Early Detection of Lung Cancer

Information for General Practitioners

www.3weekcough.org

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WE'RE WAITING, THEY SHOULDN'T

Doncaster has one of the highest incidences of lung cancer in the region. Smoking, a lifetime's work in heavy industry and social depravation are key risk factors and they are particularly acute in some of our communities.

But it doesn't stop with higher risks. Local research[1] points to particular social and cultural issues compounding these issues, causing people to delay going to their doctors. This is causing concern that many patients are not getting a diagnosis early enough to get curative or effective treatment.

Local services, ready and waiting

Reducing rates of lung cancer and improving diagnosis and treatment of people with the disease are priorities for Doncaster and its Primary Care Trust (PCT) is leading the way with an innovative 'social marketing' programme.

Social marketing[2] in health has been defined by the Department of Health as:

...the systematic application of marketing concepts and techniques to achieve specific behavioural goals relevant to improving health and reducing health inequalities.
French & Blair Stevens 2006[2]

The programme adopts a dual approach – on the one hand it encourages people to go to their GPs sooner and on the other, it sets out to improve the responsiveness of local health services. The two elements of the programme are equally important to achieving the key objectives:

- raising public awareness of the early symptoms of lung cancer
- tackling the problem of people being reluctant to go and see their doctor about these symptoms
- encouraging doctors to refer the right people for a chest X-ray and follow the NICE guidelines, to avoid further diagnostic delays.

This push / pull approach has been developed around the findings of important local research[1] done in response to concerns raised by local clinicians.

Getting ready – GP's role

These materials are part of the approach to encourage GPs to refer appropriate patients for a chest X-ray.

You have been given this document as your practice serves communities particularly at risk of lung cancer and where research has shown there are likely to be significant barriers to people seeing their GP's soon enough.

Remember, we're waiting, but they shouldn't.

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1. TOD, A. AND CRAVEN J. (2006) Diagnostic delay in lung cancer: Barriers and facilitators in delay. The University of Sheffield. Sheffield ISBN 1-902411-45-5

2. For more information on Social Marketing in health visit the National Social Marketing Centre's website at www.nsms.org.uk

Mr Smith is in again asking for antibiotics and something for that cough.

John is worried that this cough and pain may be lung cancer.

Could this be lung cancer?

Three key symptoms – following NICE guidance

Our aim is to encourage and empower people to make an appointment to see their doctor and ask for an X-ray.

The public communications element of the programme is focused on raising awareness of the key symptoms of lung disease in an empathetic manner, rather than playing on people's fears. We are targeting high-risk communities in specific parts of Doncaster, potential patients and their families, who often encourage loved ones to go to their GP. As the research also demonstrated misunderstandings about symptoms, it is very important to be clear and focused. This will aid understanding and will help people explain what they need to their GPs or to your surgery's receptionist.

As a consequence, the focus is on three key symptoms that are easily recognisable and also reflect the NICE guidance on lung cancer, which advises that someone who has:

- **a new and persistent cough for more than 3 weeks**
- **recently started to feel breathless**
- **blood flecks in their phlegm**

should be offered an urgent chest X-ray.

Improving local services

The second element of the programme focuses on improving local services, ready for when patients do present by:

- engaging directly with GPs, pharmacists, community health workers and other professional groups and key change agents
- training trainers and professional groups in brief intervention for early intervention in lung cancer

Another reason why lung cancer diagnosis might be delayed is that GPs do not follow the NICE guidance. Explanations for this are:

- On average a GP will see a new patient with lung cancer every eight months and so be unfamiliar with the referral and care guidance.
- A GP may be worried of making an inappropriate referral for a chest X-ray and overwhelming the local radiography services
- Concern over exposing the patient to unnecessary radiation
- Previous experience - GP's may have been criticised/blamed for ordering unnecessary X-rays in the past
- The lung cancer symptoms may be masked by other symptoms such as asthma, bronchitis, arthritis
- The patient may minimize the symptoms and their impact GPs may delay referring ex or non-smokers for a chest X-ray as they think their risk of lung cancer is minimal.
- A GP might not know when to refer for a repeat chest X-ray if a patient has persistent symptoms and a recent negative X-ray.
- Tendency for a focus on smoking, therefore interventions aimed at minimizing risk in ex or non-smokers

This document also outlines the NICE guidance to help doctors respond accordingly.

