

Coronavirus Singapore

# One in 10 recovered patients carries symptoms 6 months after infection

The most common are shortness of breath and lingering cough: Study

Clara Chong

One in 10 recovered Covid-19 patients had persistent symptoms six months after the initial infection, a study led by the National Centre for Infectious Diseases (NCID) has found.

In this condition known as “long Covid”, the patients continued to experience symptoms, most commonly a lingering cough and shortness of breath, long after recovering from Covid-19. Other symptoms included persistent fatigue, dizziness and insomnia, but these were not frequently observed.

More importantly, the study also found elevated inflammatory markers regardless of whether the person had a serious or mild case of the disease. These proteins in the blood have been associated with conditions affecting the circulatory system and are a risk factor for cardiovascular disease.

Long Covid is a serious concern that, if widespread, will likely put a strain on the society and economy for years to come, said experts The Sunday Times spoke to previously on the matter.

It adds to the hidden toll of the pandemic, with the long period of less-than-optimal health signalling the critical need for people to avoid infection in the first place.

The study led by NCID involved three other public hospitals. Patients typically joined the study during their first week of illness and were monitored for six months.

A total of 288 patients were recruited, and 183 of them returned for outpatient follow-ups.

People over 65 years old, of non-Chinese ethnicity, and who had severe illness were more likely to have persistent symptoms. The reason for the association with non-Chinese ethnicity is unclear.

The study began in mid-January last year soon after the first case was detected in Singapore, with

## The long tail of Covid-19

### WHAT IS THE STUDY ABOUT?

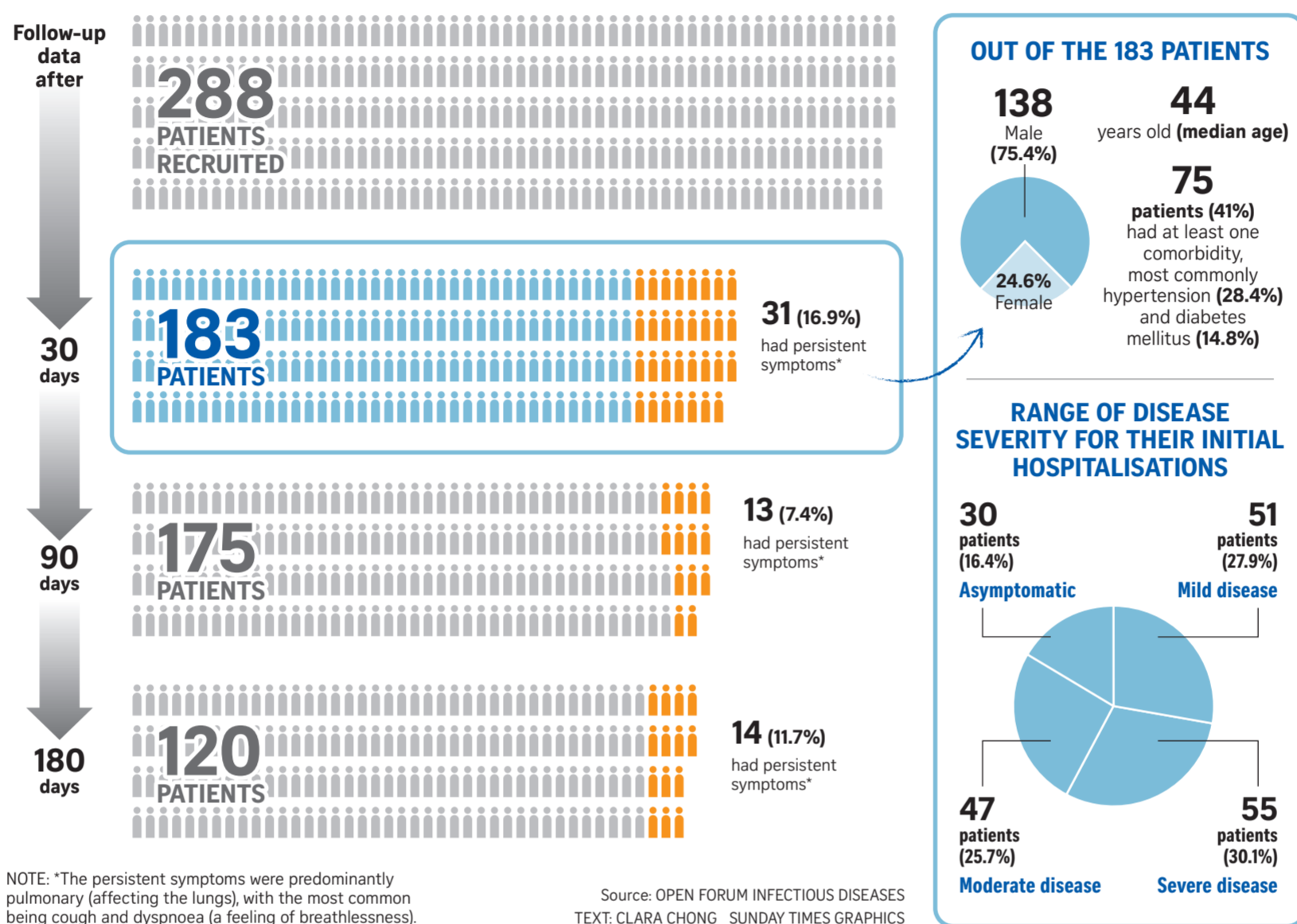
- Patients with Covid-19 were monitored for six months after recovery from their acute infection.
- 288 were recruited, and 183 returned for outpatient follow-ups.
- The multi-centre study led by NCID involved four public hospitals.

