



Waitemata
District Health Board

Te Wai Awhina

Lung Cancer

What does this diagnosis mean?

Lung Cancer is the most common cancer in Australian men and the third most common for women. Lung Cancer is a malignant growth sometimes called a neoplasm, tumour, or malignancy, which arises from the lungs and can spread to other parts of the body causing secondary growths called metastases. Cancers arising in other parts of the body can also spread to the lungs, and these are called lung secondaries or pulmonary metastases.

What causes lung cancer?

Our bodies are made up of tiny cells which normally repair and reproduce themselves. Sometimes, however, they develop in an abnormal way, forming lumps which are then called tumours. Lung cancer arises as a result of permanent changes to cells lining the bronchial airways. The most common cause of these changes is inhalation of tobacco smoke. Less commonly, exposure to asbestos, marijuana smoke, and a number of other chemicals can cause some people to develop cancer for no obvious reason.

What are the types of lung cancer?

The common types are adenocarcinoma, squamous cell carcinoma, large cell undifferentiated carcinoma, and small cell carcinoma (SCLC). The first three are grouped as non small cell lung cancer (NSCLC) because the treatment of these is the same. NSCLC accounts for approximately 75% of all lung cancers.

What are all the symptoms of lung cancer?

In its early stages, lung cancer usually causes no noticeable symptoms. As it grows, it can affect the surrounding lung tissue, causing such symptoms as cough, blood-stained phlegm (sputum), breathlessness and chest pain. The cancer can also release substances that reduce appetite and cause weight loss with tiredness. Unless detected and treated early, lung cancer will eventually spread to other parts of the body, and this can cause further problems such as abnormal lumps, organ failure, and pain.

How is lung cancer detected?

Most commonly, lung cancer is suspected because of an abnormal chest x-ray which may have been taken for other reasons. Lung Cancer can be

confirmed by detecting cancer cells in the phlegm, by doing a biopsy of the tumour directly or from other areas of the body to which the cancer has spread. Sometimes the biopsy is performed via a procedure called a bronchoscopy, whilst at other times a needle can be passed through the chest wall into the cancer under x-ray control. X-ray scans and blood tests help to define the extent of spread of the cancer and hence direct the most appropriate treatment.

How is lung cancer treated?

Treatment will depend on the type of lung cancer and the extent of its spread within or beyond the chest. The individual must also be assessed to see if they are fit for the required treatment.

Surgery is the most effective treatment for NSCLC that has not spread outside the chest. For people whose tumour has spread beyond the chest, operation is not possible so radiotherapy and sometimes chemotherapy are used.

NSCLC that has already spread beyond the chest or has come back into the chest following surgery or radiotherapy cannot be cured, and treatment in these situations is aimed at relieving symptoms, improving the quality of life, and in some cases prolonging life. These treatments include radiotherapy, chemotherapy, pain killing medications, and other medications to control symptoms.

SCLC is generally treated with a combination of chemotherapy and /or radiotherapy depending on the extent of the tumour. Unfortunately, less than 5% of patients with SCLC can be cured at the time of diagnosis.

Whatever treatment is recommended, it is important to assess at the outset whether the intention of that treatment is to cure or to reduce symptoms. Curative treatment aims to remove all the cancer cells and thereby achieve a long-term survival, whereas treatment of symptoms (palliative treatment) aims to relieve or prevent symptoms but does not set out to remove all the cancer tissue completely. This improves the quality of life and may also prolong life, but does not achieve a long-lasting cure.

With any treatment it is important to ask about side-effects, to consider the expense of investigations and treatment and the disruption that treatment might cause to your daily life. Assessing the benefits and disadvantages of any treatment will allow an appropriate decision about the treatment options. The likelihood and nature of side-effects due to treatment in any individual should be discussed with the doctor, patient and family, bearing in mind that the rate of serious side-effects from surgery, radiotherapy and chemotherapy in lung cancer treatment is relatively low.

What questions should be asked about any proposed treatment?

When treatment is recommended by your doctor(s), it is important to know whether the intention of this treatment is to cure or palliate. This decision is based on the cell type, the localisation of the cancer cells, and whether there has been any spread beyond the lung tissue itself. It is also important to ask about risks or side-effects on any proposed treatment so that the correct decisions regarding appropriate treatment can be made.

What is the outcome of lung cancer?

The outcome of lung cancer depends on the cell type, how far it has spread, and the person's level of health and suitability for surgery. If NSCLC is surgically removed at an early stage there is a cure rate of over 70%.

For more advanced NSCLC but limited to the chest, the cure rate with combinations of surgery, radiotherapy and chemotherapy is less than 50%.

The survival with widespread NSCLC that has spread outside the chest, together with SCLC, is far less satisfactory. As many cancers have already spread at the time of diagnosis, only around 15% of all lung cancers are cured. The aim of treatment in incurable lung cancer is to reduce symptoms and maintain the quality of life to allow terminal lung cancer patients to maintain their dignity and to be cared for at home or in a hospice.

How can the risk of lung cancer be reduced?

Lung cancer is the leading cause of death from cancer in Australia. As more than 85% of lung cancers relate to tobacco smoking, avoiding or stopping smoking will greatly reduce the risk of developing the disease.

The risk of lung cancer in ex-smokers does decrease with time, however there is still a higher than normal risk even after ten years of not smoking. Smokers and ex-smokers who notice new respiratory symptoms such as coughing, hoarseness of voice, or weight loss, should see medical attention immediately.

Emotional support

The diagnosis of lung cancer can be a very traumatic experience for both an individual and their family. Each person reacts differently. Some people may find it difficult to cope with their diagnosis and become very anxious, depressed or angry. Emotional support as well as being informed about the disease, its treatment, and the necessity or otherwise of hospitalisation, can be very helpful in assisting patients and their families to come to terms with the diagnosis.