Subsidies now available for cell, tissue and gene therapy products

Singapore citizens can get up to 75 per cent of treatment cost subsidised, capped at $150,000

Zhaki Abdullah

Patients here who require certain costly cell, tissue and gene therapy products (CTGTPs) will now be eligible for subsidies, starting with one product for blood cancers.

This opens the door to a new range of treatments harnessing cells as living drugs to treat or reverse various health conditions.

The subsidies took effect on Aug 1, according to the Ministry of Health (MOH), which noted that the availability of such treatments varies at healthcare institutions, depending on the clinical conditions commonly managed by the institution and the treatments usually prescribed by the doctors.

Made from human or animal cells or tissues, or man-made genetic material, CTGTPs can be used to diagnose, treat or prevent a variety of conditions.

Several new cell therapy products have been approved by the United States Food and Drug Administration in recent years, with more in the works.

Chimeric antigen receptor (CAR) T-cell therapy, for example, allows cancer patients to recover more quickly without the need for aggressive chemotherapy, and achieve longer-lasting remissions.

Singapore sees about 100 patients each year who need cell and gene therapy treatments, which are usually offered to those who have not responded well to conventional treatments for conditions such as aggressive leukaemia and lymphoma. They include those undergoing clinical trials, where the cost of treatment is paid for.

Singapore citizens are now eligible to get up to 75 per cent of the cost of their treatment subsidised, capped at $150,000, while permanent residents can get up to 22.5 per cent in subsidies, capped at $45,000.

Subsidy levels are determined through household means-testing using monthly per capita household income.

MOH said subsidies will be provided for CTGTPs that are assessed to be "clinically and cost effective, for specific indications, to eligible subsidised patients".

Currently, the only treatment on the list is tisagenlecleucel, otherwise known by the brand name Kymriah.

It is used to treat relapsed or refractory B-cell acute lymphoblastic leukaemia, as well as relapsed or refractory diffuse large B-cell lymphoma.



The Ministry of Health said subsidies will be provided for cell, tissue and gene therapy products that are assessed to be "clinically and cost effective, for specific indications, to eligible subsidised patients". PHOTO: LIANHE ZAOBAO

A single Kymriah treatment – a type of CAR T-cell therapy where certain blood cells are extracted from a patient, manipulated to target cancer cells and then re-infused into the patient – is reported to cost around US$475,000 (S$620,000) if unsubsidised.

"Given the high costs of CTGTPs, we seek to balance between patient affordability and access to such treatments on the list while ensuring financing is sustainable, so that we continue to support Singaporeans for other important healthcare needs," MOH said in response to queries from The Straits Times.

"Hence, only CTGTPs that have been assessed to be clinically and cost effective will be included in the list. This also enables us to negotiate for competitive pricing from industry, which benefits patients," said an MOH spokesman.

He said more CTGTPs will be added to the list over time based on factors such as clinical need, cost and clinical effectiveness, and budget impact.

Setting a cap on subsidies ensures the long-term sustainability of the scheme as manufacturers may set prices higher without it, said Associate Professor Wee Hwee Lin from the National University of Singapore's Saw Swee Hock School of Public Health.

"The cap will hopefully encourage the manufacturer to price the treatments more in line with what the health system and patients can afford," said the director of the Centre for Health Intervention and Policy Evaluation Research.

Prof Wee suggested that national health insurance scheme MediShield Life could be expanded to cover CTGTPs.

"The intention of insurance is to provide protection against unexpected large healthcare cost through risk pooling.

"Hence, insurance is the most suited mechanism for financing expensive treatments used by a small number of patients, such as CTGTPs," she said.

Earlier this year, it was announced that the MediShield Life Council, an 11-member expert panel, was looking into extending MediShield Life coverage to CTGTPs.

Another way to improve access to such innovative treatments for patients here would be to attract more pharmaceutical companies to conduct clinical trials for such treatments in Singapore, said Dr Francesca Lim, head of the SingHealth Duke-NUS Cell Therapy Centre.

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Contact tracing to be done physically

FROM A1

until they are no longer infectious.

Unlike Covid-19, which is spread mainly through droplets produced when an infected person coughs or sneezes, Mr Ong said contact tracing for mpox will be done physically and does not need any digital solution, such as TraceTogether.

However, to prevent the spread of mpox clade I, Mr Ong said the existing measures and protocols for other infectious diseases remain relevant.

Citing the example of preschools and schools, he said the protocols for hand, foot and mouth disease such as maintaining good hygiene practices, conducting visual screening for symptoms, and outbreak management measures like isolation, contact tracing, decontamination of premises, and temporary closure, continue to be pertinent.

He said MOH will also be working with the Ministry of Manpower and the National Environment Agency to conduct wastewater testing at migrant worker dormitories and the Onboard Centre, where temperature and visual screenings have also been put in place for newly arrived work permit holders.

In the event any clade I cases are detected, there are protocols in place for isolation, transport of suspected cases to hospital for testing and assessment, and containment measures to support workers in their recovery and prevent any further spread within dormitories.

The disease, formerly known as monkeypox, can spread through close contact. Though it is usually mild, it can be fatal in rare cases. It causes flu-like symptoms and pus-filled lesions on the body.

