Accelerating Growth in Cardiorenal Care

Investor Presentation

June 2026

Safe Harbor Statement

Forward Looking Statement

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities and Exchange Act, as amended regarding our plans, expectations, beliefs, estimates, goals and outlook for the future that are intended to be covered by the Private Securities Litigation Reform Act of 1995. Except for statements of historical fact, all forward-looking statements are management's present expectations and are not guarantees of future events and are subject to a number of known and unknown risks and uncertainties and other factors that may cause actual results to differ materially from those expressed in, or implied by, such forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "could," "would," "should," "plan," "predict," "potential," "project," "promising," "expect," "estimate," "anticipate," "intend," "goal," "strategy," "milestone," and similar expressions and variations thereof. Various factors could cause actual results to differ materially from these statements including our ability to execute on our commercial strategy and to grow our Aquadex® business, the possibility that we may be unable to raise sufficient funds necessary for our anticipated operations, our clinical data collection activities, benefits of our products to patients, our expectations with respect to product development and commercialization efforts, our ability to increase market and physician acceptance of our products, potentially competitive product offerings, intellectual property protection, our expectations regarding anticipated synergies with and benefits of the Aquadex business, our business strategy, market size, potential growth opportunities and the other risks set forth under the caption "Risk Factors" and elsewhere in our periodic and other reports filed with the U.S. Securities and Exchange Commission ("SEC"), including our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 and subsequent Quarterly Reports on Form 10-Q. We are providing this information as of the date of this presentation, and we undertake no obligation to update any forward-looking statements contained in this presentation as a result of new information, future events or otherwise. Although the Company believes that the forward-looking statements are reasonable and based on information currently available, it can give no assurances that the Company's expectations are correct. All forward-looking statements are expressly qualified in their entirety by this cautionary statement.

Financial and Statistical Data

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market shares and other data about our industry. These data involve a number of assumptions and limitations and have not been reviewed or audited by our independent registered accounting firm. You are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. Neither we nor our advisors or representatives make any representations as to the accuracy or completeness of that data or undertake to update such data after the date of this presentation.

Trademarks

The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of such products.

Additional Information

You should read the documents that we have filed with the SEC for more complete information about us. We encourage you to read such documents in full for more detailed information, statistics, reports and clinical trials referenced in this presentation. You may access these documents for free by visiting EDGAR on the SEC website at http://www.sec.gov.

Risk Statement

Investing in our securities includes a high degree risk. You should consider carefully the risk factors described in our Annual Report on Form 10-K for the year ended December 31, 2025 and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, including specific risk factors discussed below, together with all of the other risk factors and information contained in our SEC filings. If any of the following risks actually occurs, our business, financial condition, results of operations and future prospects would likely be materially and adversely affected. This could cause the market price of our securities to decline and could cause you to lose all or part of your investment. Risks include but are not limited to:

- We are raising additional capital to fund our operations through the end of fiscal year 2026. If additional capital is not available, we will have to delay, reduce or cease operations.
- Our near-term prospects are highly dependent on revenues from a single product, the Aquadex System. We face significant challenges in expanding market acceptance of the Aquadex System, which could adversely affect our potential sales.
- We have limited history of operations and limited experience in sales and marketing, and we might be unsuccessful in increasing our sales and cannot assure you that we will ever generate substantial revenue or be profitable.
- We have incurred operating losses since our inception and anticipate that we will continue to incur operating losses in the near term.
- We have identified two material weaknesses in connection with our internal control over financial reporting which, if not remediated, could adversely affect our business, reputation and stock price.
- We depend on a limited number of customers, the loss of which, or failure of which to order our products in a particular period, could cause our revenues to decline.
- If we cannot develop adequate distribution, customer service and technical support networks, then we may not be able to market and distribute the Aquadex System effectively and our sales will suffer.
- We have experienced and may continue to experience product defects or issues with quality management, which may result in lawsuits for product liability, and could harm our business, results of operations and financial condition.
- Our business could be adversely affected due to risks related to recent acquisitions and the subsequent integration of such accumulations.
- If we fail to comply with federal and state laws regarding off-label use of our products, we could be subject to regulatory or enforcement actions and face substantial civil and criminal penalties and our business, financial condition, results of operations, and prospects could be adversely affected.
- If we or any of our independent contractors, consultants, collaborators, manufacturers, vendors or service providers fail to comply with healthcare laws and regulations, we or they could be subject to enforcement actions, which could result in penalties and affect our ability to develop, market and sell our product candidates and may harm our reputation.
- If we were unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and system could be adversely affected.
- Nasdaq may delist our common stock from its exchange which could limit your ability to make transactions in our securities and subject us to additional trading restrictions.
- Nasdaq has proposed enhanced listing standards, which could adversely affect our ability to maintain our Nasdaq listing and access to capital markets.
- The rights of holders of our capital stock will be subject to, and could be adversely affected by, the rights of holders of our outstanding preferred stock and stock that may be issued in the future.
- There may be future sales of our securities or other dilution of our equity, which may adversely affect the market price of our common stock.
- We are subject to litigation which could result in a material impact on our business, results of operations, and financial condition.
- Worldwide economic and market conditions, an unstable economy, a decline in consumer spending levels and other adverse developments, including inflation, could adversely affect our business, results of operations and liquidity, and stock price.

