 2019) or replaced (new 2019). For more information, see update information.

Statements from the 2012 quality standard for lung cancer in adults that are still supported by the evidence may still be useful at a local level:

- People with a chest X-ray result suggesting lung cancer and people aged 40 and over with unexplained haemoptysis are offered an appointment to see a cancer specialist within 2 weeks.

- People with lung cancer are offered a holistic needs assessment at each key stage of care that informs their care plan and the need for referral to specialist services.
- People with lung cancer, following initial assessment and computed tomography (CT) scan, are offered investigations that give the most information about diagnosis and staging with the least risk of harm.
- People with lung cancer are offered assessment for multimodality treatment by a multidisciplinary team comprising all specialist core members.
- People with lung cancer are assessed for radiotherapy with curative intent by a clinical oncologist specialising in thoracic oncology.
- People with lung cancer stage I–III who are offered radiotherapy with curative intent receive planned treatment techniques that optimise the dose to the tumour while minimising the risks of normal tissue damage.
- People with stage IIIB or IV non-small-cell lung cancer are offered systemic therapy in accordance with NICE guidance, that is directed by histology, molecular markers and PD-L1 expression.
- People with small-cell lung cancer have treatment initiated within 2 weeks of the pathological diagnosis.
- People with lung cancer are offered a specialist follow-up appointment within 6 weeks of completing initial treatment and regular specialist follow-up thereafter, which can include protocol-led clinical nurse specialist follow-up.
- People with lung cancer have access to all appropriate palliative interventions delivered by expert clinicians and teams.

The 2012 quality standard for lung cancer in adults is available as a pdf.

NICE has developed guidance and a quality standard on patient experience in adult NHS services (see the NICE pathway on patient experience in adult NHS services), which should be considered alongside these quality statements.

Other quality standards that should be considered when commissioning or providing lung cancer services include:

- Suspected cancer (2016) NICE quality standard 124

- Smoking: supporting people to stop (2013) NICE quality standard 43
- End of life care for adults (2011) NICE quality standard 13

A full list of NICE quality standards is available from the quality standards topic library.

# Questions for consultation

## *Questions about the quality standard*

**Question 1** Does this draft quality standard accurately reflect the key areas for quality improvement?

**Question 2** Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place?

**Question 3** Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.

## *Questions about the individual quality statements*

**Question 4** For draft quality statement 4: Is there currently variation in the extent to which the different investigations (PET-CT, brain imaging, spirometry and TLCO) are used in local areas?

**Question 5** For draft quality statement 5: Is it helpful to focus this statement on adults with advanced non-small-cell lung cancer or should it focus on a wider population?

**Question 6** For draft quality statement 6: Are adults with non-small-cell lung cancer stage IIIa always assessed for treatment with curative intent and if so, is this routine practice? Please explain what happens in your area.

## *Local practice case studies*

**Question 7** Do you have an example from practice of implementing the NICE guidelines that underpin this quality standard? If so, please submit your example to NICE local practice case studies on the NICE website. Examples of using NICE quality standards can also be submitted.

# Quality statement 1: Public awareness

## *Quality statement*

Local authorities and their partners use coordinated campaigns to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to. **[2012, updated 2019]**

## *Rationale*

Diagnosing lung cancer at a late stage is associated with poor health outcomes, including length of survival and mortality. Raising awareness of the symptoms and signs of lung cancer can encourage earlier presentation and diagnosis. Locally coordinated awareness campaigns can engage groups at risk in the local population. Earlier diagnosis will increase the number of adults with lung cancer able to have treatment with curative intent.

## *Quality measures*

### Structure

a) Evidence of assessment of local need to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to.

***Data source:*** Local data collection, for example, joint strategic needs assessment.

b) Evidence of locally coordinated campaigns to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to.

***Data source:*** Local data collection, for example, campaign plans or materials such as posters, leaflets and social media messaging.

c) Evidence of evaluation of locally coordinated campaigns to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to.

