



Mr Chin Tian Loke, who has been using the Smart Health TeleRehab, says he has been doing his exercises almost daily instead of waiting for three weeks for a session at Ng Teng Fong Hospital. ST PHOTO: MARK CHEONG

Remote rehab removes hassle of visiting therapist

Pilot scheme lets patient do prescribed drills at home, with data transmitted to therapist

Audrey Tan

With a sensor strapped to his arm, Mr Chin Tian Loke, 72, mimics a video playing on an iPad and lifts his arm above his head. At this, the voice from the iPad congratulates

him: "Sensational!"

Mr Chin, a retired odd-job worker, is not playing a game. He is undergoing physiotherapy to strengthen his limbs after a fall that broke his tailbone last November.

The Touch Home Care patient is among the first to try out a novel

healthcare system – Smart Health TeleRehab – announced yesterday by healthcare technology agency Integrated Health Information Systems (IHIS).

The system aims to make physiotherapy as convenient as possible by allowing patients to exercise at any time of the day, in the comfort of their homes.

This could encourage more of them to attend rehabilitative therapy and reduce their chances of get-

ting readmitted to hospital.

All that is required are an iPad and two sets of sensors – which will be loaned to the patient by the healthcare institution – and an open mind.

Believed to be the first of its kind, Smart Health TeleRehab will enable Mr Chin's physiotherapist to keep tabs on his exercise regime remotely. Each exercise session is recorded and saved to a digital cloud, which his therapist views

within two working days.

Depending on how Mr Chin performs the exercises, his therapist can either increase the level or difficulty or video call to guide him. If required, she will pay him a home visit within the week.

Smart Health TeleRehab is currently being used by 11 patients at two healthcare providers – Touch Home Care and NTUC Health.

But 12 more players – including Changi General Hospital, Khoo Teck Puat Hospital and SPD (formerly known as the Society for the Physically Disabled) – will come on board by the end of this year.

An estimated 1,000 patients are expected to benefit from the pilot programme by the end of next year.

IHIS' latest initiative follows its April roll-out of a video call system for medical consultations to six public healthcare institutions that enables patients to consult experts from their homes.

"With the increasing incidence of chronic diseases, shortage of healthcare professionals, and the availability of more intelligent technologies, healthcare is a prime sector that can benefit from Smart Nation initiatives," said Professor Atreyi Kankanhalli, from the department of information systems at the National University of Singapore's School of Computing.

Mr Chin, who has been using TeleRehab for about two weeks, said he has been doing his exercises almost daily instead of waiting three weeks for a session at Ng Teng Fong Hospital.

Mr Chee Hong Tat, Senior Minister of State for Health, yesterday visited Mr Chin at his home.

He said: "Patients will benefit from greater convenience, cost savings and better outcomes. Therapists and therapy service providers will also benefit from the productivity improvements."

The cost of such sessions can vary, depending on factors such as the subsidies a patient qualifies for.

But as a gauge, at Ang Mo Kio Thye Hua Kwan Hospital, which will run the programme from next month, a patient can expect to pay between \$3 and \$50 for a Smart Health TeleRehab session.

In comparison, a patient has to pay more than \$80 for a session at the centre (excluding transportation costs), or more than \$160 for a therapist to visit him at home.

audreyt@sph.com.sg

New system set to ease therapist manpower crunch

Comprising an iPad Air and two sensors that can be strapped to a person's neck and arm, the new Smart Health TeleRehab system looks like a newfangled gaming device but it could revolutionise rehabilitative therapy in Singapore.

"We want to improve productivity in the healthcare sector, because we have an ageing population and a shrinking local workforce. We need to make good use of our healthcare manpower," Mr Chee Hong Tat, Senior Minister of State for Health, said yesterday.

Last year, there were 2,579 occupational and physiotherapists in Singapore. Figures show that 53,000 patients had to undergo physiotherapy in 2014 – a number expected to grow with time.

An initial study found that the telerehab system could help therapists reap productivity gains of more than 30 per cent. A telerehab session takes about 52 minutes, compared to the 80-minute session usually held at a patient's home.

Touch Home Care physiotherapist Vivian Lim, 31, estimates that the use of such a system could help her see up to seven patients a day, compared to five currently.

Dr Adrian Yeow, senior lecturer at the Singapore University of Social Sciences' School of Business, said the programme could address the relative shortage of trained therapists.

"It also enables patients who would previously find it inconvenient to attend such sessions to benefit from the treatment. In the long run, it could also help reduce medical costs as such treatments may be useful in preventing future injuries."

Audrey Tan