Doncaster – overcoming barriers, improving lives

For up to 80% of patients diagnosed with lung cancer in the UK, their disease is inoperable because it has been diagnosed too late. Local research has studied the reasons why people delay going to their GPs. This research has provided in-depth understanding, which lies at the very heart of the programme. Six themes emerged.

Experience of symptoms
Symptoms can seem minor and patients attribute them to other health problems e.g. a winter virus, a chronic chest problem, etc. They think (or want to believe) that the problem will clear up if left alone.

Knowledge
Awareness of lung cancer is poor, even among smokers. Ex-smokers or non-smokers think they have no risk of lung cancer. And even if they suspect something serious, people think that nothing can be done so they have no motivation to report symptoms.

Fear
They are frightened that the symptoms may mean something serious, for example, lung cancer and this is invariably seen as fatal. They also think that interventions will be unpleasant and embarrassing.

Blame and stigma
Smokers think that they will be blamed for their illness and that they are undeserving of health care. Non-smokers also felt healthcare professionals didn't believe their non-smoking status and underestimated the dangers of passive smoking.

Cultural
A great value is placed on stoicism, not making a fuss and 'putting a brave face on things'. This is particularly true for older men, especially those who have worked in traditional industries.

GP and hospital services
People are worried about wasting doctors' time and adding to the strain on hard-pressed NHS resources. They have also had mixed experiences with GPs and other healthcare professionals.

Understanding these barriers will help GPs, surgery staff and health professionals provide a positive experience to help empower people as they make an appointment and visit their GP to ask for an X-ray.

"Another reason why a lung cancer diagnosis might be delayed is that GP's do not follow the NICE guidance."

Lung Cancer in Primary Care

By Dr Trevor Rogers

Although commoner in men (60% of cases), lung cancer is now the commonest cause of cancer death in both sexes. It is rare in the under the age of 40 and in people who have never smoked. Just over 20% cases survive 1 year with a 5.5% 5-year survival (cure). Most cases are unfortunately incurable due to the advanced stage at presentation. The figures for the UK are 5-10% worse than Europe and USA.

As well as smoking other risk factors for lung cancer include COPD, fibrosing alveolitis and asbestosis (or heavy enough asbestos exposure to have casued asbestosis (i.e. 1 year of very heavy exposure, such as spraying, insulation, demolition etc, or 5-10 years of moderate exposure).

The main issue in primary care is remembering to order a chest X-ray when lung cancer is a possibility.

As recommended by NICE, presentations meriting an urgent chest X-ray would include the following important "early" symptoms:

- Haemoptysis
- Unexplained or persistent (>3 weeks):
    - cough
    - chest/shoulder pain
    - dyspnoea

and for investigation of

- weight loss
- chest signs
- hoarseness
- finger clubbing
- features suggestive of metastasis from a lung cancer (for example, in brain, bone, liver or skin)
- cervical / supraclavicular lymphadenopathy

although these features are usually indicative of incurable disease.

An urgent 2-week wait referral should be made irrespective of chest X-ray result where there is a high clinical suspicion of lung cancer, i.e. persistent haemoptysis in smokers / ex-smokers >40 years old. It is reasonable to offer patients an urgent 2 week wait referral while awaiting the result. It is worth pointing out that all 3 of these factors should be present; if they aren't and the chest X-ray does not indicate cancer, lung cancer is unlikely and a less urgent referral should be considered.

