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IMPACT REPORT - PILOT

MARCH 2026

Ultromics EchoGo Heart Failure Impact Analysis Report

Report Purpose

This Impact Report provides a structured framework to help healthcare systems evaluate the potential clinical and financial impact of the EchoGo Heart Failure algorithm by Ultromics Ltd.

The economic analysis reflects a national-level view of healthcare utilization and cost impact rather than institution-specific figures. This provides a generalizable assessment of the value of the algorithm across diverse healthcare settings. Given the significant variability in hospital-level cost structures, this approach offers a reliable foundation for decision-making that stakeholders can supplement with analyses that are specific to their organizations and requirements.

American Heart Association® AI Assessment Lab | Powered by Dandelion

The American Heart Association AI Assessment Lab, Powered by Dandelion Health provides independent, scientifically rigorous evaluations of cardiovascular and stroke AI algorithms. Using the American Heart Association's gold-standard methodology, the Assessment Lab helps AI developers and healthcare stakeholders evaluate solutions for clinical performance, safety, and impact—ensuring innovation serves patients and healthcare systems with integrity.

Executive Summary

ECHOGO HEART FAILURE ALGORITHM

FDA Status	FDA Risk Benchmark	Reimbursement
Approved (2022)	Moderate Risk	Hospital Outpatient: **$316.08** (CPT 0932T)

✓ Intended Use

EchoGo Heart Failure is indicated for use as a diagnostic aid to analyze a single apical 4-chamber transthoracic echocardiographic (TTE) video clip and provide a prediction of whether the patient has heart failure with preserved ejection fraction (HFpEF).

IMPACT ANALYSIS RESULTS

EchoGo Heart Failure was found to support earlier detection and management. This has potential to **reduce avoidable hospitalizations and readmissions, lowering associated penalties** and **creating additional reimbursement opportunities** through algorithm use. The incremental revenue generated from earlier detection and management is projected to outweigh potential reductions in acute care utilization, resulting in a **positive return on investment.**

$1.9M | ***Additional revenue for health systems*** *over five years, assuming 70k TTEs annually*[1]

PROJECTED RESULTS FROM THE PAYER AND HEALTH SYSTEM PERSPECTIVES:

EchoGo Heart Failure vs. Standard of Care 5-Year Outcomes, per 10,000 Patients[2]

Outcome	Algorithm Impact	Perspective
Cost-Effectiveness	**Better outcomes at lower cost**	Payer perspective
Health System Cost Impact	**$1,812 saved per patient**	Health system perspective
Deaths Prevented	**477 lives saved**	Payer and health system perspective
Hospitalizations	**406 fewer admissions**	Payer and health system perspective
Readmissions	**501 fewer readmissions**	Payer and health system perspective
Emergency Department Visits	**564 fewer ED visits**	Payer and health system perspective

1. This budget impact analysis reflects a representative health system performing approximately 70,000 TTEs annually based on retrospective real world data from Dandelion Health. The analysis was conducted from a health system perspective, based on an estimate of the number of echos conducted per year in a health system and the subsequent associated difference in outcomes based on running the algorithm on all TTEs performed.
2. Clinical and economic impact results are based on the projected outcomes of the health economic cost-effectiveness model. This analysis assesses overall outcomes at the patient level instead of the TTE level. See Methodology on pages 14-20.

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GLOSSARY

TERM	DEFINITION
ARNI	Angiotensin Receptor-Neprilysin Inhibitor
Early Detection	Patients with HFpEF who received an incidental diagnosis within 90 days of their index echocardiogram based on electronic health record-based diagnosis criteria
ECG	Electrocardiogram
GDMT	Guideline Directed Medical Therapy
HF	Heart Failure
HFpEF	Heart Failure with Preserved Ejection Fraction
ICD-10	International Classification of Diseases, 10th Revision
ICER	Incremental Cost Effectiveness Ratio. Represents the additional cost required to gain one additional unit of health benefit, such as a QALY. In the United States, ICERs below $150,000 per QALY gained are generally considered cost-effective
LVEF	Left Ventricular Ejection Fraction
MACE	Major-Adverse Cardiac Event, including myocardial infarction, stroke, heart failure, unstable angina, and cardiovascular death
Missed Detection	Patients with HFpEF who are not diagnosed within 90 days of their index echocardiogram based on electronic health records but later detected by the Algorithm
MRA	Mineralocorticoid Receptor Antagonist
NMB	Net Monetary Benefit. Net costs averted by the Algorithm when QALYs are valued at $150,000. Positive NMB indicates the intervention provides value at the specified at the specific threshold
OWSA	One-Way Sensitivity Analysis. Tests the robustness of the economic model by systematically changing one input at a time to identify which assumptions have the greatest impact on conclusions
PSA	Probabilistic Sensitivity Analysis. Simultaneously varies all economic model parameters across their plausible ranges to determine the probability of cost-effectiveness in the real-world