Strong Q4 2025 and Q1 2026 commercial momentum

Commercial Execution

- 26% YoY Revenue Growth in Q1 2026
- Growth achieved across Pediatric, Critical Care, and Heart Failure segments
- Three strategic commercial hires completed with Aquadex training finalized
- Mike McCormick appointed Chief Commercial Officer

Clinical & Market Expansion

- Pediatrics now represent ~50% of company revenue based on Q1 2026 results
- Critical Care now ~25% of business and accelerating
- Heart Failure ~25% of business
- Pediatric FDA pre-submission underway to expand indication down to 5kg
- RendiaTech acquisition expands critical care and cardio-renal monitoring capabilities

Leadership & Infrastructure

- New CFO, Carisa Schultz, strengthening operational and capital markets leadership
- New Board member added
- Expanded critical care and pediatric KOL engagement

Operational Discipline

- Executing initiatives to reduce monthly cash burn in Q4 to $500K per month, a reduction of ~60% from Q1 levels. Spend reductions driven mainly by project and hiring delays, plus lower consulting costs
- Exited unprofitable OUS operations
- Discontinued Reverse-HF trial to prioritize highest-return programs

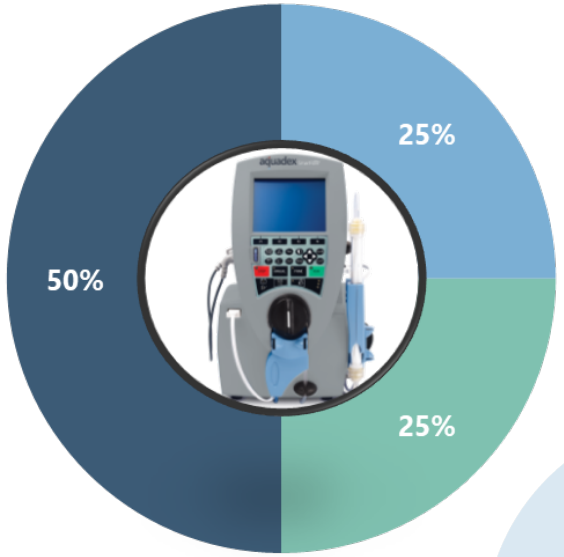
Nuwellis Is Transitioning Toward Scaled Commercial Growth

Commercial Momentum Driven by High-Growth Clinical Categories:

- Pediatrics, now ~50% of revenue, continues to accelerate across leading children's hospitals
- Critical care adoption expanding across ICU and cardiac surgery programs

Current Revenue Mix Driven by Pediatrics and Critical Care

Pediatrics and Critical Care now represent ~75% of revenue



Our Solution

Aquadex®

A clinically proven therapy for precise, predictable fluid removal[1]

- Low-volume ultrafiltration designed for critically ill patients
- Allows controlled fluid removal when diuretics fail
- Adopted in ICU, cardiac surgery, and pediatric critical care programs

1: Pinney, S et. al., *J AM Coll Cardiol HF*, 2025, ISSN 2213-1779
https://doi.org/10.1016/j.jchf.2024.11.018

Expanding Beyond Fluid Removal Into Critical Care Monitoring

Leveraging our ICU and pediatric commercial infrastructure to expand into adjacent monitoring and therapy markets

