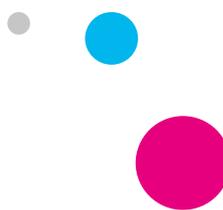




Your guide to diagnosing lung cancer early



Why is early diagnosis of lung cancer so important?

The chances of someone surviving lung cancer is highly dependent on stage of diagnosis – **acting as soon as there is a suspicion of possible lung cancer can lead to more treatment options and better outcomes for patients.** The challenge of diagnosing lung cancer has been further complicated by the COVID-19 pandemic and with the additional challenge of symptom overlap between COVID-19 and lung cancer, it is vital to be alert to the risk of lung cancer in your patients.

Patients are around 20 times more likely to survive for at least 5 years when diagnosed with lung cancer at the earliest stage compared to the latest stage².

Diagnosing lung cancer can be challenging. Research into the management of suspected cancer in primary care has found that over 30% of patients subsequently diagnosed with lung cancer have had 3 or more consultations before referral^{3,4}. Patients often experience non-specific symptoms such as weight loss, fatigue and cough, which can easily be attributed to common respiratory conditions particularly in patients who smoke^{5,6,7}. The red flag symptom of haemoptysis is a relatively rare presenting symptom reported in less than a quarter of lung cancer patients⁵.

In addition, co-morbidities such as COPD and asthma can make it difficult for patients and GPs to differentiate between new and potentially malignant symptoms, and those related to an underlying condition⁷. For example be aware of a changing nature of a cough in patients with COPD or asthma.



Lung cancer survival by stage at diagnosis

Proportion of people surviving their cancer for five years or more

Diagnosed at earliest stage



Almost 6 in 10

Diagnosed at latest stage



Less than 1 in 10

Earliest stage = stage 1; latest stage = stage 4.
Data is 5-year age standardised net lung cancer survival by stage, adults (15-99) diagnosed between 2013-2017, England. Source: Cancer survival in England, ONS/PHE, 2019.

Your involvement is key

GPs play a vital role in quickly identifying signs and symptoms of suspected lung cancer and referring patients promptly for tests.

In Scotland, only around 1 in 5 lung cancers are diagnosed at the earliest stage¹.



Recognising and referring suspected lung cancer

In July 2020, the Scottish Government published updated **clinical guidance** to help GPs navigate symptoms which should be promptly investigated as suspected lung cancer while COVID-19 is circulating in the population.

- The **Scottish Referral Guidelines (SRG) for Suspected Cancer⁸** were refreshed in 2019. Recommendations for GPs when presented with suspected lung cancer include:
 - Referral onto an urgent suspicion of lung cancer pathway
 - Ordering an urgent suspicion of cancer chest X-ray
 - Consider taking bloods including FBC. Thrombocytosis is a non-specific sign that is recognised by the SRG to warrant further diagnostic investigation for Lung, Endometrial, Gastric, Oesophageal and Colorectal cancer – **Remember LEGO-C**
 - Consider CT chest, abdomen and pelvis if there are no signs to suggest the primary source
- Guidance aims to support decision making but should not override a GP's clinical judgment
- Be aware of specific local guidance and pathways



Key actions for GPs

- Remember a chest X-ray is inexpensive, easily accessible, and health risks from the low level of radiation are usually outweighed by the benefits of getting the right diagnosis
- Take advantage of direct access to chest X-ray where available
- Remember to mark all chest X-ray requests as 'urgent-suspected cancer'. This ensures they are prioritised for both appointment and reporting
- Take steps to reassure patients that safety precautions are in place in primary and secondary care when sending patients for follow up investigations or referrals



Robust safety netting is vital

Chest X-rays play a valuable role as the initial investigation of symptomatic patients but it is important to consider the limitations of this test. Evidence suggests that a chest X-ray does not detect lung cancer in about 25% of cases⁹. Prompt ordering of a chest X-ray should be accompanied by safety netting for potentially false negative results. Take appropriate action if suspicion of lung cancer persists following a negative chest X-ray. Ensure you:

- Follow up with patients until their symptoms are explained or resolved
- Repeat examinations and history taking
- Encourage patients to book another appointment with you if their symptoms reoccur, they worsen or if new symptoms develop at any time
- SRG recommends that signs and symptoms persisting for >6 weeks require further investigation despite a normal chest X-ray. Take advantage of direct access to CT scans if you have access to this route



The Quick Reference Guide

The Scottish Referral Guidelines Steering group produced a **quick reference guide and app** to support GP awareness and implementation of the recommendations. The tools highlight the urgent and routine referral criteria, primary care management guidance and good practice points.

References

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- 5 Koo et al. Symptom signatures and diagnostic timeliness in cancer patients: a review of current evidence. Neoplasia 2018;20(2):165-174

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- 7 Mitchell et al. Understanding diagnosis of lung cancer in primary care: qualitative synthesis of significant event audit reports. BJGP 2013
- 8 NHS Scotland. Scottish Referral Guidelines for Suspected Cancer: cancerreferral.scot.nhs.uk/lung-cancer
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- 10 Cancer Research UK, <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/lung-cancer/risk-factors#heading=Two>, Accessed May 2021.
- 11 Bhopal et al. Lung cancer in never-smokers: a hidden disease. JRSM 2019; 112(7):269-271
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Case study



Jane is 72 years old and has never smoked. Jane presents to her GP with a dry persistent cough that she has had for at least a month. The GP examines her and takes a thorough history and discovers that Jane has noticed some weight loss too.

Would you order an urgent suspicion of cancer chest X-ray?

An urgent suspicion of cancer chest X-ray could be ordered, as per the SRG, as Jane has had a persistent cough for over 3 weeks. If there was no cough, and the weight loss was unexplained and persistent (more than 3 weeks) Jane would still meet the SRG criteria.

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

The GP and Jane have a call to discuss the chest X-ray result. The GP enquires about Jane's cough and weight loss which leads to the revelation that Jane is also increasingly tired and isn't eating very much. Jane wonders if an inhaler might help.

The GP reviews Jane's records once again and notices a full blood count has been ordered in the last 3 months, which noted thrombocytosis.

What could you do next?

A CT scan could be requested for Jane if the local pathway supports this or she should be referred on to an urgent suspected cancer pathway as clinical concern for cancer persists despite a normal chest X-ray.

Scottish Referral Guidelines highlight thrombocytosis as a sign GPs should be aware of for several cancers including lung cancer.

Diagnosis: Lung cancer

Lung cancer in never smokers:

Smoking is still the largest modifiable risk factor for lung cancer, accounting for around 70% of lung cancers¹⁰. However, 10–25% of lung cancers occur in people who have never smoked^{11,12}. Lung cancer in people who have never smoked is under recognised and can raise a diagnostic challenge for healthcare professionals^{11,12}.

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

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