GLOSSARY

TERM	DEFINITION
QALY	Quality-Adjusted Life Year. A standardized metric that accounts for both the quantity and quality of life. Values range from 0 (death) to 1 (perfect health), enabling comparison of outcomes across diseases and interventions
Sensitivity	Sensitivity measures how well an algorithm correctly identifies people who actually have the condition (true positive rate). Perfect sensitivity is 100%, meaning the test catches every single case with no false negatives
SGLT2i	Sodium-Glucose Cotransporter 2 Inhibitor
Specificity	Specificity measures how well an algorithm correctly identifies people who do not have the condition (true negative rate). Perfect specificity is 100%, meaning the test correctly identifies every person without the condition (no false positives)
TTE	Transthoracic Echocardiogram

IMPACT ANALYSIS - PILOT

Algorithm under assessment

EchoGo Heart Failure
by Ultromics

OVERVIEW

FDA Status [1]

Approved (2022)

FDA Risk Benchmark [1]

Moderate Risk

Reimbursement [2]

Hospital Outpatient: **$316.08** (CPT 0932T)

Intended Use

EchoGo Heart Failure is indicated for use as a diagnostic aid to analyze a single apical 4-chamber transthoracic echocardiographic (TTE) video clip and provide a prediction of whether the patient has heart failure with preserved ejection fraction (HFpEF).

TECHNICAL

Model Input

- Apical 4-chamber echocardiographic clip

Model Output

- HFpEF classification
- Report highlighting suspected disease findings in the scan

Place in Workflow

- Pre-encounter
- **Encounter** ✓
- Post-encounter
- Back office

Supported third-party software

- PACS (DICOM series)

Supported Third-Party Devices

- Vendor-neutral in any care setting
- No additional hardware required

Implementation Requirements [3]

- Cloud-based AI platform integrating with standard TTE systems from any vendor and integrates with PACS

Model Limitations

- Requires a clear apical 4-chamber echocardiogram clip from a non-color, 2D, non-stress TTE

1. FDA 510(k): K222463. The EchoGo Heart Failure algorithm is classified as Regulatory Class II (21 CFR 870.2200, Adjunctive Cardiovascular Status Indicator), with device risk determined by its impact on clinical decision-making and patient safety.
2. Ultromics Reimbursement Guide [PDF], 2025. Represents Average National Medicare Payment.
3. Ultromics EchoGo Integration [Accessed February 2026].

IMPACT ANALYSIS - PILOT

Results

Budget Impact Analysis

Earlier HFpEF detection has potential to improve patient outcomes while creating favorable financial impact for health systems. Detection enabled by the EchoGo Heart Failure algorithm has potential to support earlier diagnosis and management. This has potential to **reduce avoidable hospitalizations and readmissions, lowering associated penalties** and **creating additional reimbursement opportunities** through algorithm use. The incremental revenue generated from earlier diagnosis and management is projected to outweigh potential reductions in acute care utilization, resulting in a **positive return on investment.**

Results from Health System Perspective

Over a 5 year period, assuming 70k TTEs annually (See *Page 19* for economic model inputs).

4,173

more patients receive a timely diagnosis per year

$1.9M

Additional revenue for health systems over five years [1]

1,245

Fewer MACE-related 30-day readmissions over 5 years

1,401

Fewer MACE-related ED visits over 5 years

1,185

Deaths prevented over 5 years

ADOPTION COSTS

- **Implementation:** Contact the Developer
- **Cost per Positive HFpEF Report:** $250
- **Cost per Negative HFpEF Report:** $0

1. This analysis reflects a representative health system performing approximately 70,000 TTEs annually based on retrospective real world data from Dandelion Health. Among these studies, 66% of patients have no documented heart failure at the time of imaging. Within this population, approximately 18% are expected to have diastolic dysfunction. Outcomes and costs were modeled annually over a five year budget window with each year's TTE cohort followed for the portion of time remaining within the analysis period. Methodological details available on pages 14-20.

