

Lung Cancer

Lung cancer develops when lung cells grow uncontrollable and abnormal. These cells then grow into a mass or tumour and may invade surrounding tissues and organs. They may also spread to other parts of the body. In 2018, more than 2 million new cases of lung cancer were reported worldwide. In the same year, almost 1.8 million lung cancer deaths occurred worldwide, and this figure represents 18.4% of all cancer related deaths.

After breast cancer, this is the second most common type in the world. Among cancer-related deaths, lung cancer is the leading cause in South Africa. Non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC) are types of lung cancer. Another form of cancer that affects the lung lining is called pleural mesothelioma.

What are the signs and symptoms of lung cancer?

Signs and symptoms typically appear when this cancer has reached other organs such as the brain, bone, and liver, or when other parts of the respiratory system have been affected. In some cases, symptoms may appear earlier. These include:

- Coughing that does not improve or worsens
- Chest pain that gets worse with deep breathing, coughing, or laughing
- Shortness of breath
- Hoarseness of the voice
- Coughing up blood/ blood in sputum or phlegm
- Wheezing of the chest
- Recurrent chest infections such as bronchitis and pneumonia
- Tiredness most of the time
- Loss of appetite
- Unintentional weight loss, bone pain and muscle weakness may be experienced when the cancer has progressed.

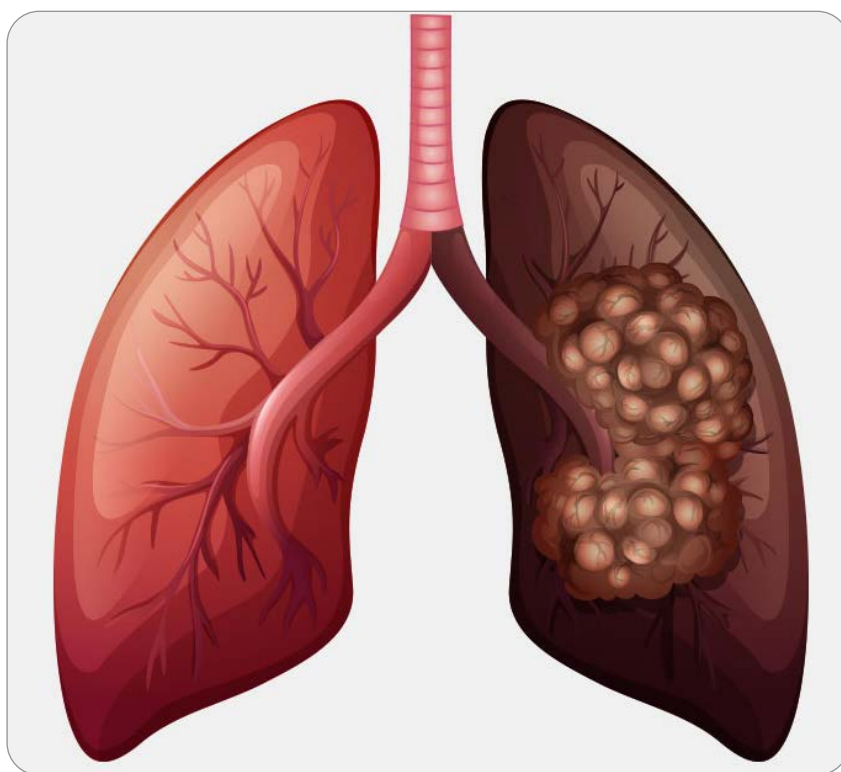


Figure 1: Cancer in the lungs (Source: Netmeds, 2021)

How is lung cancer diagnosed?

In the presence of suspicion of lung disease, blood tests and chest X-rays may be ordered to rule out other causes of the symptoms. A CT scan may also be performed. Sputum may be collected to rule out tuberculosis. Diagnosis requires a biopsy where tissue is taken from a suspicious mass for laboratory analysis. A biopsy is performed to confirm a cancer diagnosis and to determine the type of cancer that exists.

Stages of lung cancer

The stages of lung cancer are:

- Localised – when the cancer is only confined to the lung
- Regional – cancer has spread to the lymph nodes or glands within the chest
- Distant – when the cancer has spread to other body parts.

How is lung cancer treated?

Treatment depends on the individual's health status, cancer type, size and position, and how far the disease has spread. Treatment may be provided to control the cancer to minimise the spread. Other treatments are used to improve quality of life and/or reduce symptoms.

- **Surgery** - is considered the “gold standard” for treating early-stage lung cancer when the cancer cells are still located in the lung. This is done to remove the cancerous tissues.
- **Chemotherapy** – is a form of treatment involving the use of drugs or medicines to shrink or kill cancer cells. This treatment may be injected directly into a vein or taken orally as a pill.
- **Targeted agents** – these are a newer class of medicines. This treatment uses drugs or other substances to identify and attack specific cancer cells without harming normal cells. They can also be taken by mouth or given by drip.
- **Radiation therapy** - is a form of high energy rays (X-ray) used to kill cancer cells. This mode of treatment can be used alone or in combination with chemotherapy, with or without surgery. It is often beneficial in advanced cancer when cancer has spread beyond the lungs to relieve pain, shortness of breath, or coughing.

