

Biofourmis, Brigham and Women's Hospital collaborate to co-develop Biovitals

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Digital Health company to leverage its physiology-based predictive analytics engine, Biovitals, to provide acutecare at home



Singapore – Biofourmis, a fast-growing digital health startup that augments personalized care using digital therapeutics, has entered into a collaboration with Brigham and Women's Hospital to co-develop improvements to their proprietary analytics engine, Biovitals for Brigham's Home Hospital Program.

In Brigham's Home Hospital program, patients are cared for in their home instead of the hospital, aiming to provide the right care to the right patient at the right time in the right place. Doctors, nurses, and other clinical care team members visit the patient's home. Their work is supplemented with state-of-the-art monitoring technology and most of the care a patient would expect in the hospital. Brigham has cared for over 200 patients at home for about two years. short period of time. Preliminary pilot data in a randomized clinical trial have found similar quality, safety, and experience outcomes as those in the hospital at about half the cost.

To further improve patient care, this collaboration will harness and clinically utilize the vast quantity of biometric data that the home hospital team collects. They plan to use the Biovitals analytics engine and further innovate around new predictive algorithms. Unlike traditional threshold-based physiology monitoring, Biovitals uses advanced machine learning to learn a patient's physiology and then dynamically build a personalized physiology signature that can detect subtle physiological changes that may predict a patient's health. The program would also use Biofourmis' RhythmAnalytics platform to detect

dozens of different cardiac arrhythmias.

“Current remote monitoring systems are based on univariate physiology analysis and have shown high false alarm burden and no early intervention, especially while monitoring patients in an ambulatory setting. This collaboration would enable us to enhance and co-develop new predictive models for monitoring acutely ill patients’ suffering from multiple conditions like heart failure, pneumonia, COPD, and atrial fibrillation at-home, enabling clinicians to intervene early and improve the level of safety of patients,” said Kuldeep Singh Rajput, Founder & CEO of Biofourmis.

“Our home hospital team is hoping to improve care for our patients by creating a suite of highly clinically-useful algorithms that can predict deterioration and improvement for those who are acutely ill,” said David Levine MD, MPH, MA, researcher and lead for Brigham and Women’s Home Hospital program.