***Data source:*** Local data collection, for example, evaluation reports.

**Outcome**

a) Proportion of adults in the population (local sample) who can recognise and recall the symptoms and signs of lung cancer.

Numerator – the number in the denominator who can recognise and recall the symptoms and signs of lung cancer.

Denominator – the number of adults in the population (local sample).

***Data source:*** Local data collection, for example, a survey based on Cancer Research UK's Cancer Awareness Measure.

b) Proportion of adults with a new diagnosis of lung cancer whose first presentation to secondary care was via an emergency admission.

Numerator – the number in the denominator whose first presentation to secondary care was via an emergency presentation.

Denominator – the number of adults with a new diagnosis of lung cancer.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

c) Proportion of adults with a new diagnosis of lung cancer diagnosed at stage I or II.

Numerator – the number in the denominator diagnosed at stage I or II.

Denominator – the number of adults with a new diagnosis of lung cancer.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

## *What the quality statement means for different audiences*

**Local authorities and their partners** work together to develop and implement campaigns, tailored to the needs of the local population, to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to. Local authorities evaluate the impact of these campaigns, including the level of engagement with high-risk groups.

**Health and social care practitioners** (such as GPs, practice nurses, district nurses, community pharmacists and social care practitioners) get involved in local campaigns to raise awareness of the symptoms and signs of lung cancer and encourage people to seek medical advice if they need to.

**People** know about the symptoms and signs of lung cancer and are encouraged to get medical advice if they are worried about any symptoms.

## *Source guidance*

Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendation 1.1.1

## *Definitions of terms used in this quality statement*

### Symptoms and signs of lung cancer

Symptoms and signs of lung cancer include:

- unexplained (2 or more symptoms in people aged 40 years and over or 1 or more symptom in people who have ever smoked):
  - cough
  - fatigue
  - shortness of breath
  - chest pain
  - weight loss
  - appetite loss
- any of the following in people aged 40 years and over:
  - haemoptysis
  - persistent or recurrent chest infection
  - finger clubbing
  - supraclavicular lymphadenopathy or persistent cervical lymphadenopathy
  - chest signs consistent with lung cancer
  - thrombocytosis.

[NICE's guideline on suspected cancer: recognition and referral recommendations 1.1.1, 1.1.2 and 1.1.3]

## *Equality and diversity considerations*

Local authorities should ensure that awareness campaigns include approaches that engage people living in socioeconomically deprived areas.

# Quality statement 2: Stopping smoking

## *Quality statement*

Adults with suspected or confirmed lung cancer who smoke are referred to an evidence-based stop smoking service. **[new 2019]**

## *Rationale*

People with suspected or confirmed lung cancer who smoke should be encouraged to stop smoking to reduce the risk of treatment-related complications and other smoking-related conditions. They should be referred to a stop smoking service so that they can get the help and support they will need to stop smoking.

## *Quality measures*

### Structure

a) Evidence of local arrangements to ensure that adults with suspected or confirmed lung cancer who smoke are given advice about why it is important to stop smoking.

***Data source:*** Local data collection, for example, service protocols.

b) Evidence of local referral pathways to evidence-based stop smoking services for adults with suspected or confirmed lung cancer.

***Data source:*** Local data collection, for example, referral pathways.

### Process

a) Proportion of adults with suspected or confirmed lung cancer who smoke who are referred to an evidence-based stop smoking service.

Numerator – the number in the denominator who are referred to an evidence-based stop smoking service.

Denominator – the number of adults with suspected or confirmed lung cancer who smoke.

***Data source:*** Local data collection, for example, audit of patient records.

b) Proportion of adults with suspected or confirmed lung cancer who smoke who are seen by an evidence-based stop smoking service.

Numerator – the number in the denominator who are seen by an evidence-based stop smoking service.

Denominator – the number of adults with suspected or confirmed lung cancer who smoke.

***Data source:*** Local data collection, for example, stop smoking service data.

**Outcome**

a) 4-week quit rate for adults with lung cancer who smoke.

***Data source:*** Local data collection, for example stop smoking service data.

b) Smoking rates in adults with lung cancer having treatment with curative intent.

