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FLAGSHIP CLINICAL TRIAL AT ST. VINCENT'S HOSPITALS DELIVERS SUPERIOR RESULTS

Highlights:

- **Echo IQ's EchoSolv™ AI technology identified 72% more patients with severe aortic stenosis than human diagnosis alone**
- **Trial revealed that women were 66% less likely to have been accurately diagnosed than men using human-only assessment: EchoSolvTM resolves this discrimination**
- **Study was funded by Edwards Lifesciences (NYSE:EW)**
- **Clinical trials now completed at St. Vincent's Hospitals and Beth Israel Deaconess Medical Center (USA) with more than 40,000 echocardiograms reviewed**
- **Trial results support rapid commercial deployment of EchoSolv™ in multiple sites and markets**

Sydney: AI and Medical Technology company Echo IQ ("the Company" or "Echo IQ") (ASX:EIQ) is pleased to announce positive final results from the clinical trial conducted at St. Vincent's Hospital Sydney and Melbourne. This study was designed to test the effectiveness of AI-backed software solution EchoSolv™ in identifying patients with, and at risk of dying from, aortic stenosis (AS). Aortic stenosis is one of the most common forms of heart valve disease in older people and is associated with high risks to life if not identified and treated quickly. The study was fully funded by Edwards Lifesciences (NYSE:EW, Mkt. Cap. US$51Bn) and was conducted in conjunction with the National Echo Database of Australia (NEDA).

The final results from this study show a number of important findings:

1. EchoSolv™ identified 72% more patients with severe aortic stenosis than those identified using human diagnosis alone.
2. Women were 66% less likely to have been accurately diagnosed than men, but EchoSolv™ was effective in identifying disease without this gender bias.
3. EchoSolv™ clearly distinguishes between patients with varying severity of disease as well as those at high and low risk of dying.
4. Even where patients had aortic stenosis with significant risk of death, the study revealed there to be a lack of intervention and proactive management when this hadn't been recorded on patient records.

Professor Michael Feneley AM, Director of the Heart Lung Program and Cardiology at St Vincent's Hospital said: *"This study clearly demonstrates not only the effectiveness of novel technologies such as EchoSolv™ in enhancing human diagnosis, but also its potential to reduce bias in decision making. With the general ageing of the population leading to the increasing prevalence of aortic*

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stenosis, it is encouraging to see how artificial intelligence could be used to improve the identification of disease and all the increased opportunities to treat patients in a timely manner this provides."

Professor David Playford, Echo IQ's Chief Medical Advisor, said: *"The EchoSolv™ clinical decision-support platform is the first in the world to show such a clear improvement in detecting severe AS compared with current clinical practice. We expect the automatic highlighting of patients with significant AS risk using EchoSolv™ to assist doctors in decision-making for aortic valve intervention and follow-up in a highly consistent, systematic and efficient manner. Our goal is to support improved diagnosis free of unconscious bias and irrespective of age, gender, background or socioeconomic status. These findings are a significant step towards Echo IQ's goal of assisting doctors in finding the right patients, every time, for the right intervention for heart valve disease."*

Increased identification of patients with aortic stenosis

This study applied the AI-backed EchoSolv™ decision-support software to 9,189 patient echocardiograms from two reporting sites at St. Vincent's hospitals in Sydney and Melbourne.

Of the 9,189 studies reviewed, 218 individuals had been diagnosed by humans, as per routine clinical care, with guideline-defined severe aortic stenosis. When EchoSolv™ independently reviewed the same population it identified 376 individuals with this level of disease, representing an increase of 72% in disease detection.

Reduction in gender bias in disease identification with EchoSolv™

The study also revealed a difference in the way women had been identified and earmarked for treatment. Whilst the study showed that similar proportions of men and women had guideline-defined severe aortic stenosis, it also revealed that women were 66% less likely to have been accurately diagnosed than men using human-only assessment. In contrast, EchoSolv™ did not discriminate in its identification of patients by gender.

