

Press release

Malmö, October 12, 2017

# New data showing paradoxical rise of inpatient CAD diagnostic testing presented at German Heart Days supports the implementation of Acarix CADScor<sup>®</sup>System

## Non-invasive acoustic device offers fast rule-out already at outpatient stage

Acarix AB (publ) ("Acarix") will present its CADScor®System for non-invasive, non-radiation acoustic rule-out of Coronary Artery Disease (CAD) at the German Heart Days in Berlin, October 12-14. The device has so far been launched in the Nordics and Germany and created a great deal of interest. Furthermore, a new analysis of historic German data to be presented at the conference will point to clear opportunities for improving efficiencies by introducing innovations such as the CADScor®System in the current testing regime for CAD.

The study, to be presented by Steffen Wahler is entitled *"Trends in Inpatient Care of Coronary Artery Disease in Germany 2005-2015*. The analysis showed that the number of acutely treated infarcts declined slightly since 2013 (for details, see below). Furthermore, there was a significant shift from STEMI (ST-Elevation Myocardial Infarction) to the less serious NSTEMI (non-ST segment elevation myocardial infarction) events over the observation period and the number of cases with unstable angina declined markedly. However, at the same time, the number of inpatient interventions and coronary diagnoses performed showed a steady increase over time.

"The findings that the acute events decline while the number of inpatient interventions are increasing are puzzling", says **Dr. Steffen Wahler, author of the study**. "A possible explanation would be that the acute events decline due to more extensive use of expensive invasive patient interventions beforehand. On the other hand, would the observed decline in acute events not be expected to be associated with less need for invasive diagnostics? In any case, to implement a more efficient method to exclude CAD already in the outpatient setting would pave the way for more efficient heart disease care."

In recently-reported clinical trials on a standard patient population, the CADScor®System has evidenced its accuracy (97%) to rule out CAD at an early stage before patients progress to more intensive, time consuming, invasive, and expensive testing procedures. The system has the potential to save time and money and is currently being offered to healthcare professionals in Germany, Sweden, and Denmark.

Acarix CEO Søren Rysholt Christiansen commented: "At German Heart Days we look forward to meeting our expanding network of cardiologist contacts and to presenting our solution for CAD detection to them. This will be against the background of Steffen Wahler's new study. The discrepancy he points out between the decline of many forms of cardiovascular disease and the rise in inpatient testing opens in our view considerable opportunities for savings both in patient anxiety levels and treatment by using the Acarix CADScor®System."

The abstract can be read here (in German): http://www.abstractserver.de/dgk2017/ht/abstracts/P249.htm

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#### Notes to editors:

### Acarix, CADScor®System and cardiac sound measurement

Acarix was established in 2009, and since 2010 investors SEED Capital (DK) and Sunstone Life Science Ventures (DK) have supported it towards market introduction. Acarix was listed on Nasdaq First North Premier in 2016 and has attracted a highly-experienced management team having held senior positions in international medical device companies - CEO Søren Rysholt Christiansen with Cook Medical, GN ReSound, and ELOS Medtech.

Acarix's CADScor<sup>®</sup>System is based on engineering excellence in sound recording and signal processing. It has long been known that both cardiac contraction movement and turbulent flow can generate sound. Contraction related sounds are in lower frequency, whereas turbulent sounds in the streaming blood caused by partial obstruction (stenosis) in the coronary arteries are of higher frequencies. The detection of these murmurs is delicate, since the energy of the murmurs is very weak. Detecting and recording the coronary murmurs requires not only an advanced sensor but also means for proper attachment to the skin above the heart to optimize the recorded signal and to avoid external noise.

The Acarix CADScor®System has been designed to be an all-in-one system in the sense that the heart signal will be recorded, processed, and displayed as a patient specific score, the CAD-score, on the device screen. The CADScor®System contains the necessary electronics to instruct professionals during use and to guide through the recording periods. The system also contains a docking station for daily qualification of the sensor. Further the system integrates with an adhesive patch for locking the sensor to a fixed position above the heart during the recording.

See more at <u>www.acarix.com</u>. Press photos: <u>http://www.acarix.com/about-us/press-downloads/press-photos/</u>

<u>Trends in inpatient care for coronary heart disease 2005 – 2015</u> - summary of results. Abstract here: <u>http://www.abstractserver.de/dgk2017/ht/abstracts/P249.htm</u>

The number of inpatient patients with acute myocardial infarction as main diagnosis increased slightly from 206.104 to 218.874 (+ 6.2%) with peak in 2012. The share of NSTEMI increased significantly from 39.7% in 2005 to 65,3% in 2015, a total of 142,937 cases (+ 74.4% over 2005), retirement age (2015 each) 72.1 years. Significant declines were observed for transmural front wall (- 29.1%, age 66.4 years) and hind-wall infarction (-30.7%, age 65.5 years).

The cases with unstable angina pectoris as main diagnosis also fell significantly: from 165,780 cases to 103,639 cases (-37.5%) while the figures for stable angina pectoris remained virtually unchanged: 117,063 in 2015 (+ 1.4% in 2005) at both 68.4 years.

220,595 diagnostic heart catheters without further measures and 690,745 in total were carried out in 2008. These figures rose to 442,438 (+ 100.5%, average 68.9 years) and 822,911 (+ 19.1%), respectively. The total number of percutaneous transluminal vessel interventions in heart and coronary vessels (PCI) increased from 488.542 interventions to 640.659 in 2015 (+ 31.1%, age 69.0

years). The proportion of interventions in several coronary arteries increased, from 11.1% to 13.6%. According to quality reports, in addition, 23,542 CT angio examinations, 85,360 SPECT and 57,477 cardiac MRI were performed in 2015, although these figures may not be complete.