

Coronavirus pandemic

Coronavirus: New facility at Changi to house 1,700 more recovering cases



Patients stay in tents with partitioned rooms (above), each with eight to 10 beds, fans, power sockets, storage cabinets and Wi-Fi access. Apart from mobile diesel generators that power the new facility, solar panels will provide 20 per cent of projected energy consumption. ST PHOTOS: ONG WEE JIN

🕒 PUBLISHED JUN 7, 2020, 5:00 AM SGT

First batch of patients transferred over at Changi Exhibition Centre



Kok Yufeng (mailto:yufengk@sph.com.sg)

Changi Exhibition Centre has treated more than 6,000 Covid-19 patients since it was turned into a community care facility about a month ago, with more patients on the way.

A newly built community recovery facility erected at its outdoor area will house a further 1,700 recovering cases. The 40,000 sq m complex was built in two weeks and received its first batch of 100 patients on Thursday.

This makes Changi Exhibition Centre the first integrated community care and recovery facility. The aim is to allow for a smoother patient experience and a more efficient administration.

The facilities share Mandarin Oriental Singapore as the managing agent, Raffles Medical Group as the healthcare provider, as well as food, pest control and security vendors.

Temasek Club general manager Teo Cheng Leong, who is on the security committee, said putting the facilities together is "a strength".

"(The patients) know our rules, what our facilities are like, so when they are transferred to the recovery facility, they are already prepared."

The authorities pledged in April to add 23,000 more beds for patients. This included increasing the 2,000 bed spaces for recovering patients, which are mostly in military camps, to more than 10,000 by the end of this month.

Covid-19: Don't miss the latest on the outbreak and its impact

Stay in the know with e-mail alerts

Enter your e-mail

Sign up

By signing up, you agree to our [Privacy Policy](#) and [Terms and Conditions](#).

The new recovery facility currently takes in Changi Exhibition Centre patients who remain well after Day 14 of illness and do not require medical care. They will be taken to the recovery area by bus to ensure they remain isolated, and about 500 have moved over.

Like the care facility, the recovery amenity has three zones. Green is for work and rest areas, yellow is a transition area for staff, food and supplies, and red is for patients and restricted to authorised people wearing personal protective equipment.

Patients stay in tents with partitioned rooms, each with eight to 10 beds, Wi-Fi, power sockets, fans and storage cabinets.

Singapore Discovery Centre executive director Joseph Tan, who chairs the facility's infrastructure committee, said: "The breeziness of this area is quite unique and in the design of the tents and the infrastructure, we tried to allow for the optimisation of such natural ventilation. Depending on the situation, we have no problem running this place for a year."

First integrated Covid-19 facility for care and recovery

The complex for Covid-19 patients at Changi Exhibition Centre has been expanded to include a new recovery area, which has about 1,700 beds. Built in just two weeks, the new facility, which is located outdoors and leverages technology to improve patient experience and protect workers, received its first Covid-19 patients on Thursday.



FOOD DISTRIBUTION

There are 16 food delivery robots at the new recovery facility that help to carry meals to designated pick-up points. Each robot can carry up to 190 meals per trip and, to increase efficiency, the food carts are fixed onto the robot. They get a full wipedown after the meals are served, mats are sprayed with chlorine solution to clean the wheels, and a UV disinfection robot is deployed in common areas to add another layer of sanitisation.



UV CABINET

Developed by DSO National Laboratories, this cabinet-like machine uses UV energy to disinfect surgical masks, face shields and personal belongings. Each machine can disinfect 30 items at one time and it takes about 15 minutes. "We have tested it up to 30 times. The mask will not be destroyed by this process," said Dr Loke Weng Keong, director of the chemical, toxins, radiological and nuclear defence programme at DSO.



SECURITY

A wall of screens showing CCTV footage from common areas is monitored closely by security officers from Ranger Investigation & Security Services at the joint operations centre. Security systems with geo-fencing and crowd monitoring capabilities alert the officers to any unauthorised entry or overcrowding.



TELECONSULTATION

More than 80 per cent of daily consultations with patients at Changi Exhibition Centre are done via teleconsultation. There are two teleconsultation stations in the recovery facility, compared with six in the care facility. But the two stations also serve as a five-bed sick bay, a resuscitation and stabilisation bay for patients before they are taken to hospital, and a satellite dispensary. There are at least two nurses at each station and volunteers off site are on standby to do on-the-spot translations.



SOLAR

About 1,130 solar panels cover 20 per cent of the recovery facility's projected energy consumption. There are three ground arrays with some of the highest efficiency panels in the market, and a roof array mounted atop two temporary tents. This first-of-its-kind solar tent was the effort of several public agencies and the private sector. There are 17 off-grid solar lamps to light the toilet and laundry areas, solar fences and solar sound barriers will be piloted, and battery energy storage systems are also in the works.



Source: CHANGI EXHIBITION CENTRE FACILITY COMMITTEE ST PHOTOS: ONG WEE JIN SUNDAY TIMES GRAPHICS

NATURAL VENTILATION

The breeziness of this area is quite unique and in the design of the tents and the infrastructure, we tried to allow for the optimisation of such natural ventilation. Depending on the situation, we have no problem running this place for a year.

MR JOSEPH TAN, who chairs the facility's infrastructure committee.



Related Story >

Coronavirus microsite: Get latest updates, videos and graphics

Related Story >

Coronavirus explainers: What you should know to protect yourself