For health professionals

GP Insight
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CANCER RESEARCH UK

Together we will beat cancer

Your guide to diagnosing lung cancer early

Information for GPs in England, Northern Ireland and Wales

Inside: guide for patient discussions about referrals

In the UK, only around 1 in 5 lung cancers are diagnosed at the earliest stage[1].

Why is early diagnosis of lung cancer so important?

The chances of someone surviving lung cancer is highly dependent on stage of diagnosis – **acting sooner on indications of lung cancer can lead to more treatment options and better outcomes for 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 stage[2].

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 patients[5].

In addition, co-morbidities such as asthma and COPD can make it difficult for patients and GPs to differentiate between new and potentially malignant symptoms, and those related to an underlying condition[7].

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.

Act sooner

Be aware of national and local guidance and pathways. Guidelines for recognition and referral for suspected cancer were published by NICE in 2015 and are now based on a lower referral threshold[8]. This means that more patients should be referred for tests and specialist consultation. Recommendations for GPs when presented with suspected lung cancer include:

- referral onto an urgent suspected lung cancer pathway
- offering an urgent chest X-ray

Guidance aims to support decision making but should not override a GP's clinical judgement, formed through history taking, elicitation of symptoms and examination. Guidelines can vary locally so it is also important to be aware of specific local guidance.

Remember that the risk threshold for referral to chest X-ray available for primary care is lower than that for patients referred on an urgent suspected cancer referral pathway. A chest X-ray is inexpensive, at approximately £20–£25 per test, 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 if you have it. Most test reporting takes place on the same day or within a week.

Safety netting

Evidence suggests that a chest X-ray does not detect lung cancer in about 20% of cases[9]. Prompt ordering of a chest X-ray should be accompanied by safety netting for potentially false negative results. To prevent you and your patients being over reassured by a negative chest X-ray result ensure you:

- encourage patients to book another appointment with you if their symptoms don't resolve, they worsen or if new symptoms develop at any time
- repeat examinations and history taking at subsequent appointments
- follow up with patients until their symptoms are explained or resolved

Additional changes in the lung cancer landscape

The NHS in England is funding targeted lung screening projects in some parts of England. Patients deemed at high risk of lung cancer may be invited for a low dose CT scan. For more information about location of the projects and patient eligibility please read the NHS England press release at: england.nhs.uk/2019/02/lung-trucks or visit cruk.org.uk/lunghealthchecks.

Visit **cruk.org/safetynetting** for tools to support safety netting practices

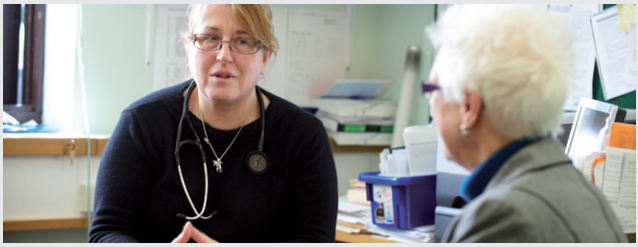
Download NICE referral guideline summaries at **cruk.org/NICEsummary**

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 she has noticed some weight loss too.

Would you order an urgent chest X-ray?

An urgent chest X-ray could be ordered, as per NG12 guidance, as Jane is 40 and over, and has a cough and weight loss. If Jane smoked or used to smoke, a chest X-ray could have been ordered based on her having either a cough or weight loss **only** (as only one of these symptoms is in NG12 when a patient has a smoking history).



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

Jane is advised to return if the symptoms don't resolve after 4–6 weeks. Jane presents again in 2 months with the same symptoms. The GP notices a full blood count has been ordered in the last 3 months, which noted thrombocytosis. The GP also asks about any other symptoms, which reveals Jane is also increasingly tired and isn't eating very much. Jane wonders if an inhaler might help?

What could you do next?

Exercising clinical judgement is critical in this scenario as NG12 does not have specific guidance on next steps for Jane's case.

If GP suspicion remains, next steps could include:

- ordering another chest X-ray
- refer to direct access CT (if available in your area)
- having a discussion with the respiratory medicine team

Lung cancer in never smokers:

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

The importance of safety netting is key in Jane's case.

1 Based on lung cancers with a known stage at diagnosis: between 2017-18 in Scotland (source: ISD Scotland); between 2013-17 in Northern Ireland (source: Queen's University Belfast); between 2014-2016 in Wales (source: NHS Wales); and between 2013-2017 in England (source: NCRAS)

2 Office for National Statistics (ONS), 5-year age standardised survival by stage, England 2013-2017

3 Mendonca et al. Pre-referral GP consultations in patients subsequently diagnosed with rarer cancers: a study of patient-reported data. BJGP 2016

4 Lyratzopoulos et al. Measures of promptness of cancer diagnosis in primary care: secondary analysis of national audit data on patients with 18 common and rarer cancers. BJC 2013

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

6 Walter FM et al. Symptoms and other factors associated with time to diagnosis and stage of lung cancer: a prospective cohort study. Br J Cancer. 2015;112:S6

7 Mitchell et al. Understanding diagnosis of lung cancer in primary care: qualitative synthesis of significant event audit reports. BJGP 2013

8 Suspected cancer: recognition and referral: NICE guideline [NG12]: NICE.org/NG12

9 Bradley et al. Sensitivity of chest X-ray for detecting lung cancer in people presenting with symptoms: a systematic review. BJGP 2019

10 Calculated by the Statistical Information Team at Cancer Research UK, 2018

11 Bhopal et al. Lung cancer in never-smokers: a hidden disease. JRSM 2019: 112(7);269-271

12 Couraud S et al. Lung cancer review in never smokers – a review. Eur J Cancer 2012;48(9):1299-311

What is an urgent referral? What you need to know

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Your GP has arranged for you to see a hospital doctor (specialist) urgently. This is to investigate your symptoms further. You may have some tests to find out what is wrong and whether or not it could be cancer.

1 Receiving an urgent referral

- Depending on where you live, you might get your appointment directly from your GP surgery, or by phone, post or email.
- It's very important that you attend your appointment. If you can't make it, call the hospital as soon as you can to rearrange.
- If your symptoms get worse, tell your GP.

Actions/questions to run through

- ☑ **Check your GP has your current contact details**.
- ☑ If you don't get your appointment details within a week, contact your GP or the **number of the hospital** if provided by the GP. Tell them it's an urgent referral.

2 Going to your appointment

- Your appointment letter will include: the time, where to go, who you're seeing and anything you need to do to prepare.
- You may be sent straight for tests, or you might see a specialist first.
- You may need to describe your symptoms again. It could help to write things down in advance.

Action/questions to run through

- ☑ Think about arranging transport, time off work or childcare for the day of your appointment.
- ☑ Make sure you know where you're going.
- ☑ Try to bring a family member or friend with you.
- ☑ Allow extra time in case it takes longer than you expect.
- ☑ Make sure your mobile phone is charged.

3 Having tests

- The appointment letter will include details of any tests you will have and any preparations you need to make.
- You may need to have more than one test.
- Call the number on your letter if you have any questions.

Action/questions

- ☑ Ask how you will get your results, how long it will take and make a note of this.
- ☑ The person testing you will not usually be able to tell you your results. You may have to wait to speak to your specialist.

4 Getting results

- Your specialist, or sometimes your GP, will tell you your results.
- You may need to have further tests.
- The time it takes to receive your results varies – you may have to wait several weeks.

Action/questions

- ☑ You may have another appointment for a number of reasons. Try to bring a family member or friend with you.
- ☑ Bring a pen and paper to make notes.
- ☑ If you have been waiting for your results for longer than you expected contact your GP surgery.