CURRENT COMMERCIAL ENGINE

aquadex SmartFlow®

Precision fluid removal platform deployed across ICU and pediatric centers

NEAR-TERM EXPANSION

Clarity PRIME

Automated urine output and electrolyte monitoring for critical care

LONG-TERM PEDIATRIC UPSIDE

Next-generation pediatric renal support platform

Expands revenue opportunities within existing ICU and pediatric accounts

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Fluid Overload Drives Mortality, Readmissions and ICU Costs

Fluid Overload is **a leading cause of costly hospital readmission** post 30 days following cardiac surgery[2]

Critical Care

Higher ICU Mortality
Fluid overload is associated with significantly increased 90-day mortality in critically ill ICU patients[3]

Pediatric

Increased Pediatric Mortality
Fluid overload is linked to substantially higher mortality in critically ill children[4-5]

Heart Failure

Key driver of hospitalizations
~90% of HF hospitalizations are associated with symptoms of fluid overload[6]

2. Iribarne A, et al. Ann Thorac Surg. 2014; 98(4): 1274-80. 3. Vaara ST et al. Crit Care.2012; 16: 1-11. 4: Sutherland SM, et al. Am J Kidney Disease. 2010; 5(2): 316-25. 5. Gillespie RS, et al. Ped Nephro. 2004; 19(12): 1394-99. 6. Costanzo MR, et al. JACC. 2017 May 16;69(19):2428-2445.

Why Hospitals Are Adopting Precision Fluid Management

Mortality

Fluid overload > **5%** body-weight gain is associated with significantly higher mortality across ICU cohorts.[7]

Acute Kidney Injury Risk (AKI)

Postoperative AKI drives higher mortality and longer ICU/PICU stays.[8]

Readmissions

In HF and CV surgery, persistent fluid overload at discharge predicts unplanned readmission within 30 days of discharge.[9]

Pediatric Safety

Aquadex's low priming blood volume (35 ml) can mitigate complications of other therapies used in children with AKI or ESKD.[10]

7. **Messmer AS, Zingg C, Müller M, Gerber JL, Schefold JC, Pfortmueller CA.** Fluid overload and mortality in adult critical care patients: A systematic review and meta-analysis of observational studies. *Crit Care Med.* 2020;48(12):1862–1870 8. **McIlroy DR, Engelman DT, Shaw AD, et al.** Perioperative Quality Initiative (POQI) and Enhanced Recovery After Surgery (ERAS) Cardiac Society Joint Consensus Statement on Adult Cardiac Surgery–Associated Acute Kidney Injury (CSA-AKI) 9. **Abraham WT, Adamson PB, Bourge RC, et al.** Wireless pulmonary artery haemodynamic monitoring in chronic heart failure: A randomised controlled trial. *Lancet.* 2011;377(9766):658–666 10: Menon S, Broderick J, Munshi R, et al. Kidney Support in Children using an Ultrafiltration Device: A Multicenter, Retrospective Study. *Clin J Am Soc Nephrol.* 2019;14(10):1432-1440. doi:10.2215/CJN.03240319

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Nuwellis' Total U.S. Platform Potential Opportunity Exceeds $4.2B Today

Aquadex, Vivian, and Clarity collectively address an enormous market opportunity

$4.2B

Clinical Addressable U.S. Market

Critical Care

$900M Market[11]

Inpatient HF

$1B Market[11]

Outpatient HF

$770M Market[11]

Pediatrics

$160M Market[11]

Fluid Monitoring

Kidney Output

$1.4B Market[11]

11: See Appendix

Pediatric Adoption of Aquadex Validates Both the Market Need and the Pathway for a Dedicated Pediatric Solution

Providers are increasingly seeking out Aquadex for use with children, validating both the clinical demand and the growing commercial footprint in pediatric centers.

Adopted in 47 of the top U.S. children's hospitals[12]

Reflecting strong physician-driven demand.

Integrated into NICUs, PICUs, and CVICUs

Providing precise, gentle fluid removal for critically ill children who require controlled ultrafiltration.

Sustained Utilization Growth

Signaling increasing clinical reliance and expanding need across pediatric care teams.