According to the World Health Organisation (WHO), there have been 102,977 confirmed cases of mpox due to both clades I and II, including 219 deaths reported by 121 countries since the beginning of mpox monitoring in 2022, until July 31, 2024. Singapore has detected 14 clade II cases and no clade I cases in 2024.

When asked if healthcare workers are being protected against clade II mpox virus, director-general of health Kenneth Mak said vaccinating doctors and nurses tending to mpox cases was already in effect. However, there are no statistics on how many of them have received the vaccine.

On Aug 14, WHO declared mpox a global public health emergency for the second time in two years.

As a precautionary measure against the import of mpox, Singapore started temperature and visual screening at both air and sea checkpoints from Aug 23.

MOH had said that while there are no direct flights between Singapore and any country with an mpox outbreak, temperature and visual screening at Changi and Seletar airports were in place for inbound travellers and flight crew from places that may be exposed to the risk of mpox outbreaks.

Similar screening measures have also been implemented at sea checkpoints for crew and passengers arriving on ships from mpox-affected areas.

Health advisories have also been put in place so that travellers will take personal precautions to avoid being infected.

They are strongly advised to follow the advisory, especially if they are travelling to and from affected countries. Those found to have fever, rash and/or symptoms compatible with mpox will be referred for medical assessment.

Despite the new and potentially more deadly clade Ib strain of the mpox virus rapidly spreading in the Democratic Republic of Congo and its neighbouring countries, infectious disease specialists say there is no need for panic buying, especially of masks, as mpox is not the new Covid-19, and the authorities know how to control its spread.

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Health Minister Ong Ye Kung showing his smallpox vaccination at a press conference on Sept 4 with director-general of health Kenneth Mak (far left) and communicable diseases policy and preparedness division consultant Marc Ho. ST PHOTO: JASON QUAH

How Singapore is gearing up to fight mpox

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Q *Why is the vaccine against mpox not being given to everyone?*
A Jynneos is a live, non-replicating vaccine approved for use in Singapore against smallpox and mpox.

It is being given free to healthcare workers at highest risk of exposure to the virus, such as those at the National Centre for Infectious Diseases (NCID) who would be in close contact with mpox patients, said Professor Kenneth Mak, director-general of health at the Ministry of Health (MOH).

Another group that will be given the jabs free are the close contacts of confirmed cases. This is to ensure that the people who need them most will be given protection.

Most Singaporeans born in or before 1980 were already vaccinated against smallpox in childhood. As smallpox and mpox come from the same family of viruses, the vaccine provides some cross-protection.

Based on this vaccination approach, the existing supply in Singapore is projected to be sufficient, Prof Mak said. "To better strengthen our preparedness and resilience, MOH is looking at procuring more doses when available and (will) adjust our vaccination strategy as needed."

Q *Can Singapore use lessons from the Covid-19 pandemic to curb a possible mpox outbreak here?*
A Health Minister Ong Ye Kung on Sept 4 cautioned that Singapore must "never fall into the trap of fighting the last war" and assume strategies used to fight Covid-19 can be used to handle mpox clade I, as every virus has its own characteristics.

However, existing measures against infectious diseases are relevant to prevent the spread of mpox clade I, he said.

These include maintaining good hygiene practices, conducting visual screening for symptoms, and outbreak management measures like isolation, contact tracing, decontamination of premises and temporary closure.

Temperature and visual screening are in place at the airports and sea checkpoints for inbound travellers and crew arriving from places where they may have been exposed to mpox clade I outbreaks.

Suspected cases of mpox will be transferred to hospitals and isolated, pending test results. Those who test positive for clade I will continue to be isolated in healthcare facilities until they are no longer infectious.

Unlike for Covid-19, contact tracing for mpox will be done physically and not using TraceTogether.

In addition, wastewater testing at migrant worker dormitories and the Onboard Centre will be carried out to prevent any spread within their living quarters.

Q *How would a doctor tell if the rash I have is a symptom of mpox?*
A Dr Shawn Vasoo, cinical director of NCID, said it can be challenging sometimes differentiating mpox from other forms of rash if there are few lesions.

"As part of healthcare worker education, NCID has held webinars (in September) with primary care physicians to share the clinical evaluation and management of mpox patients, and further outreach is being planned. A joint NCID-MOH guidance on mpox with visual aids has been issued to healthcare professionals for mpox in 2022, with an update in 2023. A refreshed guidance for 2024 is also under way," he said.

Dr Vasoo said mpox rash typically develops in five stages, from flat, red spots to hard, raised bumps, then blisters filled with clear fluid to blisters filled with pus, before crusting over and becoming scabs that gradually fall off.

The rash, he said, is different from chickenpox, which happens in multiple stages of development, and measles, which is usually flat or slightly raised, red spots. "Persons with mpox are also more likely to have swollen lymph nodes, which is typically not as prominent with chickenpox or measles," he added.

Professor Paul Tambyah, president of the International Society for Infectious Diseases, said: "GPs (general practitioners) have all been briefed and should be able to identify suspect cases and refer them as needed. The rashes can also be in the throat, groin and genital areas, so those also need to be looked at as well."

Zhaki Abdullah and Judith Tan