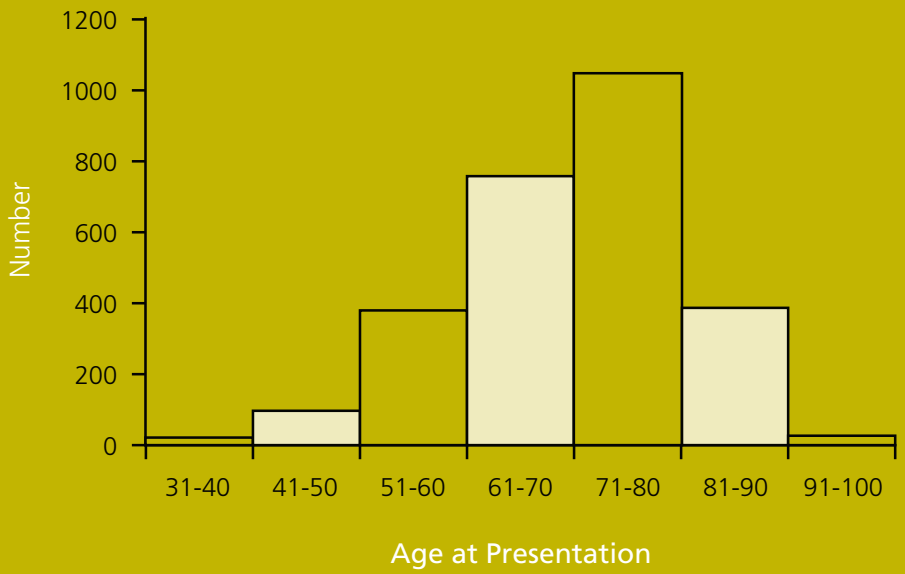
Emergency referral should be considered for patients with signs of superior vena cava obstruction (swelling of the face / neck and fixed elevation of JVP) or stridor.

How to diagnose lung cancer

Patients will often have had symptoms you would associate with lung cancer for months before presenting to you. Unfortunately, they generally do not know what the symptoms of lung cancer are, and hence the current community-based intervention is being launched, educating patients about presenting with possible early symptoms for a chest X-ray. The chest X-ray remains the main diagnostic tool for diagnosing lung cancer and is very sensitive (false negative rate is a few percent). If it is normal you should still refer urgently a patient older than 50 with persistent haemoptysis, stridor or new coarse wheeze, SVCO etc. If the X-ray reports consolidation, the clinical features are not those of a pneumonia and the patient is high risk, an urgent referral is still merited.

Remember it is most important to try to identify the disease early so a new or changed cough, any haemoptysis or new chest discomfort should prompt a chest X-ray, (even if alternative explanations exist, such as bronchitis or an exacerbation of COPD). Risk increases with age as shown from the Doncaster lung cancer database:

A Graph to Show That the Risk of Lung Cancer Increases With Age According to the Doncaster Lung Cancer Database



In a high risk population there is evidence to suggest you will find about 3 hitherto undiscovered lung cancers for every 100 investigations ordered even if patients are asymptomatic and these patients will generally do well. However, screening of asymptomatic subjects has so far not been shown to reduce overall mortality, so the present emphasis must be on identifying early symptomatic disease.

NICE Guidance - Access to Services and Diagnosis

1.1 Access to services

1.1.1 All patients diagnosed with lung cancer should be offered information, both verbal and written, on all aspects of their diagnosis, treatment and care. This information should be tailored to the individual requirements of the patient, and audio and videotaped formats should also be considered.

1.1.2 Treatment options and plans should be discussed with the patient and decisions on treatment and care should be made jointly with the patient. Treatment plans must be tailored around the patient's needs and wishes to be involved, and his or her capacity to make decisions.

1.1.3 The public needs to be better informed of the symptoms and signs that are characteristic of lung cancer, through coordinated campaigning to raise awareness.

1.1.4 Urgent referral for a chest X-ray should be offered when a patient presents with:

- haemoptysis, or
- any of the following unexplained or persistent (that is, lasting more than 3 weeks) symptoms or signs:
    - cough
    - chest / shoulder pain
    - dyspnoea
    - weight loss
    - chest signs
    - hoarseness
    - finger clubbing
    - features suggestive of metastasis from a lung cancer (for example, in brain, bone, liver or skin)
    - cervical/supraclavicular lymphadenopathy.