***Data source:*** Local data collection, for example, audit of patient records.

## *What the quality statement means for different audiences*

**Service providers** (such as primary care, community services, secondary and tertiary care) ensure that processes are in place to provide advice to adults with suspected or confirmed lung cancer who smoke about why it is important to stop smoking. Providers have referral pathways to an evidence-based stop smoking service.

**Healthcare professionals** (such as GPs, clinical nurse specialists and consultants) provide advice to adults with suspected or confirmed lung cancer who smoke about why it is important to stop smoking and refer them to an evidence-based stop smoking service.

**Commissioners** (such as clinical commissioning groups and NHS England) ensure that they commission services which refer adults with suspected or confirmed lung cancer who smoke to an evidence-based stop smoking service. They should commission stop smoking services with enough capacity to meet the needs of adults with suspected or confirmed lung cancer in the local population.

**Adults with suspected or confirmed lung cancer who smoke** are told why it is important to stop smoking and are referred to a stop smoking service that can help them to give up.

## *Source guidance*

- Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendations 1.4.1, 1.4.2 and 1.4.3
- Stop smoking interventions and services (2018) NICE guideline NG92, recommendation 1.1.3

## *Definitions of terms used in this quality statement*

### Suspected lung cancer

Adults with symptoms and signs of lung cancer who are referred for investigation. [Expert opinion]

### Evidence-based stop smoking services

Evidence-based stop smoking services are commissioned to provide support to help people to stop smoking. The following interventions should be available[1]:

- behavioural support (individual and group)
- bupropion
- nicotine replacement therapy – short and long acting
- varenicline
- very brief advice.

[NICE's guideline on stop smoking interventions and services recommendation 1.3.1 and terms used in this guideline and NICE's guideline on lung cancer: diagnosis and management recommendation 1.4.3]

## *Equality and diversity considerations*

Information about stopping smoking should be in a format that suits the person's needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate. People should have access to an

[1] See information on bupropion hydrochloride and varenicline in the British national formulary

interpreter or advocate if needed. For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in NHS England's Accessible Information Standard.

# Quality statement 3: Lung cancer clinical nurse specialist

## *Quality statement*

Adults with suspected or confirmed lung cancer have access to a named lung cancer clinical nurse specialist. **[2012, updated 2019]**

## *Rationale*

Lung cancer clinical nurse specialists can provide specialist guidance and support at all stages of care and treatment for adults with lung cancer and their family and carers. They can act as the key worker, coordinating care between secondary and primary care and providing continuity. Having a named clinical nurse specialist will ensure that adults with lung cancer can access advice and support whenever they need it, helping to improve their quality of life and health outcomes.

## *Quality measures*

### Structure

a) Evidence of the availability of clinical nurse specialists who specialise in the care and support of adults with lung cancer.

***Data source:*** Local data collection, for example, workforce plans or staff rotas. Royal College of Physicians National Lung Cancer Audit recommends 1 whole-time equivalent nurse for an annual caseload of 80 new patients.

b) Evidence of local arrangements to ensure that adults with lung cancer know how to contact the lung cancer clinical nurse specialist between hospital visits.

***Data source:*** Local data collection, for example, service protocols and information on how to contact a clinical nurse specialist.

### Process

a) Proportion of adults with lung cancer who had a lung cancer clinical nurse specialist present at diagnosis.

Numerator – the number in the denominator who had a lung cancer clinical nurse specialist present at diagnosis.

Denominator – the number of adults with lung cancer.

***Data source:*** Royal College of Physicians National Lung Cancer Audit. Data from National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

b) Proportion of adults with lung cancer who have had assessment by a lung cancer clinical nurse specialist.

Numerator – the number in the denominator who have had assessment by a lung cancer clinical nurse specialist.

Denominator – the number of adults with lung cancer.

***Data source:*** Royal College of Physicians National Lung Cancer Audit. Data from National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

c) Proportion of adults with lung cancer receiving treatment who were given the name of a lung cancer clinical nurse specialist who would support them through treatment.

