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Cutting-edge technology helps COVID-19 patients

COVID-19 patients in south western Sydney are having their symptoms monitored 24 hours a day with an armband in a first-of-its kind study.

The Biofourmis Everion Armband is a light-weight wearable smart device using cloud technology and artificial intelligence.

It monitors a patient's vital signs, such as temperature, heart rate, respiratory rate and oxygen saturation remotely, giving clinicians the ability to check on patients' conditions at all hours – just as if they were in a hospital bed.

South Western Sydney Local Health District Director Strategy and Partnerships and Principal Investigator Professor Josephine Chow said the ability to closely monitor patients while they were at home had a range of benefits.

“With a disease as infectious as COVID-19, we want people to stay in isolation as much as possible, but we also want to make sure they are receiving the care they need,” Professor Chow said.

“Most people with COVID-19 don't need to be in hospital, they are able to recover at home.

“While we are in regular contact with them over the phone, this device allows real-time access to their vital signs 24 hours a day and alerts clinicians as soon as the patient's condition becomes concerning - allowing us to provide further care or transport to hospital.”

Professor Chow said 18 people completed the pilot study and more were wearing the armbands, providing an extra layer of care to patients already receiving regular phone calls and home visits when necessary from the District's COVID-19 team through Primary and Community Health.

“We wanted to assess the feasibility of this device for remote monitoring. It had to be accurate and easy to use. So far the results are very promising. The armband is allowing the safe early detection of clinical deterioration which is improving patient outcomes,” Prof Chow said.

“This study is enhancing our already established virtual care and rapid response with the potential to change the way we care for people in the future and it is part of broader strategies for our Hospital in the Home approach.”