1.1.5 If a chest X-ray or chest computed tomography (CT) scan suggests lung cancer (including pleural effusion and slowly resolving consolidation), patients should be offered an urgent referral to a member of the lung cancer multidisciplinary team (MDT), usually a chest physician.

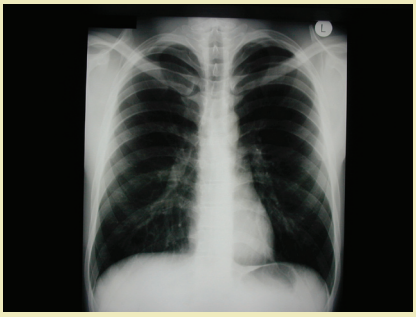
1.1.6 If the chest X-ray is normal but there is a high suspicion of lung cancer, patients should be offered urgent referral to a member of the lung cancer MDT, usually the chest physician.

1.1.7 Patients should be offered an urgent referral to a member of the lung cancer MDT, usually the chest physician, while awaiting the result of a chest X-ray, if any of the following are present:

- persistent haemoptysis in smokers / ex-smokers older than 40 years
- signs of superior vena caval obstruction (swelling of the face / neck with fixed elevation of jugular venous pressure)
- stridor.

Emergency referral should be considered for patients with superior vena caval obstruction or stridor.

1.2 Diagnosis



1.2.1 Where a chest X-ray has been requested in primary or secondary care and is incidentally suggestive of lung cancer, a second copy of the radiologist's report should be sent to a designated member of the lung cancer MDT, usually the chest physician. The MDT should have a mechanism in place to follow up these reports to enable the patient' s GP to have a management plan in place.

1.2.2 Patients with known or suspected lung cancer should be offered a contrast-enhanced chest CT scan to further the diagnosis and stage the disease. The scan should also include the liver and adrenals.

1.2.3 Chest CT should be performed before:

- an intended fibreoptic bronchoscopy
- any other biopsy procedure.

1.2.4 Bronchoscopy should be performed on patients with central lesions who are able and willing to undergo the procedure.

1.2.5 Sputum cytology is rarely indicated and should be reserved for the investigation of patients who have centrally placed nodules or masses and are unable to tolerate, or unwilling to undergo, bronchoscopy or other invasive tests.