Numerator – the number in the denominator who were given the name of a lung cancer clinical nurse specialist who would support them through treatment

Denominator – the number of adults with lung cancer receiving treatment.

***Data source:*** Quality Health National Cancer Patient Experience Survey.

**Outcome**

a) Proportion of adults with lung cancer who are satisfied with the support provided by a clinical nurse specialist.

Numerator – the number in the denominator who are satisfied with the support provided by a clinical nurse specialist.

Denominator – the number of adults with lung cancer.

***Data source:*** Local data collection, for example, a survey of adults with lung cancer. Quality Health National Cancer Patient Experience Survey includes data on ease of contacting a clinical nurse specialist for people with lung cancer receiving hospital treatment.

b) Health-related quality of life for adults with lung cancer.

***Data source:*** Local data collection, for example, survey of adults with lung cancer or their families and carers including patient-reported outcome measure.

## *What the quality statement means for different audiences*

**Service providers** (such as secondary and tertiary care) ensure that lung cancer clinical nurse specialists are available to support adults with suspected or confirmed lung cancer throughout their care. Providers ensure that processes are in place for adults with lung cancer to be supported by a lung cancer clinical nurse specialist at diagnosis and for them to have regular assessments with a lung cancer clinical nurse specialist at key points in their care.

**Healthcare professionals** (such as members of the lung cancer multidisciplinary team) ensure that adults with suspected or confirmed lung cancer know how to contact a lung cancer clinical nurse specialist between hospital visits. Healthcare professionals share information with the lung cancer clinical nurse specialist to allow them to coordinate care for adults with lung cancer. Clinical nurse specialists provide support and information to adults with lung cancer and carry out assessments at key points of care.

**Commissioners** (clinical commissioning groups) commission services with enough clinical nurse specialists with expertise in lung cancer to support all adults with lung cancer throughout all stages of care.

**Adults with lung cancer** know how they can contact a clinical nurse specialist (a nurse experienced in treating lung cancer) for information, advice and support throughout their care.

## *Source guidance*

Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendations 1.2.2, 1.3.33 and 1.6.3.

## *Definitions of terms used in this quality statement*

### Suspected lung cancer

Adults with symptoms and signs of lung cancer who are referred for investigation. [Expert opinion]

### Lung cancer clinical nurse specialist

This can include surgical or oncology lung cancer clinical nurse specialists as well as palliative care clinical nurse specialists, depending on the stage of care. [Expert opinion]

## *Equality and diversity considerations*

Lung cancer clinical nurse specialists should ensure that people are provided with information that they can easily read and understand themselves, or with support, so they can communicate effectively with health and care services. Information should be in a format that suits their needs and preferences. It should be accessible to people who do not speak or read English, and it should be culturally appropriate. People should have access to an interpreter or advocate if needed. For people with additional needs related to a disability, impairment or sensory loss, information should be provided as set out in NHS England's Accessible Information Standard.

# Quality statement 4: Investigations to complete diagnostic staging and assess lung function

## *Quality statement*

Adults with lung cancer have investigations to complete diagnostic staging and assess lung function before starting treatment with curative intent. **[new 2019]**

## *Rationale*

Undergoing treatment with curative intent when lung cancer has already spread can reduce quality of life without increasing life expectancy. Before going ahead with treatment with curative intent it is important to ensure that diagnostic staging is complete. This will ensure that the most appropriate treatment is provided. Risk assessment before treatment with curative intent should also include assessment of lung function because it is a good predictor of treatment outcomes.

## *Quality measures*

### Structure

a) Evidence of local processes to record investigations to complete diagnostic staging and assess lung function for adults with lung cancer who are being considered for treatment with curative intent.

***Data source:*** Local data collection, for example, local protocol.

b) Evidence of availability of brain imaging for adults with non-small-cell lung cancer stage II or III who are being considered for treatment with curative intent.

