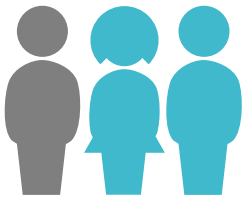
TREATMENTS FOR MET EXON 14 SKIPPING MUTATED

ADVANCED NON-SMALL-CELL LUNG CANCER

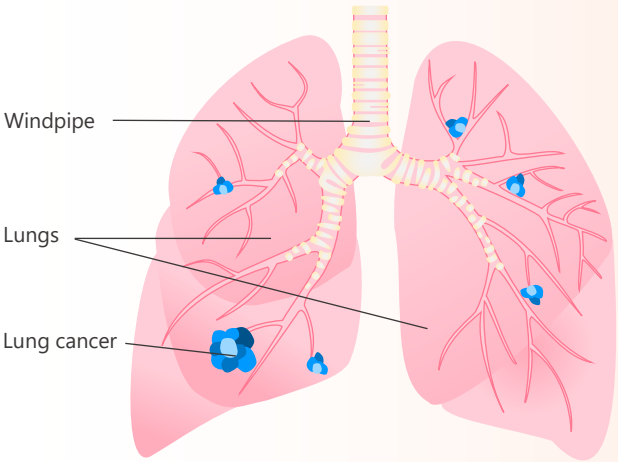
ACE agency for care effectiveness



Around **1,600 people** are diagnosed with lung cancer **every year**, making it one of the **most common** cancers in Singapore. It is also one of the **leading causes** of cancer-related **deaths** locally.[1]

Two in three patients[1] have cancer that has spread outside of the lungs to other parts of the body, which is known as **advanced lung cancer**.

There are different types of lung cancer depending on which cells are affected. Non-small-cell lung cancer or **NSCLC** is the most common type.



Doctors may send samples of the cancer for **testing** to determine which treatment will work best.

Up to 4% of patients with NSCLC have an abnormality (**mutation**) in the exon 14 region of the mesenchymal-epithelial transition (**MET**) gene which helps the cancer grow and spread. This is called **MET exon 14 skipping mutated NSCLC**.

This type of NSCLC is **uncommon** in Singapore. Only 50 patients are diagnosed with it every year.

How is NSCLC **treated**?

Advanced NSCLC treatment options include:

- Chemotherapy
- Radiotherapy
- Targeted therapy
- Immunotherapy +/- chemotherapy

Local doctors often recommend **targeted therapy** for patients with MET exon 14 skipping mutated advanced NSCLC.

Targeted therapy are medicines that can **find** and **stop the growth** of cancer cells with **specific** genetic mutations.

There are **2** targeted therapies approved for patients with **MET exon 14 skipping mutated advanced NSCLC**. These drugs are known as **MET inhibitors**:

Capmatinib tablets **Tepotinib tablets**

Published studies show that both MET inhibitors are **effective** treatment options.

- For patients with MET exon 14 skipping mutated advanced NSCLC, **capmatinib and tepotinib** are likely to be **as effective** in **extending** the length of time patients can live without their cancer getting worse.
- Patients treated with either capmatinib or tepotinib are likely to **maintain** their **quality of life**.

ACE reviewed all available clinical evidence and received clinical advice from doctors about each treatment. ACE also negotiated prices with the companies. [2]

- Capmatinib and tepotinib may have similar **effectiveness** and **safety** based on published studies and advice from doctors.
- Tepotinib was the best value for money (most cost-effective) at the price proposed by the company.

Cash or MediSave needed **every month** after subsidy and MediShield Life for a **middle-income patient** receiving **outpatient** treatment at **public hospitals***:

Tepotinib	**$100 to $200**	Subsidised ✓ MediShield Life: $1600 ✓
Capmatinib	**More than $9,500**	Subsidised ✗ MediShield Life ✗

Tepotinib was **recommended** for government funding[3] because it is **effective** and provides the best value for money for treating MET exon 14 skipping mutated advanced NSCLC.

Capmatinib was **not recommended** for funding because its benefits do not justify its cost at the price offered by the company.

Talk to your **doctor** to discuss which treatment is suitable for you. You can also speak to a **medical social worker** if you need further financial assistance, or you can reach out to **local patient support groups**[4] if you want to meet people with similar experiences.

* Expenses will differ according to the amount of medicine that each patient needs and does not include other costs for doctor consultations, medical tests etc. MediSave withdrawal is capped at $600 per month for these treatments. For Singaporeans who are eligible for subsidy, treatment costs will be subsidised by 40% to 75%. For subsidised drugs, expenses have been calculated using prices proposed by the companies including patient assistance programmes. For non-subsidised drugs, prices at public healthcare institutions at the time of subsidy review were used.

Sources:
1. Health Promotion Board National Registry of Diseases Office. Singapore Cancer Registry Annual Report 2019. 28 Jan 2022.
2. ACE Technology Guidance, Capmatinib and tepotinib for treating METex14sk mutated metastatic non-small cell lung cancer. 31 August 2022.
3. Ministry of Health, Singapore. Cancer Drug List.
4. Lung Cancer Education and Advocacy for Patients (LEAP), Singapore Cancer Society.

The Agency for Care Effectiveness (ACE) was established by the Ministry of Health (Singapore) to drive better decision-making in healthcare through health technology assessment (HTA), clinical guidance and education. It publishes guidances on diagnosing, treating, and preventing different medical conditions based on the latest research information available worldwide. This factsheet is not, and should not be regarded as, a substitute for professional or medical advice. Please seek the advice of a qualified healthcare professional about any medical condition. © Agency for Care Effectiveness, Ministry of Health, Republic of Singapore. All rights reserved. Reproduction of this publication in whole or part in any material form is prohibited without the prior written permission of the copyright holder. **Updated: 19 December 2022; first published: 31 August 2022.**
To find out more about ACE, scan the QR code or visit www.ace-hta.gov.sg. You can also follow us on social media at: