

Artificial Intelligence Tools for Preconception Cardiomyopathy Screening Among Women of Reproductive Age

This cross-sectional study evaluated the diagnostic performance of an artificial intelligence-enabled 12-lead electrocardiogram (AI-ECG) and an AI-stethoscope to detect left ventricular systolic dysfunction (LVSD) in 200 women aged 18 to 49.

Cohort I Diagnostic cohort, women already scheduled for echocardiograms (n=100) 5% of women had LVSD	AI-ECG  Negative predictive value: 96.8% Positive predictive value: 33.3%	AI-Stethoscope  Negative predictive value: 100% Positive predictive value: 22.7%
Cohort II Screening cohort, women seen in routine primary care (n=100)	AI-ECG Only 1% of low-risk patients screened positive. A follow-up echocardiogram showed a normal left ventricular ejection fraction.	The prevalence of positive screens requiring echocardiography was low

Source: Kinaszczuk A, Morales-Lara AC, Garzon-Siatoya WT, et al. Artificial intelligence tools for preconception cardiomyopathy screening among women of reproductive age. *Ann Fam Med*. 2025;23:10.1370/afm.230627