The study also found that even when identified as having severe aortic stenosis, women were 50% less likely to receive intervention than men which re-enforces the need for unbiased identification of disease.

Identification of additional cohorts of patients at risk

EchoSolv™ identified patients both within and outside current diagnostic guidelines.

In addition to the 376 patients accurately identified as having guideline-defined severe aortic stenosis, EchoSolv™ identified an additional 174 patients with aortic stenosis who fell outside diagnostic guidelines but showed significant risk of dying from the disease.

Beyond this, the software also revealed 94% of the study population to be at low risk. Being able to categorise patients in this way is important as it has the potential to support healthcare facilities to better allocate resources and prioritise patients for additional review and/or treatment consideration.

The importance of accurate identification of severity of disease

The study showed that where patients had been identified with severe aortic stenosis, there was a clear link to intervention (typically surgical or transcatheter valve replacement). However, even where patients had significant risk of death, failure to reflect this in reported conclusions by human-only diagnosis led to a lack of intervention and proactive management.

The study also showed that the majority of these patients were not recorded as having other medical conditions that would typically be seen as contra-indications to intervention. This highlights the

importance of reducing the gap in disease identification and the opportunity for EchoSolv™ to play a positive role in clinical practice.

Commentary

Executive Chair, Andrew Grover said: *"We are pleased share the results of this important trial which clearly demonstrate how valuable EchoSolv™ could be when integrated into clinical practice. With rates of under and mis-diagnosis of structural heart disease recognised as being higher than they should be, our solution is ready for deployment to reduce this diagnosis gap almost immediately.*

In the United States, diagnostic errors affect an estimated 12 million adults each year[1]. Furthermore, we know that 1 in 3 medical malpractice cases resulting in death or permanent disability are due to inaccurate or delayed diagnosis[2]. EchoSolv™ has clearly demonstrated how valuable it can be in clinical practice and we are pleased to see a number of facilities in Australia and the US evaluating our technology.

This study complements an earlier study completed at Harvard Medical School's Beth Israel Deaconess Medical Center in Boston which also found EchoSolv™ to be effective in identifying patients with guideline-defined aortic stenosis as well as those exhibiting risk-of-death indicators. The successful completion of these two trials, conducted in two different but key markets with diverse patient profiles, shows that EchoSolv™ has a powerful role to play in the cardiovascular sector.

We see a broad range of groups who stand to benefit from the capabilities of EchoSolv™. First and foremost are the patients who may benefit from more timely and efficient diagnosis of a potentially life-threatening but treatable condition. Hospitals and clinicians using EchoSolv™ have potential for improved health outcomes for their patients as well as increased procedure volumes and reduced risks associated with misdiagnosis. Device manufacturers, such as replacement valve manufacturers, could potentially see an increase in suitable recipients for their proven therapies.

We look forward to sharing more news in the weeks ahead as Echo IQ starts to capitalise on these exciting results."

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Authorised for release by the Board of Directors of Echo IQ Limited.

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ABOUT ECHO IQ
Echo IQ uses AI-driven technology and proprietary software to improve decision making in Cardiology.
The company is based in Sydney, Australia.

[1] Newman-Toker DE, Schaffer AC, Yu-Moe CW, Nassery N, Saber Tehrani AS, Clemens GD, Wang Z, Zhu Y, Fanai M, Siegal D. Serious misdiagnosis-related harms in malpractice claims: The "Big Three" - vascular events, infections, and cancers. Diagnosis (Berl). 2019 Aug 27;6(3):227-240. doi: 10.1515/dx-2019-0019. Erratum in: Diagnosis (Berl). 2020 May 16;8(1):127-128. PMID: 31535832.

[2] Singh H, Meyer AN, Thomas EJ. The frequency of diagnostic errors in outpatient care: estimations from three large observational studies involving US adult populations. BMJ Qual Saf. 2014 Sep;23(9):727-31. doi: 10.1136/bmjqs-2013-002627. Epub 2014 Apr 17. PMID: 24742777; PMCID: PMC4145460.