***Data source:*** Local data collection, for example, waiting times for brain imaging for adults with lung cancer.

### Process

a) Proportion of adults with lung cancer treated with curative intent who had positron-emission tomography (PET-CT) before starting treatment.

Numerator – the number in the denominator who had PET-CT before starting treatment.

Denominator – the number of adults with lung cancer treated with curative intent.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

b) Proportion of adults with non-small-cell lung cancer stage II or III treated with curative intent who had brain imaging before starting treatment.

Numerator – the number in the denominator who had brain imaging before starting treatment.

Denominator – the number of adults with non-small-cell lung cancer stage II or III treated with curative intent.

***Data source:*** Local data collection, for example, audit of patient records.

c) Proportion of adults with lung cancer treated with curative intent who had spirometry and transfer factor (TLCO) before starting treatment.

Numerator – the number in the denominator who had spirometry and TLCO before starting treatment.

Denominator – the number of adults with lung cancer treated with curative intent.

***Data source:*** Local data collection, for example, audit of patient records.

d) Proportion of adults with lung cancer who had clinical stage and performance status recorded.

Numerator – the number in the denominator who had clinical stage and performance status recorded.

Denominator – the number of adults with lung cancer.

***Data source:*** Royal College of Physicians National Lung Cancer Audit measures the recording of performance status and clinical stage separately. Data from National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

**Outcome**

a) 1-year survival rate for adults with lung cancer treated with curative intent.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

b) 5-year survival rate for adults with lung cancer treated with curative intent.

***Data source:*** Local data collection, for example, audit of patient review records.

## *What the quality statement means for different audiences*

**Service providers** (such as secondary and tertiary care) ensure that processes are in place for adults with lung cancer to have investigations to complete diagnostic staging and to check lung function before starting treatment with curative intent. Providers ensure that adults with non-small-cell lung cancer can have brain imaging without delay.

**Healthcare professionals** (such as consultants and clinical nurse specialists) arrange for adults with lung cancer to have investigations to complete diagnostic staging and to check lung function before starting treatment with curative intent. Healthcare professionals give people information about the purpose of the investigations, and discuss the results with them, including what they might mean for their treatment.

**Commissioners** (such as clinical commissioning groups) commission services that ensure adults with lung cancer have investigations to complete diagnostic staging and to check lung function before starting treatment with curative intent. Commissioners ensure that providers can offer brain imaging to adults with non-small-cell lung cancer without delay.

**Adults with lung cancer** have scans to confirm the stage of the cancer and tests to check how well their lungs are working before they start treatment.

## *Source guidance*

Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendations 1.3.4, 1.3.18, 1.3.19, 1.3.22, 1.3.23, 1.3.24, 1.3.25 and 1.4.13.

## *Definitions of terms used in this quality statement*

**Investigations to complete diagnostic staging and assess lung function**

Investigations should include:

- PET-CT
- stage-specific brain imaging for people with non-small-cell lung cancer
  - no brain imaging for people with stage I
  - contrast-enhanced brain CT for people with stage II
  - contrast-enhanced brain MRI for people with stage III
- spirometry and TLCO

[NICE's guideline on lung cancer: diagnosis and management recommendations 1.3.4, 1.3.23, 1.3.24, 1.3.25 and 1.4.13]

**Treatment with curative intent for lung cancer**

There are a variety of treatment options and combinations of treatment that aim to remove the tumour and effect a cure for adults with lung cancer including: surgery; radiotherapy; chemotherapy and chemoradiotherapy. The approach to treatment will depend on the type of lung cancer, clinical stage of the tumour, the person's performance status, comorbidities and their personal choice. [NICE's guideline on lung cancer: diagnosis and management and expert opinion]

## *Question for consultation*

Is there currently variation in the extent to which the different investigations (PET-CT, brain imaging, spirometry and TLCO) are used in local areas?