Clinical and Economic Impact Summary

EchoGo Heart Failure Improves Patient Outcomes by Reducing Acute Care Use

PROJECTED RESULTS FROM THE PAYER AND HEALTH SYSTEM PERSPECTIVES:
EchoGo Heart Failure vs. Standard of Care 5-Year Outcomes, per 10,000 Patients[1]

Outcome	Algorithm Impact	Perspective
Cost-Effectiveness	**Better outcomes, lower cost**	Payer perspective
Payer Cost Impact	**$1,809 saved per patient** *Algorithm prevents acute decompensation care costs*	
QALYs	**468 QALYs gained**	
Health System Cost Impact	**$1,812 saved per patient** *Algorithm prevents readmissions*	Health system perspective
Life Years Gained	**982 life-years gained**	Payer and health system perspective
Deaths Prevented	**477 lives saved**	
Hospitalizations	**406 fewer admissions** *Prevention from decompensation*	
Readmissions	**501 fewer readmissions**	
Emergency Department Visits	**564 fewer ED visits**	

1. Clinical and economic impact results are based on the projected outcomes of the health economic model. Further details on Methodology pages 14-20.

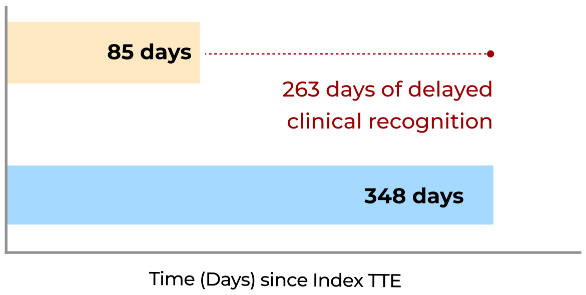
Clinical Outcomes

CLINICAL OUTCOMES

Early Detection of HFpEF Drives Earlier and Greater Uptake of GDMT

MEAN TIME TO DIAGNOSIS [1]

Had the Algorithm been implemented at time of the index TTE, patients in the Missed Detection cohort could potentially have been detected for HFpEF 263 days earlier

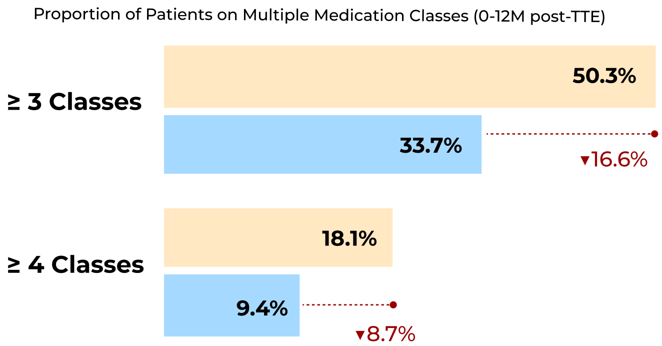


Key

- **Early Detection Cohort** (Patients with HFpEF who received an incidental diagnosis within 90 days of index TTE based on EHR diagnosis criteria)
- **Missed Detection Cohort** (Patients with HFpEF who were not diagnosed within 90 days of index TTE based on EHR data but later detected by the Algorithm)

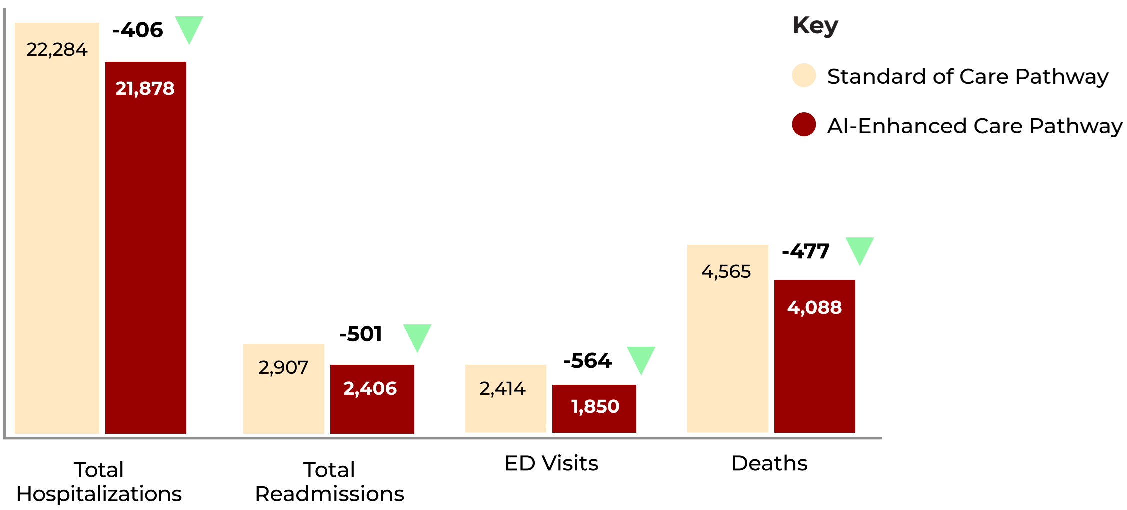
TIME TO GDMT [1,2]