### WHAT THE STUDY FOUND

- Approximately 10 per cent of the 183 recovered patients had persistent symptoms six months after their first infection.
- Those over 65 years, of non-Chinese ethnicity, and who had severe acute

infection were more likely to have persistent symptoms.

- But regardless of how severe their illness was, all recovered patients had long-lasting changes in their cells signalling increased inflammation in the body.



the aim of studying the long-term impact of Covid-19, up to two years post-infection, and also to understand how any protective immunity from infection evolves over time.

Dr Barnaby Young, a consultant at NCID who was involved in the study, said: “We understand from cases who passed on... that although the lungs are the major organ affected, the virus actually

caused wider damage.” This included damage to the heart as well as the inner lining of small blood vessels.

In some individuals, the Sars-CoV-2 virus, which causes

Covid-19, damages blood vessels, and in particular small vessels that are present in every part of the body, leading to blockage of the blood supply and bleeding. Dr Young noted that much is still

unknown about long Covid. The symptoms can be wide-ranging and non-specific, and of varying duration, though the mechanisms that cause it are unclear.

International bodies like the World Health Organisation are also actively gathering more information.

The NCID is embarking on another study of whether there are long-term inflammatory consequences to Covid-19.

By taking blood from study subjects, the NCID aims to identify the mechanisms behind the inflammation and determine the groups at risk. Patients have been recruited steadily since April and preliminary results are expected in the next six months.

Dr Young also noted that though clear data is still lacking, it is likely that vaccination will help to prevent long Covid.

“This is because in those individuals who do get Covid-19 despite vaccination, the immune response induced by the vaccine is still able to significantly reduce the severity of the infection,” he said.

Recovered Covid-19 patient Sylvia Sim, 58, said that it took her about a year to regain her sense of smell completely. She tested positive for the virus on April 6 last year and was discharged on April 25.

“When I was first diagnosed, I was down with a fever and lost my sense of smell and taste. My sense of taste returned only some six months later and my sense of smell a year later. Till today, I am sometimes unable to smell,” she said.

Madam Sim’s condition would fit under long Covid, Dr Young said.

