## For health professionals

### GP Insight for Scotland | October 2022

Together we will beat cancer



# 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 COVID-19 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.

The Scottish National Cancer Diagnosis Audit (data collected 1 October 2018 - 30 September 2019) found that the most common diagnosis (for 15% of patients audited) was lung cancer.¹

Patients often experience non-specific symptoms such as weight loss, appetite loss, fatigue and cough, which can easily be attributed to common respiratory conditions particularly in patients who smoke.<sup>2,3,4</sup> The red flag symptom of haemoptysis is a rare presenting symptom and has become even less common over time, reported in less than 5% of lung cancer patients in the year before their diagnosis.<sup>4</sup>

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 condition.<sup>5</sup> It has been reported that the majority (67%) of patients diagnosed with lung cancer have at least one comorbidity such as COPD or hypertension.<sup>5</sup> Be aware of a changing nature of a cough in patients with COPD or asthma – lung cancer risk is higher in people with COPD.<sup>6</sup>



## 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 stage.<sup>1</sup>



## Recognising and referring suspected lung cancer

The Scottish Referral Guidelines (SRG) for Suspected Cancer<sup>7</sup> 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 'urgentsuspected 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 upto 25% of cases. 8,9 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

- 1 Public Health Scotland (2021) National Cancer Diagnosis Audit: Summary Information from an audit of patients diagnosed between 1 October 2018 and 30 September 2019.
- 2 Hamilton W, Peters TJ, Round A, Sharp D. What are the clinical features of lung cancer before the diagnosis is made? A population based case-control study. Thorax. 2005 Dec;60(12):1059-65. doi:10.1136/ thx.2005.045880.
- **3** Koo et al. Symptom signatures and diagnostic timeliness in cancer patients: a review of current evidence. Neoplasia 2018;20(2):165-174.
- 2018;20(2):165-174.

  4 Chowienczyk, Sarah, Sarah Price, and Willie Hamilton. Changes in the Presenting Symptoms of Lung Cancer from 2000–2017: A Serial Cross-Sectional Study of Observational Records in UK Primary Care. British Journal of General Practice 70, no. 692 (2020): e193-e99.
- 5 Fowler, H., Belot, A., Ellis, L. et al. Comorbidity prevalence among cancer patients: a population-based cohort study of four cancers. BMC Cancer 20, 2 (2020). https://doi.org/10.1186/s12885-019-6472-9. 6 Cancer Research UK, Lung cancer risk.
- Accessed August 2022.
- 7 NHS Scotland. Scottish Referral Guidelines for Suspected Cancer: cancerreferral.scot. nhs.uk/lung-cancer.

- 8 Bradley SH, Bhartia BS, Callister ME, Hamilton WT, Hatton NLF, Kennedy MP, Mounce LT, Shinkins B, Wheatstone P, Neal RD. Chest X-ray sensitivity and lung cancer outcomes: a retrospective observational study. Br J Gen Pract. 2021 Oct 28,71(712):e862-e868. doi:10.3399/ BJGP.2020.1099.
- 9 Bhartia BSK, Hatton NLF, Aslam R, Bradley SH, Darby M, Hamilton WT, Hurst E, Kennedy MPT, Mounce LTA, Neal RD, Shinkins B, Callister MEJ. A prospective cohort evaluation of the sensitivity and specificity of the chest X-ray for the detection of lung cancer in symptomatic adults. Eur J Radiol. 2021.
  10 Cancer Research UK, Lung cancer statistics. Accessed May 2021.
- 11 Bhopal et al. Lung cancer in neversmokers: 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 Nov;144:109953. doi: 10.1016/j.ejrad.2021.109953.
- 13 Rait G, Horsfall L. Twenty-year sociodemographic trends in lung cancer in non-smokers: A UK-based cohort study of 3.7 million people. Cancer Epidemiol. 2020 Aug;67:101771. doi: 10.1016/j. canep.2020.101771.

#### 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 cancers. <sup>10</sup> However, 10–25% of lung cancers occur in people who have never smoked. <sup>11,12</sup> The incidence of lung cancer in never smokers in the UK has remained stable over the past two decades, but increased in women living in the least socially deprived areas. <sup>13</sup>

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