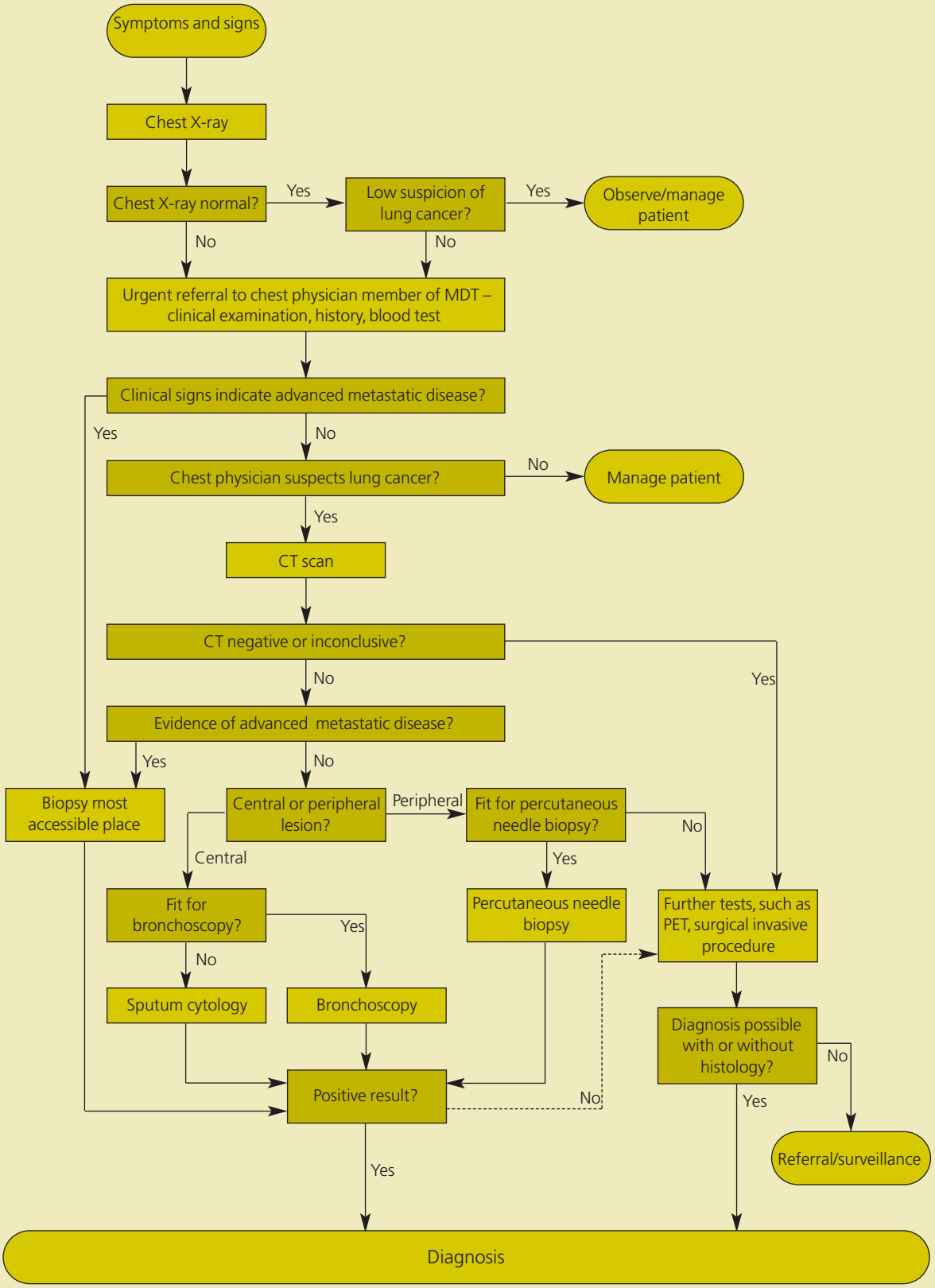
1.2.6 Percutaneous transthoracic needle biopsy is recommended for diagnosis of lung cancer in patients with peripheral lesions.

1.2.7 Surgical biopsy should be performed for diagnosis where other less invasive methods of biopsy have not been successful or are not possible.

1.2.8 Where there is evidence of distant metastases, biopsies should be taken from the metastatic site if this can be achieved more easily than from the primary site.

1.2.9 An 18F-deoxyglucose positron emission tomography (FDG-PET) scan should be performed to investigate solitary pulmonary nodules in cases where a biopsy is not possible or has failed, depending on nodule size, position and CT characterisation.

NICE Guidance - Access to Services and Diagnosis



For full details, see the NICE guideline (www.nice.org.uk/CG024NICEguideline)

In Summary

A chest X-ray should be ordered when lung cancer is a possibility, particularly when patients present with the following important "early" symptoms:

- Haemoptysis
- Unexplained or persistent (>3 weeks):
    - cough
    - chest / shoulder pain
    - dyspnoea

Useful Sources of Information

Cancer Backup
http://www.cancerbackup.org.uk/Cancertype/Lung

The Roy Castle Lung Cancer Foundation
http://www.roycastle.org/

Cancer Research UK
http://www.cancerhelp.org.uk/help/default.asp?page=2787

It's Time To Focus On Lung Cancer
http://www.lungcancer.org/

British Lung Foundation
http://www.britishlungfoundation.org/lung-cancer.asp?liv=12

BBC Health Website
http://www.bbc.co.uk/health/conditions/cancer/typescancer_lung.shtml

National Institute for Clinical Excellence (NICE)
http://guidance.nice.org.uk/CG24 (NICE)

Net Doctor
http://www.netdoctor.co.uk/diseases/facts/lungcancer.htm

NHS Direct
http://www.nhsdirect.nhs.uk/articles/article.aspx?articleid=79

Medline Plus
http://www.nlm.nih.gov/medlineplus/lungcancer.html

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