



ASX ANNOUNCEMENT

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CardieX's Ground-Breaking SphygmoCor® Technology Once Again Validated in Chinese Clinical Study. Report is Timely as CardieX Embarks on a Major Licensing, OEM, and Product Strategy Focus in China in 2019.

Highlights

- CardieX subsidiary AtCor Medical's market-leading SphygmoCor® technology used for central blood pressure monitoring in a recent clinical study published by the Clinical and Experimental Hypertension Journal.
- Clinical study led by the prestigious Shanghai Jiatong School of Medicine in China. The study was a collaboration between affiliate hospital, the Department of Hypertension, and the Department of Geriatrics at the Rujin Hospital North, together with the Department of Biomedical Sciences at Macquarie University,
- Rujin Hospital is home to the renowned Shanghai Institute of Hypertension, one of the leading authorities on hypertension guidelines development in China.
- The study was designed to assess prediction of cardiovascular events in a hypertension cohort, utilising CardieX's SphygmoCor to perform non-invasive measurements of central aortic blood pressure (BP), brachial BP, wave reflection, augmentation index, pressure amplification, and pulse wave velocity.
- The results revealed that central systolic blood pressure (cSBP) and central pulse pressure (cPP) showed higher hazard ratios for cardiovascular events compared to their peripheral pressure counterparts at age of 60 and older.
- The investigators concluded that central blood pressure monitoring improved prediction of cardiovascular events compared to standard peripheral pressure measurements.
- This provides further evidence that cardiovascular risk is better characterized by central blood pressure than traditional brachial pressure, which facilitates better individualization of care for these patients.
- Central blood pressure waveform analysis with SphygmoCor facilitates improved patient management by facilitating management of central pressures while also treating patients to their goal outcomes based on current blood pressure guidelines.
- AtCor Medical's SphygmoCor technology is approved by the CFDA and commercially available to hospitals and healthcare facilities across China.



- **The study firmly establishes that measurement of central BP is clinically superior in treatment of patients with hypertension.**
- **Study is timely as CardieX embarks on a major licensing, OEM, and product strategy focus in China in 2019 spearheaded by ZiHan Lin - VP of Corporate Development for CardieX & Lawrence Chan, Director – Product Development & Technology.**

CardieX Limited (ASX: CDX) (CardieX, the Company) is pleased to announce that a recent clinical study by the Clinical and Experimental Hypertension Journal and led by the Shanghai Jiatong School of Medicine in China utilised CardieX subsidiary AtCor Medical's ("AtCor") SphygmoCor technology to assess prediction of cardiovascular events in a hypertension cohort. The study found that central blood pressure monitoring improved prediction of cardiovascular events compared to standard peripheral pressure.

“The clinical study provides further evidence that cardiovascular risk is better characterized by central blood pressure as measured by SphygmoCor technology than traditional brachial pressure, thereby facilitating better individualization of care for these patients”.

AtCor's SphygmoCor technology is clinically used for central arterial pressure waveform analysis to better inform blood pressure management. The system helps physicians individualise care for patients with hypertension, renal disease, COPD, diabetes and heart failure among other diseases and conditions. Central blood pressure waveform analysis with SphygmoCor facilitates improved patient management by facilitating management of central pressures while also treating patients to goal based on current blood pressure guidelines.

AtCor's SphygmoCor technology is “Chinese FDA” approved by the (CFDA) and commercially available to hospitals and healthcare facilities across China.

The recent clinical study was published by the Clinical and Experimental Hypertension Journal. The study was led by Shanghai Jiaotong School of Medicine (SOM) in China and was a collaboration between the Department of Hypertension and the Department of Geriatrics at the Ruijin Hospital North, an affiliate hospital of SOM, together with Australia's Department of Biomedical Sciences at Macquarie University.

The study was designed to assess prediction of cardiovascular events in a hypertensive cohort, utilizing CardieX's SphygmoCor technology to perform noninvasive measurements of central aortic BP, brachial BP, wave reflection, augmentation index, pressure amplification, and pulse wave velocity, in 675 hypertensive patients for a mean follow-up period of 25 months. Traditional brachial pressure and carotid intima-media thickness (CMIT) were also measured in this cohort.

The study shows that central systolic blood pressure (cSBP) and central pulse pressure (cPP), showed higher hazard ratios for cardiovascular events compared to their peripheral pressure counterparts at age of 60 and older. Additionally, each standard deviation increase in carotid IMT and in central augmented pressure (cAP) entailed a **1.4x higher risk** of increased total events in elderly patients (age >60 years).



The results of the study highlights the market-need for CardieX's SphygmoCor system and demonstrates the superiority of central BP over brachial BP in predicting the risk of a future cardiovascular event.

The investigators concluded that central blood pressure monitoring improved prediction of cardiovascular compared to peripheral pressure during follow-up of approximately two years in patients 60 and older. The study also demonstrates the cardiovascular risk is better characterized by central blood pressure than traditional brachial pressure, which facilitates individualization of care for patients. The results of the study support the findings of other major studies of substantially longer duration, 10 years in a study of a Taiwanese population and 45 months in a meta-analysis, where increased central BP was an independent predictor of CV mortality and all events, respectively.

The information provided through SphygmoCor assessments is particularly beneficial in heart failure drug development where the challenges of bringing novel therapy to market are well documented.

AtCor's SphygmoCor technology has been utilised by research and clinicals for the non-invasive assessment of central blood pressure for over two decades.

AtCor's SphygmoCor technology is currently used in all 20 hospitals on the U.S. News Best Hospitals 2017-2018 Honor Roll and has been leveraged by pharmaceutical companies worldwide to investigate and validate the effects of novel drugs on heart-vascular interactions.

CardieX CEO, Craig Cooper commented, "The study firmly establishes that measurement of central BP is clinically superior in treatment of patients with hypertension. The study also highlights the growing need for our SphygmoCor system in the Chinese market as we move forward to build on our existing distribution, sales, and licensing network in that country throughout 2019."

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About CardieX

CardieX Limited is a global health technology company that develops digital and device based solutions for large-scale population health disorders. The Company's XCEL device is the world leader in measuring "central blood pressure" which is considered essential for the management of hypertension and related cardiovascular disorders. CardieX also has a joint venture partnership with Blumio, Inc in Silicon Valley for the development of a radar-based blood pressure sensor incorporating CardieX technology. In November 2018 CardieX entered into an agreement with telehealth services provider, inHealth Medical Services, Inc, allowing CardieX to acquire up to 50.5% of inHealth by way of a convertible note.