# GLOBALLY, LUNG CANCER IS THE MOST COMMONLY DIAGNOSED TYPE OF CANCER...[1,2]

Cases per 100,000

- ≥ 27.5
- 16.0–27.5
- 8.0–16.0
- 2.9–8.0
- < 2.9
- No data
- Not applicable

Estimated age-standardized rates (World) of incidence cases, both sexes, lung cancer, worldwide in 2012[3]

## ...BUT LUNG CANCER IS NOT ONE DISEASE[4]

- Small cell lung carcinoma    15%
- Non-small cell carcinoma 80-85%
  - Adenocarcinoma    40%
  - Sqamous cell carcinoma    30%
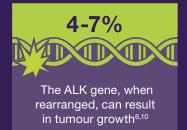  - Large cell carcinoma    10%
  - Other    3%

Research has shown that there are a variety of different biomarkers associated with non-small cell lung cancer. Some biomarkers arise as a result of point mutations, and some reflect a range of protein expression. Both types can be used to help determine treatment options, and include:[5,6]
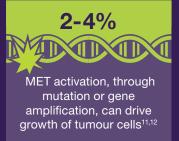
### 10-40%*
The EGFR gene may play a role in cancer cell growth[5,7]

### 10-25%*
KRAS gene mutations can cause cells to grow and divide in an uncontrolled manner[8,9]

### 4-7%
The ALK gene, when rearranged, can result in tumour growth[6,10]

### 2-4%
MET activation, through mutation or gene amplification, can drive growth of tumour cells[11,12]
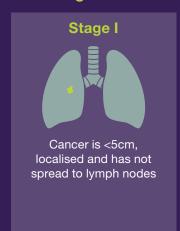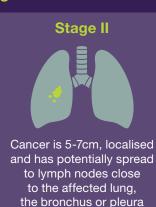
### 19%-100%[14]
Expression of **programmed death-ligand 1** (PD-L1), a protein expressed on the surface of cancer cells that helps them evade the immune system, may also help characterise the diversity of advanced NSCLC. Aberrant expression of PD-L1 has been found ranging from 19% to 100% of NSCLC patients.[13-15]
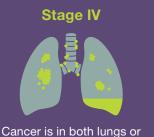
## Lung cancer is staged on a scale of I to IV, according to the severity of disease:[16]

### Stage I
Cancer is <5cm, localised and has not spread to lymph nodes

### Stage II
Cancer is 5-7cm, localised and has potentially spread to lymph nodes close to the affected lung, the bronchus or pleura

### Stage III
Cancer is >7cm, localised and has potentially spread to a major structure within the chest

### Stage IV
Cancer is in both lungs or has metastasised to another part of the body or has caused a fluid collection around the lung or heart that contains cancer cells

Recommended treatments can vary depending on the stage of the lung cancer; however due to late manifestation of symptoms, a large proportion of lung cancer patients are diagnosed at Stage IV.[17]

* EGFR and KRAS gene mutations vary between ethnic populations. EGFR mutations are more prevalent among Asian populations (30-40%) as opposed to Caucasian populations (10-12%).[5,6] The reverse is true for KRAS mutations (5-15% for Asian populations, 25-50% for Caucasian populations).[18]

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