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CONFERENCE ABSTRACT

An Innovative Collaborative Platform to Augment the Care Delivery Model in Primary Practice to enable Improved Clinical Outcomes Among Patients with Chronic Disease.

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Chronic diseases such as hypertension, diabetes mellitus and hypercholesterolaemia have been the dominant area of practice in primary care in Singapore. The Ministry of Health in Singapore has developed several clinical practice guidelines to aid the medical practitioners in providing the best possible evidence-based care to this group of patients. However, the majority of this is based on episodic model of care with vital parameters being taken only during the particular visit to the doctor. This care model may be the most convenient in the past and is not reflective of the patient 's current condition in their daily life.

There needs to be a shift from the current episodic care model to a more longitudinal type of care to better assess the patient's daily well-being outside of the doctor's consult room. With the advent of faster, cheaper and more accurate medical devices and data processing algorithms, our company aims to revise and improve the current model of care of patients with chronic disease or those at risk of chronic disease from an episodic to a near longitudinal care model.

Through intensive scoping of the needs of the primary care physicians, specialists and patients, we have developed a collaborative mobile platform for continuous monitoring of medical parameters which can be shared with their respective primary care physicians outside of the clinic consult. We will be presenting the collaborative results with one of our partner clinics in Singapore. To the best of our knowledge, this is the first time such a collaborative platform has been deployed in Singapore.

Hypertension was the first chronic disease selected for this study, for ease of monitoring and faster enrolment. Suitable patients were identified by the physician and were subsequently contacted for the enrolment. Patients were informed of the purpose of the programme and assured that data shared would be secured and stored based on the HIPAA guidelines. Patients were asked to monitor their blood pressure with a Bluetooth-enabled monitoring device which syncs with our cloud platform that would be shared on the physician mobile application. Alerts would be sent based on pre-determined thresholds.

During the monitoring period of 30 patients, there were a couple of situations where the physicians were able to detect and act upon abnormal blood pressure readings which would have otherwise gone undetected until the next visit and prevent potentially adverse outcomes. Through the availability of our specialist medical board, our primary care physician was able to perform an ad hoc consultation for one patient to improve better blood pressure control.

We have expanded to monitoring of diabetic patients and believe that through this collaborative and longitudinal care model, patient care will be improved, leading to better clinical outcomes.