# Quality statement 5: Tissue sampling

## *Quality statement*

Adults with non-small-cell lung cancer stage IIIb, IIIc or IV who are having tissue samples taken, have them taken in a suitable form for pathological diagnosis and assessment of predictive biomarkers. **[2012, updated 2019]**

## *Rationale*

Obtaining a pathological diagnosis and assessment of predictive biomarkers for a lung tumour ensures that the most appropriate treatment regimen is offered. Drug treatments for non-small-cell lung cancer work best if they are targeted according to histological sub-type and predictive biomarkers of the tumour. It is important that samples taken for diagnosis and staging yield enough material for pathology tests and immunohistochemical and/or genetic analysis. This will reduce delays to treatment by minimising the need for further sampling before making treatment decisions.

## *Quality measures*

### Structure

a) Evidence of the availability of thoracic radiologists experienced in performing lung biopsies for adults with lung cancer.

***Data source:*** Local data collection, for example, workforce plans or staff rotas.

b) Evidence of local processes to ensure that adults with non-small-cell lung cancer stage IIIb, IIIc or IV who are having tissue samples taken, have them taken in a suitable form for pathological diagnosis and assessment of predictive biomarkers.

***Data source:*** Local data collection, for example, service protocol.

c) Evidence of audit of the local test performance of endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) and endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA).

***Data source:*** Local data collection, for example, audit reports.

**Process**

a) Proportion of adults with non-small-cell lung cancer stage IIIb, IIIc or IV who have a second diagnostic test in order to determine histological sub-type or predictive biomarkers.

Numerator – the number in the denominator who have a second diagnostic test in order to determine histological sub-type or predictive biomarkers.

Denominator – the number of adults with non-small-cell lung cancer stage IIIb, IIIc or IV.

***Data source:*** Local data collection, for example, audit of patient records.

b) Proportion of adults with non-small-cell lung cancer stage IIIb, IIIc or IV who have a pathological diagnosis.

Numerator – the number in the denominator who have a pathological diagnosis.

Denominator – the number of adults with non-small-cell lung cancer stage IIIb, IIIc or IV.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

c) Proportion of adults with non-small-cell lung cancer stage IIIb, IIIc or IV for whom the reported tumour sub-type is 'not otherwise specified'.

Numerator – the number in the denominator for whom the reported tumour sub-type is 'not otherwise specified'.

Denominator – the number of adults with non-small-cell lung cancer stage IIIb, IIIc or IV.

***Data source:*** Data from National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

**Outcome**

1-year survival rate for adults with non-small-cell lung cancer stage IIIb, IIIc or IV.

***Data source:*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

## *What the quality statement means for different audiences*

**Service providers** (such as secondary and tertiary care) ensure that lung cancer multidisciplinary teams include thoracic radiologists experienced in performing lung biopsies for adults with lung cancer. Providers ensure that adults with non-small-cell lung cancer stage IIIb, IIIc or IV who are having tissue samples taken, have them taken in a suitable form for pathological diagnosis and assessment of predictive biomarkers. Providers audit local test performance for EBUS-TBNA and EUS-FNA to assess the sensitivity of the procedures and the suitability of samples.

**Healthcare professionals** (such as respiratory physicians and radiologists) offer investigations to adults with non-small-cell lung cancer stage IIIb, IIIc or IV that will yield tissue samples that are suitable for pathological diagnosis and assessment of predictive biomarkers. Healthcare professionals ensure that the samples they take allow histological sub-typing and analysis of predictive biomarkers.

**Commissioners** (such as clinical commissioning groups) commission services that ensure that adults with non-small-cell lung cancer stage IIIb, IIIc or IV have tissue samples taken that are suitable for pathological diagnosis and assessment of predictive biomarkers.

**Adults with advanced non-small-cell lung cancer** have tissue samples taken that give enough information for a complete diagnosis and to guide treatment options.

## *Source guidance*

Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendations 1.3.11.

## *Definitions of terms used in this quality statement*

### Samples taken in a suitable form

Providing there is no risk to the person, tissue samples of sufficient size and quality should be taken to support pathological diagnosis, including tumour sub-typing and assessment of predictive biomarkers. The samples should:

- allow pathologists to classify non-small-cell lung cancer into squamous cell carcinoma or adenocarcinoma wherever possible
- support immunohistochemical and/or genetic analysis to detect specific biomarkers that predict whether targeted treatments are likely to be effective, for example, epidermal growth factor receptor (EGFR) mutations, anaplastic lymphoma kinase (ALK) gene rearrangement, or programmed death-ligand 1 (PDL-1) expression.