Had the Algorithm been implemented at the time of index TTE, patients in the Missed Detection cohort could have initiated GDMT earlier



Difference driven by higher and earlier use of **MRA** (1.8x higher use and started 247 days earlier), **SGLT2i** (1.7x higher use and started 283 days earlier), **ARNI** (3.3x higher use and started 276 days earlier)

MODELED HEALTHCARE UTILIZATION PER 10,000 PATIENTS OVER 5 YEARS [3]



Key Takeaway: EchoGo Heart Failure was projected to lead to an improvement in patient outcomes including reduction in MACE-related ED visits, hospitalizations, and readmissions.

1. Results are from the retrospective cohort study conducted on the Dandelion Health platform. Methodological details available on pages 14-20.
2. GDMT: Guideline-Directed Medical Therapy; MRA: Mineralocorticoid Receptor Antagonist; SGLT2i: Sodium-Glucose Cotransporter 2 Inhibitor; ARNI: Angiotensin Receptor-Neprilysin Inhibitor.
3. Results are based on the health economic model projecting the two clinical pathways, EchoGo Heart Failure and Standard of Care. Methodological details available on pages 14-20.

Payer Financial Impact

EchoGo Cost-Effectiveness is Highest in Non-White Patients and Male Patients [1]

COST-EFFECTIVENESS WAS ASSESSED AT A WILLINGNESS-TO-PAY THRESHOLD OF $150,000 PER QALY

Subgroups	Net Monetary Benefit	Probability of Cost-Effectiveness
Base Case	$9,485	66.7%
Male	$10,819	64.4%
Female	$1,450	50.8%
< 75 Years Old	$6,336	59.3%
≥ 75 Years Old	$319	49.6%
White, Non-Hispanic	$6,319	61.0%
Non-White	$40,186	75.6%
LVEF Cut-Off > 50%	$9,396	67.1%
Stage A HFpEF Risk	$8,764	66.4%

Non-White patients had **substantially higher hospitalization** and readmission rates when diagnoses were missed.

Cost-effectiveness was evaluated based on a threshold of $150,000 per QALY. The % indicates the likelihood that the algorithm was assessed to be cost-effective at that threshold in 5,000 simulations for the specific subgroup of patients.

1. Results are based on the health economic model projecting the two clinical pathways, EchoGo Heart Failure and Standard of Care. Methodological details available on pages 14-20.

IMPACT ANALYSIS - PILOT

Methodology

Analysis Objective

Assess the incremental clinical and economic benefits of improved HFpEF detection, reflected in fewer missed or delayed diagnoses, using the EchoGo Heart Failure algorithm compared with Standard of Care.

Clinical Impact

1. How does the Algorithm's improved detection rate translate into improved patient outcomes?

Payer Financial Impact

2. How does improved detection timing translate into measurable cost savings for the payer?

Health System Financial Impact

3. How does improved detection timing translate into measurable cost savings for the health system?

Budget Impact

4. How do new revenue streams through Algorithm use and improved patient outcomes impact health system budgets?

METHODOLOGY (PAGES 16-19)

1 **Create a retrospective cohort**, run the EchoGo Heart Failure algorithm on eligible TTEs, and stratify patients into 'Early Detection' and 'Missed Detection' subcohorts.

2 **Balance baseline characteristics** and assess clinical and economic outcomes of interest.