How can lung cancer be prevented?

- By reducing exposure to things that increase the risk of developing the disease can prevent lung cancer.
- It is stopping smoking and avoiding inhaling smoke from people who smoke. This applies to smoking any product containing nicotine.
- Minimise exposure to chemicals known to cause cancer, including arsenic, asbestos, coal products, and diesel exhaust fumes.
- Employers need to provide guidelines and resources in the workplace to protect workers from exposure to

harmful substances.

- Employers need to provide guidelines and resources in the workplace to protect workers from exposure to harmful substances.

Lung cancer screening

The South African Thoracic Society recommends annual low-dose computed tomography (LDCT) be offered to patients between 55-74 years of age who are current or former smokers, have quit within the preceding 15 years, with at least a 30-pack year smoking history and with no history of lung cancer.

What is covered under PMB level of care?

“Cancer of lung, bronchus, pleura, trachea, mediastinum & other respiratory organs – treatable” are included in the Prescribed Minimum Benefit conditions under Diagnosis and Treatment Pair (DTP) code 950D.

According to the PMB regulation, treatable cancers are defined as follows:

- they involve only the organ of origin and have not spread to adjacent organs;
- there is no evidence of distant metastatic spread;
- they have not, by means of compression, infarction, or other means, brought about irreversible and irreparable damage to the organ within which they originated (for example, brain stem compression caused by a cerebral tumour) or another vital organ;
- if points (i) to (iii) do not apply, there is a well demonstrated five-year survival rate of greater than 10% for the given therapy for the condition concerned.

Regarding PMB level of care for DTP code 950D, medical schemes must fund for the “medical and surgical management, which includes chemotherapy and radiation therapy” as specified for DTP code 950D. The medical schemes must pay for PMBs’ diagnosis, treatment, and care according to the PMB Regulations irrespective of the member’s plan type. Screening with a CT scan is not a PMB level of care.

The Council for Medical Schemes has published the PMB Definition Guidelines for [small lung cancer](#), [non-small cancer](#), and [mesothelioma](#). These provide detailed information on the tests and treatment options that are PMB level of care and those that are not.

References

1. American Cancer Society. 2019. Signs and symptoms of lung cancer. [online]. Available from: <https://www.cancer.org/cancer/lung-cancer/detection-diagnosis-staging/signs-symptoms.html> [Accessed 2 November 2021].
2. Cleveland Clinic. 2021. Lung cancer. [online]. Available from: <https://my.clevelandclinic.org/health/diseases/4375-lung-cancer> [Accessed 29 October 2021].
3. Centers for Disease Control and Prevention. 2021. What is lung cancer? [online]. Available from: https://www.cdc.gov/cancer/lung/basic_info/what-is-lung-cancer.htm [Accessed 29 October 2021].
4. Council for Medical Schemes. 2018. Draft PMB definition guideline for non-small cell lung cancer. [online]. Available from: https://www.medicalschemes.com/files/PMB%20Definition%20Project/DraftPMBDefinition_GuidelineForNonSmallCellLungCancer.pdf [Accessed 29 October 2021].
5. Council for Medical Schemes. 2018. PMB definition guideline for mesothelioma. [online]. Available from: <https://www.medicalschemes.com/files/PMB%20Definition%20Project/FinalPMBDefGdMesothelioma.pdf> [Accessed 29 October 2021].
6. Council for Medical Schemes. 2018. PMB definition guideline for small cell lung cancer. [online]. Available from: <https://www.medicalschemes.com/files/PMB%20Definition%20Project/FinalPMBDefGdSml-CellLungCancer.pdf> [Accessed 29 October 2021].
7. Koegelenberg, C.F., Dorfman, S., Schewitz, I., Richards, G.A., Maasdorp, S., Smith, C. & Smith, K.; on behalf of the South African Thoracic Society. 2019. Recommendations for lung cancer screening in Southern Africa. *Journal of Thoracic Disease*, 11(9):3696-3703.
8. Sung, H., Ferlay, J., Siegel, R.H., Laversanne, M., Soerjomataram, I., Jemal, A. & Bray, F. 2021. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *Cancer Journal for Clinicians*, 71:209-249.
9. van Eeden, R., Tunmer, M., Geldenhuys, A., Naylor, S. & Rapoport, B.L. 2020. Lung Cancer in South Africa. *Journal of Thoracic Oncology*, 15 (1):22-28

The Communications Unit would like to thank the Clinical Unit for assisting with this edition of CMScript

Contact information:

information@medicalschemes.co.za
Hotline: 0861 123 267
Fax: 012 430 7644

The clinical information furnished in this article is intended for information purposes only and professional medical advice must be sought in all instances where you believe that you may be suffering from a medical condition. The Council for Medical Schemes is not liable for any prejudice in the event of any person choosing to act or rely solely on any information published in CMScript without having sought the necessary professional medical advice.