[NICE's guideline on lung cancer: diagnosis and management full guideline and expert opinion]

### *Question for consultation*

Is it helpful to focus this statement on adults with advanced non-small-cell lung cancer or should it focus on a wider population?

# Quality statement 6: Treatment with curative intent

## *Quality statement*

Adults with non-small-cell lung cancer stage I or II and good performance status have treatment with curative intent. **[new 2019]**

## *Rationale*

There are a variety of options for treatment with curative intent for adults with early stage non-small-cell lung cancer who are well enough. Treatment with curative intent improves survival. Decisions about treatment with curative intent should be taken at multidisciplinary team meetings that include all specialist core members. Adults with lung cancer should be involved in deciding which treatment or combinations of treatment best suit them.

## *Quality measures*

### Structure

a) Evidence that lung cancer multidisciplinary team meetings include all specialist core members.

***Data source:*** Local data collection, such as attendance monitoring for lung cancer multidisciplinary team meetings.

b) Evidence of local processes for discussing options for treatment with curative intent with adults with early stage non-small-cell lung cancer and good performance status.

***Data source:*** Local data collection, such as local clinical protocols and patient information resources.

c) Evidence of local arrangements and written clinical protocols to ensure that adults with non-small-cell lung cancer stage I or II and good performance status have treatment with curative intent.

***Data source:*** Local data collection, such as local clinical protocols.

**Process**

Proportion of adults with non-small-cell lung cancer stage I or II and good performance status who have treatment with curative intent

Numerator – the number in the denominator who have treatment with curative intent.

Denominator – the number of adults with non-small-cell lung cancer stage I or II and good performance status.

***Data source:*** Royal College of Physicians National Lung Cancer Audit. Data from National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset.

**Outcome**

a) Proportion of adults with non-small-cell lung cancer stage I or II and good performance status who are satisfied that treatment options were explained to them.

Numerator – the number in the denominator who are satisfied that treatment options were explained to them.

Denominator – the number of adults with non-small-cell lung cancer stage I or II and good performance status.

***Data source:*** Local data collection, for example, surveys carried out with adults with lung cancer or their families and carers. Quality Health National Cancer Patient Experience Survey asks if treatment options were explained before treatment started.

b) Health-related quality of life in adults with lung cancer.

***Data source:*** Local data collection, for example, surveys carried out with adults with lung cancer or their families including patient-reported outcome measure.

c) 1-year survival rate for adults with non-small-cell lung cancer treated with curative intent.

***Data source*** National Cancer Registration and Analysis Service Cancer Outcomes and Services Dataset

d) 5-year survival rate for adults with non-small-cell lung cancer treated with curative intent.

***Data source:*** Local data collection, for example, audit of patient review records.

## *What the quality statement means for different audiences*

**Service providers** (such as secondary and tertiary care) ensure that lung cancer multidisciplinary team meetings include all specialist core members to support decisions on treatment for adults with lung cancer. Service providers ensure that staff are trained to discuss the risks and benefits of treatment options with adults with early stage lung cancer and good performance status and to support shared decision making. Service providers ensure that all treatment options are available.

**Healthcare professionals** (such as members of lung cancer multidisciplinary teams) attend lung cancer multidisciplinary team meetings and advise on treatment options for adults with lung cancer. Healthcare professionals discuss the risks and benefits of treatment options with adults with early stage lung cancer and good performance status and support them to make decisions about treatment.

**Commissioners** (such as clinical commissioning groups) commission services that ensure that adults with non-small-cell lung cancer stage I or II and good performance status can receive treatment with curative intent. Commissioners ensure that services have expertise to support decisions about optimal treatment for adults with lung cancer and that all suitable treatment options are available.