3 **Run economic models** to compare clinical and economic outcomes in 'AI-Enhanced' and 'Standard of Care' pathways from the payer and health system perspectives.

1 Run EchoGo HF and divide patients into 'Early Detection' and 'Missed Detection' subcohorts

267,736
TTEs meeting EchoGo HF I/E criteria [1]

184,229
TTEs of patients without a prior HF diagnosis and with a LVEF >40% [2]

114,601
Patients with 12+ months of data available before and after index TTE

86,178
First TTE meeting eligibility criteria per patient

80,546
Patients with a prediction

Cohort Assignments after EchoGo HF Run

Early Detection Cohort
- Diagnosis Criteria [3] met regardless of Algorithm prediction

Missed Detection Cohort
- Diagnosis Criteria [3] not met but
- Flagged by EchoGo HF as HFpEF
- Also had Probable H2FPEF Score [4]
- Also had ICD-10 HF diagnosis (I50.X) after 90 days

No HFpEF Cohort
- Diagnosis Criteria [3] not met and
- Not flagged by EchoGo HF as HFpEF or
- Improbable H2FPEF Score [4]

Balance baseline characteristics and assess clinical and economic outcomes of interest

Pre-index period (12 months)
Aug 2018 - June 2023

Index date
Aug 2019 - Jun 2024

Post-index period (12+ months)
Aug 2020 - June 2025

No prior HF diagnosis (ICD-10: I50.x)

Assess **independent variables:**
- Age
- Sex
- Race & Ethnicity
- Charlson-Comorbidity Index (CCI) Score[5]
- Pulmonary Hypertension
- Cardiomyopathy
- MACE Event
- LVEF
- All-Cause ED Visits
- All-Cause Hospitalizations
- Number of GDMT Classes
- Year of Scan

Index date
Day of first eligible TTE

Cohort assignment
Based on Diagnosis Criteria[3] within 90 days of scan

Analyze **outcomes**
- Diagnosis Timing
- GDMT Initiation and Utilization
- Additional HF Diagnostic Tests
- MACE Hospitalizations & Readmissions
- MACE ED Visits
- All-Cause Inpatient Mortality

1. Inclusion & Exclusion criteria were applied to TTE characteristics, including adult, non-color, non-contrast, non-stress, non-3D TTEs with apical-4 chamber clips.
2. EchoGo Heart Failure is FDA-approved for use in LVEF > 50%.
3. HFpEF Diagnosis Criteria: i. First ICD-10 for I50.x within 90 days, ii. Newly initiated GDMT within 90 days, iii. Elevated BNP or NT-proBNP 90 days before or after index TTE, iv. Diastolic dysfunction measured on index TTE. See Limitations on page 20.
4. H2FPEF Score: Clinical risk score used to estimate the likelihood of HFpEF based on obesity, hypertension treatment, atrial fibrillation, pulmonary hypertension, age, and elevated filling pressures. Scores greater than or equal to 6 were considered probable for HFpEF. See Limitations on page 20.
5. Quan. Am J Epidemiol. 2011.

2 Balanced Baseline Characteristics Post-Weighting

To address residual differences in HFpEF severity between cohorts, analyses was restricted to patients who received an ICD-10 heart failure diagnosis (I50.X) after the index TTE. These cohorts were balanced for further comparison using inverse-probability treatment weighting [1]. Balance is checked by ensuring the difference between groups is small with standard-mean difference (SMD) values below 0.1 indicating good balance.