“Some aspects of long Covid relate more to a ‘post-viral syndrome’ with prolonged lethargy, dizziness and other symptoms. Loss of taste and smell may fit in as well,” he said.

Other complications such as blood clots may also be considered to be part of long Covid, he added.

“These different presentations are probably all related to each other but may be driven by different combinations of chronic inflammation, specific aspects of the immune response to infection or possibly residual viral fragments.”

Studies elsewhere are also showing the pandemic’s debilitating effects from long Covid. A study last month, tracking the health insurance records of nearly two million people in the United States who contracted the coronavirus last year, found that almost one-quarter of them sought medical treatment for new conditions, such as nerve and muscle pain, high cholesterol, high blood pressure and fatigue.

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## No new local case for first time since April 25; unlinked cases up last week

Dominic Low

The number of unlinked Covid-19 cases in the community has increased to nine in the past week from one case in the week before, the Ministry of Health (MOH) said yesterday.

There were no locally transmitted cases reported yesterday, for the first time since April 25.

The six new confirmed cases were imported, and were already on stay-home notice (SHN) or isolated on arrival in Singapore.

Three were detected on arrival in Singapore and the other three tested positive during SHN or isolation.

The six new cases take Singapore’s total to 62,684.

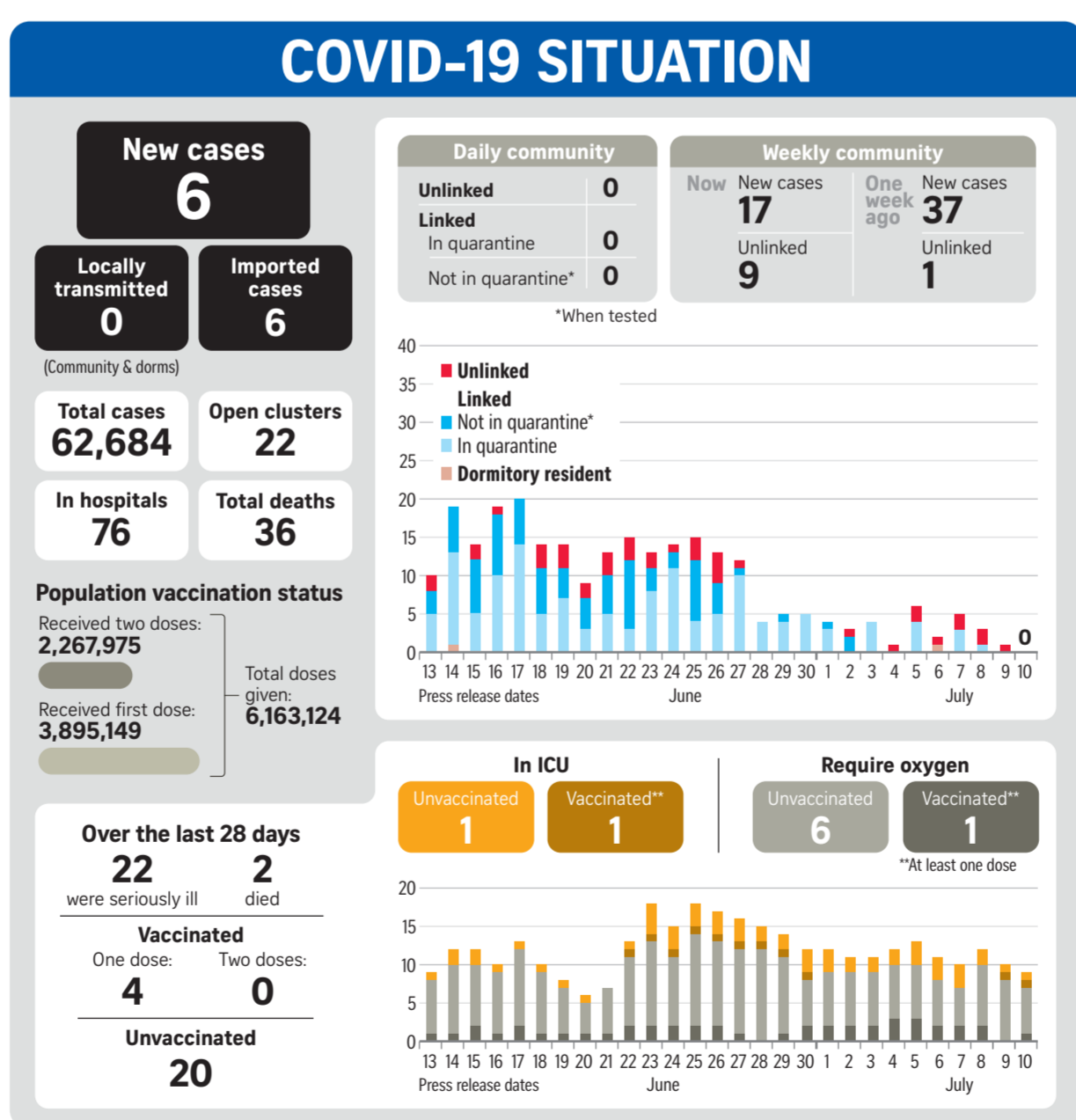
The number of new cases in the community has decreased to 17 cases in the past week from 37 in the week before.

