

Pulmonary Nodule Protocol Improving the Patient's Experience



Introduction and Background

In May 2009 the National Lung Cancer Nurses Forum (NLCFN) supported by Lilly Oncology, held a workshop for interested forum members to develop a project team to address issues pertinent to current practice.

It was highlighted that Lung Cancer Clinical Nurse Specialists (CNS) are more frequently coming into contact with patients who have 'incidental' pulmonary nodules with no histological diagnosis, at an early point in their pathway. This early contact with patients pre-diagnosis is recommended by the NICE guidelines (NHS 2005)

Even though these patients do not have a cancer diagnosis they are followed up with interval CT scanning as there is a potential that these nodules are malignant (Tan et al 2003)

Recent evidence has shown that this raises anxiety and uncertainty in these patients (Downer 2009). This also supports anecdotal evidence from lung cancer CNS's.

A working group was established to look at support currently available for these patients. A literature search was completed. The majority of information found discussed the radiological evaluation and management of these nodules. There was only one piece of research recently carried out that examined the direct affect on patients. This research showed that the uncertainty and concerns caused by the prolonged period of investigation can prove to be a potential problem for the patient (Downer 2009).

The aim of this protocol is to guide Lung Cancer CNS's in supporting patients having interval CT scans for pulmonary nodules. A key part of this protocol is the production of a Patient Information Leaflet.

The protocol and leaflet support Downer's work which concluded that there was a need for greater information and communication for this group of patients (Downer 2009).

Definition of pulmonary nodules

A solitary pulmonary nodule (SPN) is defined as an intraparenchymal lung lesion that is <3cm in diameter and is not associated with atelectasis or adenopathy. (Tuddenham 1984)

Multiple well defined nodules are either likely to be benign or due to metastases. The presence of calcification in any nodules is likely to mean it is a granuloma and therefore benign (J Entwisle 2008)

Definition of suitable patient group

The suitable patient group is any patient who has been identified radiologically as having pulmonary nodules, whether classified as high or low risk.

Low Risk <40 years
 Non smoker/minimal smoking history
 No known cancer

High Risk Significant smoking history
 Past history of known primary malignancy
 Known asbestos exposure

(Fleischner Society Guidelines 2005)

If available please refer to your local protocol as these may vary.

Pulmonary Nodule Protocol **Improving the Patient Experience**

Why: To reduce patient anxiety and uncertainty upon notification of the presence of a pulmonary nodule/s.

How: We recommend that the supporting Patient Information Leaflet will be offered at the point when the patient is informed of the presence of the pulmonary nodule(s), whether that be as an inpatient, at an outpatient appointment or by telephone

We recommend that these conversations adhere to the:
“NLCFN Guideline to Enable Lung Cancer Nurse Specialists to consistently Communicate Key MDT Decisions to Patients.”

Recommendations for Implementation:

It is appreciated that there are local variances in the patient’s pathway and referral experience.

Review

Prior to the implementation of this protocol, a patient survey will have been completed. In order to assess the value of this work, a comparative patient survey will be completed within 12 months following implementation of this protocol.

Patient Information Leaflet

Patient Information for Solitary Pulmonary Nodules

What is a Pulmonary Nodule?

A pulmonary nodule is an area of roundish shadowing usually 3cm (approximately 1 inch) or smaller in the lung. It does not usually cause any symptoms but can be seen on a CT scan (Computed Tomography) and sometimes on a chest x-ray.

Why do pulmonary nodules occur?

Pulmonary nodules are very common. Approximately 1 in 4 (25%) of older people who smoke or who are ex smokers have nodules on a CT scan. People who have never smoked may also have nodules on a CT scan.

Most nodules are benign (non cancerous) and maybe caused by scarring from previous lung infections. They are very common in people who have had TB (Tuberculosis), and can occur in people who have had other conditions such as Rheumatoid Arthritis.

In a small number of people the nodule could be a very early lung cancer or occasionally a secondary cancer that has spread from elsewhere in the body.

Diagnosing Pulmonary Nodules

Nodules are sometimes found on a chest x-ray but in most cases they are too small and are only seen when the person has a CT scan. Pulmonary nodules are often found when the person is having a CT scan for another reason.

It is not always possible to know what the cause of a nodule is from the CT scan alone. Because nodules are small a biopsy (a test performed to get a piece of the nodule) may be very difficult. Instead, we keep an eye on the nodule by repeating the CT scan after a certain amount of time to see whether it grows.

Benign (non cancerous) nodules grow very slowly, or may not grow at all. On the other hand, Malignant (cancerous) nodules will eventually grow though this can happen slowly.

We can check if the nodule is changing by repeating a Chest x-ray or CT scan over a period of months or years. Because nodules can change very slowly there is no point in doing Chest x-rays or CT scans any sooner than this.

If the nodule grows or changes in any way then your Chest Specialist (Doctor) may arrange for you to have further tests.

What happens next?

Your Chest Specialist will discuss your information at a team meeting with other specialist doctors and nurses. A repeat chest x-ray or CT scan will then be arranged. This is usually done three months after your first chest x-ray or CT scan, but it could be 6-12 months in some cases. It may be necessary to have a number of CT scans over a number of years. This will depend on:

- your age
- if you smoke
- your general health

In some cases you may have another type of scan arranged called a PET-CT.

Your Chest Specialist will discuss the results of the scan at your outpatient appointment. This should be soon after your CT scan. Sometimes the nurse specialist may give you the results of the CT scan over the phone.

If you have any of the following symptoms between your scans, then you should inform your nurse specialist who may wish to contact your chest specialist to see you sooner.

- Pain in your chest
- Shortness of breath
- Repeated chest infections
- Coughing up blood

If you have any questions or worries about your condition please contact *insert name (Nurse Specialist) and contact details.*

References

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