Characteristics	Pre-Inverse Probability Treatment Weighting		Post-Inverse Probability Treatment Weighting	
	EARLY DETECTION	MISSED DETECTION	EARLY DETECTION	MISSED DETECTION
Demographics	**N=1,152**	**N=515**	**wN=1,152**	**wN=1,113.3**
Age (years), mean ± SD	74.0 ± 11.6	76.2 ± 8.4	74.0 ± 11.6	74.5 ± 9.4
Sex, female, n (%)	587 (51.0%)	257 (49.9%)	587.0 (51.0%)	595.1 (53.4%)
Race & Ethnicity [2],non-White, n (%)	130 (11.3%)	34 (6.6%)	130.0 (11.3%)	130.8 (11.8%)
Comorbidities & Disease Characteristics				
CCI Score, mean ± SD	4.6 ± 2.6	4.8 ± 2.3	4.8 ± 2.3	4.7 ± 2.4
Pulmonary Hypertension, n (%)	145 (12.6%)	55 (10.7%)	145.0 (12.6%)	159.7 (14.3%)
Cardiomyopathy, n (%)	52 (4.5%)	27 (5.2%)	52.0 (4.5%)	44.8 (4.0%)
Baseline MACE Event, n (%)	316 (27.4%)	103 (20.0%)	316.0 (27.4%)	318.5 (28.6%)
LVEF, mean ± SD	54.6 ± 8.9	55.8 ± 8.4	66.6 [51.1-53.4]	66.8 [44.2-56.8]
Healthcare Resource Utilization				
All-Cause ED Visits, mean ± SD	0.8 ± 1.3	0.6 ± 1.0	0.8 ± 1.3	0.8 ± 1.2
All-Cause Hospitalizations, mean ± SD	0.6 ± 0.9	0.4 ± 0.8	0.6 ± 0.9	0.6 ± 1.0
Number of GDMT Classes, mean ± SD	1.2 ± 1.0	1.8 ± 1.0	1.2 ± 1.0	1.2 ± 1.0
Year of Scan				
2021, n (%)	263 (22.8%)	192 (37.3%)	263.0 (22.8%)	256.2 (23.0%)
2022, n (%)	333 (28.9%)	191 (37.1%)	333.0 (28.9%)	337.0 (30.3%)
2023, n (%)	423 (36.7%)	109 (21.2%)	423.0 (36.7%)	422.7 (38.0%)
2024, n (%)	118 (10.2%)	12 (2.3%)	118.0 (10.2%)	79.0 (7.1%)

Standard Mean Differences (SMD) Pre- and Post- IPTW

* 2024, SMD = 0.112, study year adjusted in regression analyses

Pre-IPTW SMD Post-IPTW SMD SMD = 0.1

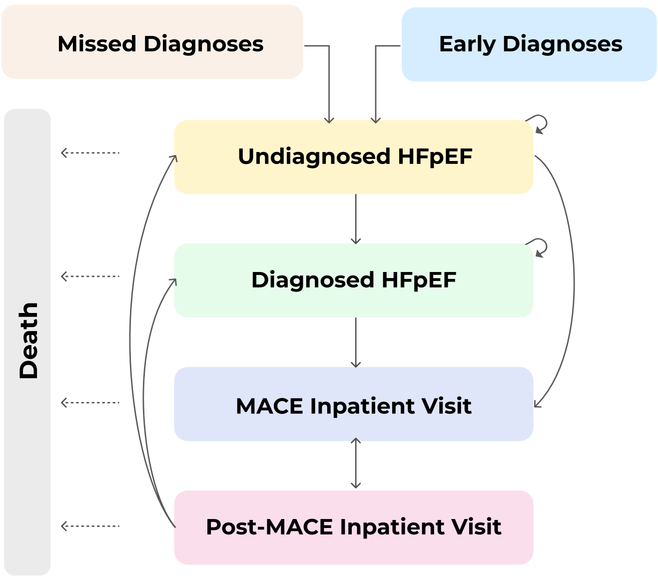
Before weighting (yellow bars): The treatment and control groups are different from each other. The standard-mean difference (SMD) values are large, extending past the red dotted line. After weighting (blue bars): The groups now look more similar. The SMDs shrink below the red dotted line. This means Inverse Probability Treatment Weighting (IPTW) has balanced the groups, so any differences seen in the economic analysis can be more confidently attributed to the Algorithm rather than to pre-existing differences between the groups. The red dotted line is set at 0.1, which is routinely used as a threshold to determine whether an SMD is acceptably low enough that populations are comparable on the characteristic being evaluated.

1. Inverse Probability Treatment Weighting is a method that helps make treatment groups more comparable by adjusting for differences in patient characteristics, mimicking a randomized study. Balance is checked by ensuring the difference between groups is small with standard-mean difference (SMD) values below 0.1 indicating good balance.

2. Race & Ethnicity was classified as White, Non-Hispanic and Non-White given the lower rate of Non-White patients in the cohorts. Non-White included Asian, non-Hispanic; Black or African American, non-Hispanic; Hispanic; Other or Multiple Race; Unknown/Declined.

3 Run economic model to compare outcomes in 'AI-Enhanced' vs. 'Standard of Care' pathways

ECONOMIC MODEL



The economic model uses a Markov-based approach to conduct impact analysis, where patients can move between disease states (e.g., undiagnosed HFpEF > Diagnosed HFpEF) or stay within the same state, as shown by the arrows.

