

UltraSight Showcases New Data at ACC 2025 Highlighting the Accuracy and Accessibility of AI-Guided Cardiac Imaging

Research shows how UltraSight's Real-Time Guidance software empowers wider access to diagnostic-quality cardiac imaging—regardless of operator experience

BOSTON, MA, UNITED STATES, April 1, 2025 /EINPresswire.com/ --

[UltraSight™](#), a digital health leader using machine learning to transform cardiac imaging, announced the

presentation at the American College of Cardiology (ACC) Annual Meeting 2025 of three abstracts highlighting promising study findings using its AI-driven ultrasound platform. Conducted in collaboration with Mayo Clinic, the studies substantiate that UltraSight's Real-Time Guidance software enables novice users—with no prior ultrasound experience—to acquire diagnostic-quality cardiac ultrasound images.

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By guiding users in real time, our AI platform can make accurate cardiac imaging accessible to more clinicians and patients—helping to close the gap in early detection and improve outcomes at scale.”

*Andrew Goldsmith, MD, MBA,
Medical Director at UltraSight*

The results demonstrate how machine learning-powered cardiac imaging can help broaden access to care by enabling frontline healthcare providers to perform reliable assessments. By exploring applications of UltraSight's AI-guided imaging software such as in maternal health, structural heart disease screening, and asymptomatic heart failure detection, the studies underscore UltraSight's potential to transform cardiac care across a wide range of clinical settings.

The abstracts presented include:

1. Screening for Structural Heart Disease: Integration of AI-ECG and Novice-acquired Focused Ultrasound Scan



UltraSight™ Logo

In this prospective study of 248 patients, novice users—without clinical imaging experience—performed rapid, AI-guided ultrasound following AI-enabled electrocardiogram. The combination of AI-ECG with UltraSight’s AI-guided focused cardiac ultrasound (FoCUS) increased the positive predictive value (PPV) from 48% to 96% for identifying reduced left ventricular ejection fraction (LVEF) or significant aortic valve disease. Scans were completed in under five minutes on average. While AI-ECG alone showed limited PPV for population-level screening, pairing it with AI-guided FoCUS significantly enhanced diagnostic accuracy, suggesting a scalable, cost-effective screening method for structural heart disease¹.

2. Feasibility and Accuracy of AI-Guided Cardiovascular Focused Ultrasound by Novice Users to Detect Stage B Heart Failure

In this study, researchers found that novice ultrasound users—guided by UltraSight’s Real-Time Guidance software—were able to successfully perform cardiac ultrasounds for the early detection of Stage B heart failure in a cohort of 498 adults. The AI-assisted scans achieved 95% interpretability, enabling accurate assessment of asymptomatic left ventricular dilation and reduced LVEF. Notably, the AI platform demonstrated a 95% negative predictive value for identifying patients with LVEF below 50%, highlighting its potential to power scalable, community-based screening programs that support earlier detection and intervention in heart failure².

3. Feasibility of artificial intelligence-enhanced focused cardiac ultrasound (FoCUS) to assess left ventricular systolic function in an obstetric population

In a study involving 100 pregnant individuals, novice operators in obstetric clinics—guided by UltraSight’s Real-Time Guidance software-- achieved a 98% success rate in obtaining diagnostic-quality images. The AI-guided assessments of LVEF closely matched those of expert cardiologists, with a mean difference of just 3%³.

"Our research demonstrates that machine learning-guided ultrasound technology enables even novice users to accurately identify structural heart disease and early-stage heart failure," said Jared G. Bird, MD, cardiologist at Mayo Clinic. "Innovation in this space has the potential to significantly enhance early cardiovascular screening and make diagnostic imaging more accessible and cost-effective nationwide."

"These studies presented at ACC 2025 reinforce our mission to transform cardiac care through advanced machine learning," said Andrew Goldsmith, MD, MBA, Medical Director at UltraSight. "By guiding users in real time, our AI platform can make accurate cardiac imaging accessible to more clinicians and patients—helping to close the gap in early detection and improve outcomes at scale."

UltraSight’s work in revolutionizing cardiac imaging was previously featured on Mayo Clinic’s Tomorrow’s Cure podcast. The episode—titled How Next-Gen Ultrasound Improves Cardiac

Care—highlights how AI-powered ultrasound is democratizing access to high-quality cardiac diagnostics. Listen to the [episode here](#).

The research abstracts, highlighting UltraSight's real-time guidance software technology, will be published in an upcoming online issue of the Journal of the American College of Cardiology. They may be accessed via the ACC conference webpage once available. In the meantime, to review the complete findings, please [see here](#).

Mayo Clinic has a financial interest in the technology referenced in this release. Mayo Clinic will use any revenue it receives to support its not-for-profit mission in patient care, education and research.

References:

1. Borgeson J et al. Screening for structural heart disease: integration of an AI-ECG and novice-acquired focused ultrasound scan. Presented at: American College of Cardiology Annual Scientific Session (ACC) 2025; March 2025.
2. Kane CJ et al. Feasibility and accuracy of AI-guided cardiovascular focused ultrasound by scanners without clinical or imaging experience to detect Stage B heart failure. Presented at: American College of Cardiology Annual Scientific Session (ACC) 2025; March 2025.
3. Paraschiv C et al. Feasibility and accuracy of artificial intelligence-enhanced focused cardiac ultrasound (FoCUS) to assess left ventricular systolic function in an obstetric population. Presented at: American College of Cardiology Annual Scientific Session (ACC) 2025; March 2025.

About UltraSight™:

UltraSight™ is revolutionizing cardiac care by enhancing the efficiency and productivity of cardiac ultrasound. Our deep learning based Real-Time Guidance software empowers any healthcare provider to acquire diagnostic-quality echocardiography images, regardless of experience level, optimizing workflows and expanding access to cardiac ultrasound. By democratizing access to cardiac ultrasound, UltraSight™ aims to improve patient access, operational efficiency, and overall patient care. UltraSight™'s software has FDA 510(k) Clearance and is UKCA and CE Marked to assist medical professionals in performing cardiac ultrasound scans. For more news and information, visit our website or follow UltraSight™ on LinkedIn and X (Twitter).

Media Contact:

Madelyn De Los Santos
Putnam Insights
madelyn@putnaminsights.com

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