**Adults who are fit and have early stage lung cancer** are offered treatment that may cure their cancer. They discuss treatment options with a healthcare professional who explains the risks and benefits of the different options.

## *Source guidance*

Lung cancer: diagnosis and management (2019) NICE guideline NG122, recommendations 1.4.20, 1.4.21, 1.4.24, 1.4.27, 1.4.28, 1.4.29, 1.4.32, 1.4.34 and 1.4.35.

## *Definitions of terms used in this quality statement*

**Treatment with curative intent for non-small-cell lung cancer**

There are a variety of options for treatment with curative intent for adults with early stage non-small-cell lung cancer and good performance status. The approach to treatment will depend on the clinical stage of the tumour, the person's performance status, comorbidities and personal choice. The following options should be available and the risks and benefits of the options that are suitable should be discussed with the person:

- surgery – lobectomy or sublobar resection
- radiotherapy – stereotactic ablative radiotherapy or conventional or hyperfractionated radiotherapy
- chemoradiotherapy
- multimodality treatment (surgery, radiotherapy and chemotherapy in any combination)

[NICE's guideline on lung cancer: diagnosis and management recommendations 1.4.20, 1.4.24, 1.4.27, 1.4.32, 1.4.34 and 1.4.35]

**Good performance status**

A measure of how well a patient can perform ordinary tasks and carry out daily activities. A good performance status is defined as WHO a score of:

- 0, able to carry out all normal activity without restriction, or
- 1, restricted in strenuous activity but ambulatory and able to carry out light work.

[NICE's guideline on lung cancer: diagnosis and management 2011 full guideline glossary (appendix 6) and NICE's technology appraisal on carmustine implants and temozolomide for the treatment of newly diagnosed high-grade glioma appendix C]

## *Equality and diversity considerations*

Healthcare professionals should ensure that people are not excluded from treatment with curative intent because of their age. They should support older people to

consider all the treatment options carefully before deciding which option suits them best.

### *Question for consultation*

Are adults with non-small-cell lung cancer stage IIIa always assessed for treatment with curative intent and if so, is this routine practice? Please explain what happens in your area.

## Update information

**July 2019:** This quality standard was updated, and statements prioritised in 2012 were replaced.

Statements are marked as:

- **[new 2019]** if the statement covers a new area for quality improvement
- **[2012, updated 2019]** if the statement covers an area for quality improvement included in the 2012 quality standard and has been updated.

Statements numbered 1, 4, and 7 in the 2012 version have been updated and are included in the updated quality standard, marked as **[2012, updated 2019]**.

Statements from the 2012 version (numbered 2, 5, 6, 9, 10, 11, 12, 13, 14 and 15) that are that are still supported by the evidence and may still be useful at a local level,, are listed in the quality statements section.

The 2012 quality standard for lung cancer in adults is available as a pdf.

## About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about how NICE quality standards are developed is available from the NICE website.

See quality standard advisory committees on the website for details of standing committee 3 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available on the quality standard's webpage.

This quality standard has been included in the NICE Pathway on lung cancer, which brings together everything we have said on a topic in an interactive flowchart.

NICE has produced a quality standard service improvement template to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references

to organisations or people responsible for commissioning or providing care that may be relevant only to England.

### *Improving outcomes*

This quality standard is expected to contribute to improvements in the following outcomes:

- lung cancer diagnoses at stages I or II
- 1-year and 5-year lung cancer survival rates
- lung cancer mortality rate
- health-related quality of life for adults with lung cancer
- satisfaction with care for adults with lung cancer.

It is also expected to support delivery of the Department of Health and Social Care outcome frameworks:

- Adult social care outcomes framework
- NHS outcomes framework
- Public health outcomes framework for England.

### *Resource impact*

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource impact work for the source guidance. Organisations are encouraged to use the resource impact statement for the NICE guideline on lung cancer to help estimate local costs.

### *Diversity, equality and language*

During the development of this quality standard, equality issues were considered and equality assessments are available. Any specific issues identified during development of the quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations.

Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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