At the start, patients are in either the Early Detection or Missed Detection cohorts. Model inputs (provided below) were calculated for each cohort.

For each cycle of the model, the proportion of patients moving between states was based on transition probabilities specific to each cohort. The model was run for a 5 year period of 30-day cycles (60 cycles total) and aggregate costs and clinical outcomes were calculated for each cohort at the end of the model. These results were the basis for simulation modeling (5,000 simulation model runs) to account for uncertainty. The final proportion of simulation runs that were cost-effective on net under the WTP threshold of $150,000/QALY was 66%.

ECONOMIC MODEL INPUTS

Cost-effectiveness evaluates whether the health benefits of an intervention justify its costs. This analysis compared costs per QALY, a measure that captures both the length of life gained and the associated quality of life.

Inputs

- Transition Probabilities [1]
- Healthcare Resource Utilization [1]
- Mortality Values [2-4]
- Utility Values [5]
- Cost Parameters [3, 6-9]
- Sensitivity Values [10]

Time Horizon

- 30-day cycle lengths
- 5 year time horizon
- Half-cycle corrections applied

Subpopulations

- Sex
- Age
- High Risk for HFpEF (Stage A) [11]
- LVEF ≥ 51
- Race/Ethnicity

Assumptions

- Timely HFpEF impacts resource utilization
- Willingness-to-pay threshold of $150,000 per QALY
- The additional patients diagnosed by EchoGo HF are prior to decompensation as they would have otherwise been missed by regular clinical care

1. Inclusion & Exclusion criteria were applied to TTE characteristics, including adult, non-color, non-contrast, non-stress, non-3D TTEs with apical-4 chamber clips.
2. EchoGo Heart Failure is FDA-approved for use in LVEF > 50%.
3. HFpEF Diagnosis Criteria: i. First ICD-10 for I50.x within 90 days, ii. Newly initiated GDMT within 90 days, iii. Elevated BNP or NT-proBNP 90 days before or after index TTE, iv. Diastolic dysfunction measured on index TTE. See Limitations on page 20.
4. H2FPEF Score: Clinical risk score used to estimate the likelihood of HFpEF based on obesity, hypertension treatment, atrial fibrillation, pulmonary hypertension, age, and elevated filling pressures. Scores greater than or equal to 6 were considered probable for HFpEF. See Limitations on page 20.
5. Quan. Am J Epidemiol. 2011.

3 Run Budget Impact Analysis to compare outcomes in 'AI-Enhanced' vs. 'Standard of Care' pathways

Algorithm-enabled screening generates incremental revenue that outweighs potential losses from reduced acute care utilization, while enabling earlier intervention and improved patient trajectories, which results in favorable clinical and economic value over time.

ECONOMIC MODEL INPUTS

Population Demographics

Number of Scans Annually among non-HF patients[1]	46,000
Incidence of HFpEF among TTE screened patients	18%

	Medicaid	Medicare FFS	Medicare Advantage	Commercial
Primary Payer Mix	25%	25%	25%	25%
Reimbursement Assumptions *(% of Medicare FFS)*	85%	100%	97%	130%

Healthcare Utilization [2]

	ED Visits rate, net cost [3]	Hospitalizations rate, net cost [4]	Readmissions rate, net cost [4,5]
Early Detection Cohort, Algorithm	0.034/year, $30	0.44/year, $1,425	0.102/hosp, $1,109
Early Detection Cohort, Standard of Care	0.034/year, $30	0.48/year, $1,425	0.102/hosp, $1,109
Missed Detection Cohort	0.056/year, $30	0.43/year, $1,427	0.153/hosp, $1,109

Screening Costs

Transthoracic Echocardiogram proportion, net cost [6]	100%, $30
Right Heart Catheterization proportion, net cost [6]	10%, $182
EchoGo Reimbursement [7]	$76
Rate Diagnosed Outpatient [8]	80%
Assumed EchoGo Heart Failure Adoption	100%
Assumed EchoGo Heart Failure Reimbursement	100%

