For health professionals
in England and Wales

CANCER RESEARCH UK

Together we are beating cancer

Your guide to diagnosing lung cancer early

Why is early diagnosis of lung cancer so important?

Early diagnosis is vital to improving cancer survival. In England, only 1 in 5 lung cancers are diagnosed at the earliest stage[1] and lung cancer survival is highly dependent on the stage of diagnosis.

Acting as soon as there is a suspicion of lung cancer can lead to better treatment options and outcomes for patients.

Your involvement is key

GPs play a vital role in identifying signs and symptoms of lung cancer and promptly referring patients for tests. However, diagnosing lung cancer can be challenging:

- Patients often experience non-specific symptoms such as weight loss, fatigue and a cough, which can easily be attributed to common respiratory conditions, particularly in patients who smoke.[2,3,4].
- Comorbidities such as asthma and COPD are common in people with lung cancer and make it difficult for patients and GPs to differentiate between new symptoms and those related to an underlying condition. Therefore, it is important to recognise changes to a cough in patients with comorbidities.

Recognition and referral of suspected lung cancer

NICE NG12 guidelines recommend:

- referral onto an urgent suspected lung cancer pathway for unexplained haemoptysis
- offering an urgent chest X-ray to people with persistent symptoms including cough, fatigue, shortness of breath and chest pain

Guidance varies depending on smoking status and age but shouldn't override clinical judgement, formed through history-taking and patient examination.

Remember NG12 recommends urgently referring patients at a positive predictive value (PPV) threshold of 3% or higher, with an even lower risk threshold for primary care tests.

Make sure you're also aware of specific local guidance and pathways.

Take advantage of the fact that chest x-rays are less expensive, readily accessible and have faster turnaround times for test reporting compared to other diagnostic tests.

Download our NICE NG12 referral summary at **cruk.org/nicesummary**

Lung cancer screening

In England, targeted lung cancer screening is being rolled out nationally.[5] For information on the programme and ways you can support screening please visit **cruk.org/lungcancerscreening**

Robust safety netting is vital

Chest x-rays play a valuable role in the initial investigation of symptoms, but it's important to consider the limitations of this test. Evidence suggests that a chest x-ray does not detect lung cancer in at least 20% of cases.[6,7] Prompt ordering of a chest x-ray should be accompanied by safety netting for potentially false negative results.

Take action if you still suspect lung cancer following a negative chest x-ray. Make sure you:

- follow up with patients until their symptoms are explained or resolved
- repeat examinations and history taking
- specify when patients should book another appointment if their symptoms reoccur, worsen or new symptoms develop

When sending people for follow-up investigations or referrals, reassure them of safety netting precautions in place in primary and secondary care.

Lung cancer in never smokers

Smoking is still the largest modifiable risk factor for lung cancer. However, in England, around 1,700 people who have never smoked are diagnosed with lung cancer every year.[8] Lung cancer in people who've never smoked raises a diagnostic challenge. It is under recognised by both health professionals and the public, due to lower awareness of risk and urgency to seek help.[9,10,11]

Make sure you're aware of signs and symptoms of lung cancer, even in people who have never smoked, and safety net people until symptoms are explained or resolved.

Case study

Denise is 72 years old and has never smoked. Denise presents to her GP with a dry, persistent cough she's had for at least a month, and some weight loss.

Would you order an urgent chest x-ray?

As per NG12 guidance, an urgent chest x-ray could be ordered, as Denise is over 40 and has a cough and weight loss. If Denise had a history of smoking, a chest x-ray could have been ordered based on her having either a cough or weight loss only.

The chest x-ray result is normal. What are your next steps?

Denise is advised to return if the symptoms don't resolve after four to six weeks. Two months later, Denise presents again with the same symptoms as well as fatigue and loss of appetite. A recent full blood count has noted thrombocytosis.

What could you do next?

Exercising clinical judgement is critical as NG12 guidance highlights thrombocytosis as a sign GPs should be aware of for several cancers including lung cancer. Next steps could include:

- ordering another chest x-ray
- referring to direct access CT (if available)
- having a discussion with the respiratory medicine team

Denise's case highlights the importance of safety netting and being alert to the risk of lung cancer in all patients with respiratory and non-specific symptoms.

If you have any comments or useful information about this guide, contact **SEinbox@cancer.org.uk**

References

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