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:

- **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%). The reverse is true for KRAS mutations (5-15% for Asian populations, 25-50% for Caucasian populations).

Lung cancer is staged on a scale of I to IV, according to the severity of disease:

- **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.

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References