1. Based on Dandelion Health system data, health systems may perform approximately 65,000–100,000 TTEs annually. Of these, 66–75% are conducted in patients without a prior heart failure diagnosis, corresponding to roughly 46,000 TTEs among non-HF patients out of 70,000 total echos per year.
2. The proportion of patients in the Early versus Missed Detection cohorts was estimated using literature reported sensitivity (34%) and specificity (83%) for standard of care [Obokata. Circulation. 2017]. Corresponding estimates for EchoGo Heart Failure were derived from analyses conducted by Dandelion Health using cohort assignment criteria and H2FPEF scores as the reference standard, yielding sensitivity of 84.4% and specificity of 81%. See Limitations on page 20.
3. AHRQ. HCUP NEDS. 2022.
4. AHRQ. HCUP NIS. 2022.
5. Readmissions are reported per initial hospitalizations rather than on a per year basis.
6. CMS. Physician Fee Schedule. 2025.
7. Assumed reimbursement based on National Medicare Average Payment of $316, EchoGo cost per positive scan to the health system of $250, and assumed distribution and reimbursement rate of Payer Coverage.
8. EchoGo is reimbursed in the outpatient setting for TTEs that are deemed positive for HFpEF.

Limitations

RESIDUAL CONFOUNDING BY DISEASE SEVERITY IS LIKELY

Patients in the Early Detection cohort had greater baseline HFpEF severity than those in the Missed Detection cohort. This likely reflects symptoms that were sufficient for clinical recognition at the time of the index TTE. Since this study modeled the potential impact of EchoGo HF for earlier detection with no direct real-world analogue existing in retrospective data, two severity adjustments were applied. First, analyses were restricted to patients who received an ICD-10 heart failure diagnosis after the index TTE to ensure both cohorts consisted of patients whose disease became clinically recognized in the follow-up period. Second, assumptions were required regarding the clinical trajectories of patients who might have been identified earlier by EchoGo HF. Specifically, the model assumed the algorithm would detect a proportion of patients prior to clinical decompensation leading to fewer inpatient diagnoses.

H2FPEF SCORE

The H2FPEF score was used to identify patients with a high probability of HFpEF among individuals who did not meet the EHR-based cohort criteria but for whom the EchoGo HF model predicted probable HFpEF. The score incorporates age, body mass index, E/e' ratio, pulmonary artery systolic pressure, and history of atrial fibrillation; scores greater than 6 indicate a high probability of HFpEF. However, the H2FPEF score is not routinely used in the U.S. as a standalone diagnostic tool in clinical practice. Similarly, ICD-10–based diagnoses alone may not reliably identify patients with true HFpEF. Accordingly, both the H2FPEF score and ICD-10–based diagnosis were used in this analysis as imperfect but pragmatic proxies to approximate HFpEF identification, recognizing the inherent limitations of each approach, which may be explored in subsequent studies.

SCOPE OF ANALYSIS

This report may not capture all factors relevant to health systems or other stakeholders evaluating the Algorithm, as clinical practice is highly variable and context-specific. Considerations outside the scope of this analysis include costs of adoption and system replacement, AI monitoring frameworks, long-term maintenance requirements, and the potential impact on capacity from increased incidental diagnoses or care bottlenecks. A central assumption of the model was that the EchoGo Heart Failure algorithm's primary value lies in its improved sensitivity and ability to reduce false negatives, thereby avoiding missed diagnoses. Specificity and the downstream costs of false positives were not incorporated into the payer-focused economic model, which may lead to overestimation of net benefit.

ECONOMIC ESTIMATES

Several limitations should be considered when interpreting the economic estimates. All costs were derived from external sources, which may not fully reflect the true costs and charges incurred by health systems and payers across the country. The analysis was conducted from a reimbursement perspective and incorporated the $316 National Average Medicare reimbursement for EchoGo Heart Failure-based diagnosis. Healthcare encounters from the Dandelion Health dataset were mapped from ICD-10 codes to estimated payer costs based on cost-to-charge ratios in the HCUP NIS and NEDS data (2022), inflated to the 2025 USD. For inpatient hospitalizations, national charges were adjusted to reflect retrospectively observed mean lengths of stay. Procedure reimbursements were drawn from CMS Physician Fee Schedules, while drug costs were estimated using Veterans Affairs Federal Supply Schedule (September 2025), with reimbursement assumed to equal acquisition cost plus 6% for branded medications and a $3 dispensing fee. Medication dosage and duration were derived from Dandelion data. Collectively, these assumptions and data sources may bias estimates in either direction and should be viewed as approximations rather than precise reflections of actual reimbursement expenditures.

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