Tempus and Medtronic Announce ALERT Trial Results Showing AI-Driven EHR Notifications Improve Treatment for Significant Valvular Heart Disease

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ALERT is the largest known multicenter, cluster-randomized trial to date evaluating an automated EHR-based notification system designed to address the undertreatment of significant valvular heart disease and accelerate time to treatment.

CHICAGO--(BUSINESS WIRE)--Apr. 1, 2026-- Tempus AI, Inc. (NASDAQ: TEM), a technology company leading the adoption of AI to advance precision medicine, today announced results from the ALERT (**A**ddressing undertreatment and hea**L**th **E**quity in aortic stenosis and mitral regurgitation using an integrated eh**R** pla**T**form) trial, which were recently presented at the American College of Cardiology's 75th Annual Scientific Session & Expo. The study, conducted in collaboration with Medtronic, found that automated electronic clinician notifications (ECNs) integrated into the electronic health record (EHR) significantly improve the timely evaluation and treatment of patients with significant aortic stenosis (AS) and mitral regurgitation (MR).

Valvular heart disease is a leading cause of morbidity and mortality, yet it remains frequently undertreated. For patients with untreated symptomatic severe AS, mortality approaches 50% within just two years. Similarly, untreated severe MR carries a median survival of only five years. The ALERT trial was designed to determine if automated, AI-driven alerts could bridge this critical gap in care delivery. By leveraging the Tempus Next platform, which applies natural language processing to accurately extract findings from echocardiogram reports, the trial enabled real-time detection of significant disease and automatically delivered notifications with site-specific guideline-based care notifications directly to providers.

The ALERT trial included 765 clinicians and 2,016 echocardiograms across five U.S. health systems and 35 hospitals. The study met its primary endpoint, demonstrating that automated ECN alerts were superior to usual care in a win ratio analysis (win ratio 1.27; P = .007), meaning patients in the alert group were 27% more likely to be evaluated by the multidisciplinary heart team or receive a valve intervention than those in the usual care group. By delivering actionable data directly to providers, the system facilitated a 40% relative increase in life-saving valve procedures (13.4% vs. 9.6%) and a 27% increase in multidisciplinary heart team evaluations (22.7% vs. 17.9%) within just 90 days. These alerts effectively reduced clinical inertia, prompting earlier specialist referrals and ensuring patients received interventions within established benchmarks for timely care.

Beyond clinical efficiency, a central objective of the ALERT trial was to confront the persistent disparities that leave women, older adults, racial and ethnic minorities, and rural residents at higher risk of being undertreated. These findings suggest that EHR-integrated clinical decision support can serve as a powerful, scalable 'safety net,' standardizing care delivery to help ensure high-risk findings receive timely action regardless of a patient's demographics or care setting.

"Medtronic is committed to advancing solutions that close critical gaps in cardiovascular care, and the ALERT trial demonstrates the meaningful impact that intelligent, automated clinical decision support can have for patients with serious valvular heart disease," said Kendra J. Grubb, MD, MHA, MSc, vice president and chief medical officer for Medtronic Structural Heart. "By delivering timely, actionable insights directly to clinicians, this approach helps ensure more patients receive the evaluations and life-saving interventions they urgently need. We are proud to collaborate on research that not only improves pathways to treatment but also supports more equitable care across diverse patient populations."

"The ALERT trial shows that data-driven clinical decision support positively impacts patients suffering from valvular heart disease," said Brandon Fornwalt, MD, PhD, senior vice president of cardiology at Tempus. "Being a part of this work further underscores our commitment at Tempus to building technology that helps every patient have the chance to receive the best possible care."

While the ALERT trial was conducted in collaboration with Medtronic, the automated clinician notifications were designed to be device-agnostic to promote standardized care delivery, without requiring providers to use specific Medtronic devices for recommended evaluations or interventions.

About Tempus

Tempus is a technology company advancing precision medicine through the practical application of artificial intelligence in healthcare. With one of the world's largest libraries of multimodal data, and an operating system to make that data accessible and useful, Tempus provides AI-enabled precision medicine solutions to physicians to deliver personalized patient care and in parallel facilitates discovery, development and delivery of optimal therapeutics. The goal is for each patient to benefit from the treatment of others who came before by providing physicians with tools that learn as the company gathers more data. For more information, visit tempus.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, about Tempus and Tempus' industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this press release are forward-looking statements, including, but not limited to, statements regarding expected outcomes and statements regarding the quality of Tempus' research and publications; the contributions of Tempus' research and findings to the larger scientific community; and the use of Tempus' products and services to advance clinical care for patients. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "going to," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," or "would" or the negative of these words or other similar terms or expressions. Tempus cautions you that the foregoing may not include all of the forward-looking statements made in this press release.

You should not rely on forward-looking statements as predictions of future events. Tempus has based the forward-looking statements contained in this press release primarily on its current expectations and projections about future events and trends that it believes may affect Tempus' business, financial condition, results of operations and prospects. These forward-looking statements are subject to risks and uncertainties related to: the intended use of Tempus' products and services; Tempus' financial performance; the ability to attract and retain customers and partners; managing Tempus' growth and future expenses; competition and new market entrants; compliance with new laws, regulations and executive actions, including any evolving regulations in the artificial intelligence space; the ability to maintain, protect and enhance Tempus' intellectual property; the ability to attract and retain qualified team members and key personnel; the ability to repay or refinance outstanding debt, or to access additional financing; future acquisitions, divestitures or investments; the potential adverse impact of climate change, natural disasters, health epidemics, macroeconomic

conditions, and war or other armed conflict, as well as risks, uncertainties, and other factors described in the section titled “Risk Factors” in Tempus’ Annual Report on Form 10-K for the year ended December 31, 2025, filed with the Securities and Exchange Commission (“SEC”) on February 24, 2026, as well as in other filings Tempus may make with the SEC in the future. In addition, any forward-looking statements contained in this press release are based on assumptions that Tempus believes to be reasonable as of this date. Tempus undertakes no obligation to update any forward-looking statements to reflect events or circumstances after the date of this press release or to reflect new information or the occurrence of unanticipated events, except as required by law.

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