There are currently 22 active Covid-19 clusters, with cases ranging from three to 94.

At present, 76 patients remain in hospital. Most are well and under observation.

There are two in critical condition in the intensive care unit, while seven require oxygen supplementation.

Over the past 28 days, 22 local cases required oxygen supplementation or were admitted to the intensive care unit, while two others died. Among them, 20 were unvac-



inated while four were partially vaccinated.

So far, about 6.16 million doses of Covid-19 vaccines have been administered, with about 2.26 million people having received their second dose of the vaccine, MOH said in an update on the national

vaccination programme.

In a separate statement, MOH said it had concluded Covid-19 testing for 6,364 staff and cleaners working in HarbourFront Centre and VivoCity on July 2.

Testing had also concluded for 39 cleaning staff at Veloci-

ty@Novena Square on June 30.

All tested negative for infection. Singapore has had 36 deaths from Covid-19 complications, while 15 who tested positive have died of other causes.

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## Entry approvals reduced for travellers from Indonesia

Entry approvals for travellers from Indonesia to Singapore who are not citizens or permanent residents here will be reduced with immediate effect, said the Ministry of Health (MOH) yesterday.

This is part of tightened border control measures by Singapore, given the increase in Covid-19 cases in Indonesia. Entry approvals may be considered where additional safe management measures are taken, said MOH.

Also, with effect from 11.59pm on Monday, travellers with travel history to Indonesia within the last 21 days will not be allowed to transit through Singapore.

Such travellers entering the Republic will also have to present a valid negative polymerase chain reaction (PCR) test result taken within 48 hours before departure for Singapore.

Those who arrive in Singapore without a valid negative PCR test result may be denied entry.

Permanent residents and long-term pass holders who fail to comply with the new requirements may have their permit or pass cancelled.

Currently, all travellers entering Singapore with recent travel history to Indonesia within the last 21 days prior to departure for Singapore need to present a valid negative test taken within 72 hours before departure.

MOH said all travellers will continue to be subjected to 14-day stay-home notice (SHN) at dedicated SHN facilities, PCR tests on arrival and on the 14th day after arrival, and antigen rapid tests on arrival and days after arrival.

Indonesia reported 35,094 Covid-19 cases and 826 deaths yesterday, taking the total so far to more than 2.49 million cases and 65,457 deaths.

Indonesian authorities extended Covid-19 restrictions to 15 new locations across the archipelago on Friday, in a bid to avert the crisis seen on the island of Java, where hospitals are being pushed to the limit, oxygen supplies are low, and four of five designated Covid-19 burial grounds in the capital Jakarta are close to full.

Dominic Low