12. U.S. News & World Report Best Children's Hospitals by Specialty, https://health.usnews.com/best-hospitals/pediatric-rankings

Aquadex Demonstrated Improved Survival in Pediatric Setting

Demonstrated 87% Survival in Children with Acute Kidney Injury (AKI), Fluid Overload or Congenital Kidney Failure Following Treatment with Aquadex®

ULTRA-Peds

Ultrafiltration Therapy Registry Using Aquadex

Subjects	91 pediatric patients
Sites	7 sites across the US
Diagnoses Included	• 30% - Congenital Heart Disease • 25% - End-Stage • 14% - Malignancy

Study Highlights

87% of patients survived their Aquadex treatment course

66% survived to hospital discharge

"For our babies born with diseased or absent kidneys, Aquadex has given them a chance at life because in the past, there were no options to treat these patients."

Kara Short, MSN, CRNP, NICU nurse practitioner at Alabama Children's Hospital

Full dataset expected to be published in 2026, pending acceptance by journal publisher

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FDA Regulatory Milestone Supports Pediatric Growth Expansion

Successfully completed FDA pre-submission meeting for proposed Aquadex **label expansion to pediatric patients ≥5 kg**

Proposed expansion supported by:

- 10+ years of published pediatric clinical experience
- Real-world utilization at leading pediatric centers
- Growing physician adoption in patients weighing 5–20 kg

Strategic Impact:

- Addresses significant unmet need for controlled fluid management in low-weight pediatric patients
- Expands long-term pediatric market opportunity
- Company anticipates FDA submission by year-end 2026

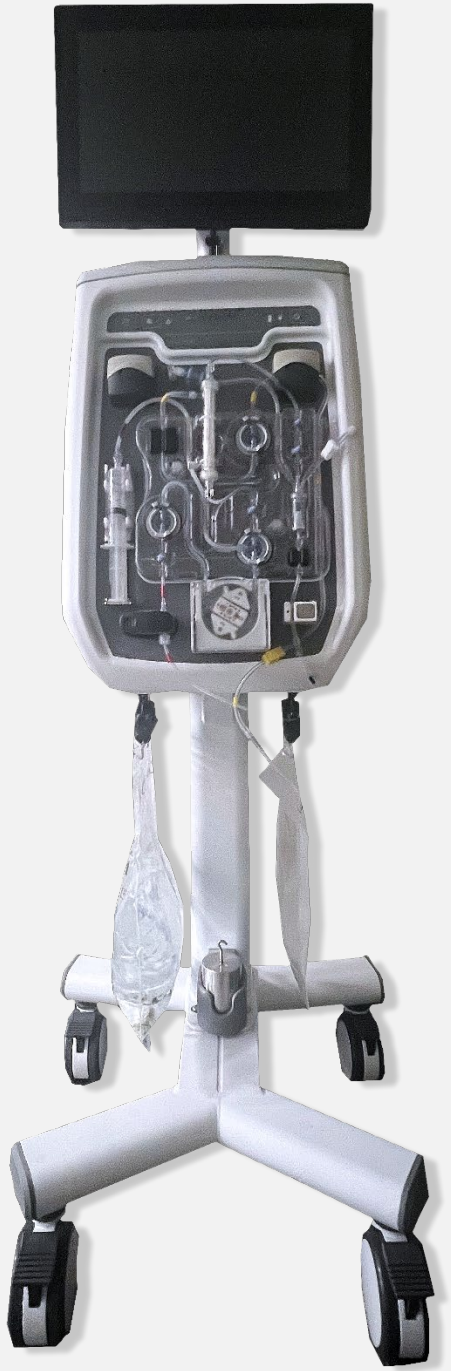
Introducing

Vivian™

Developing our dedicated pediatric solution

Currently in development and supported by a $3M NIH grant.

- Ultra-low ECV (29–67 mL) for neonatal + small-child CRRT
- Engineered for patients as small as 2.5kg with unique Hematocrit and SVO_2 sensor safety features
- Integrated UF, CVVH, and CVVHD therapies in one platform



ClarityPRIME* Systems Expands Nuwellis Into Smart Fluid Monitoring

Acquisition extends our cardiorenal platform into the fast-growing fluid-monitoring market.

1. Addresses a Critical Need in Cardiac Surgery & Critical Care

Real-time urine output and electrolyte data are essential for early detection of AKI.

2. Enters a High-Growth, Underpenetrated Market

Targets the emerging automated urine monitoring segment within the broader urinalysis and critical care monitoring market.

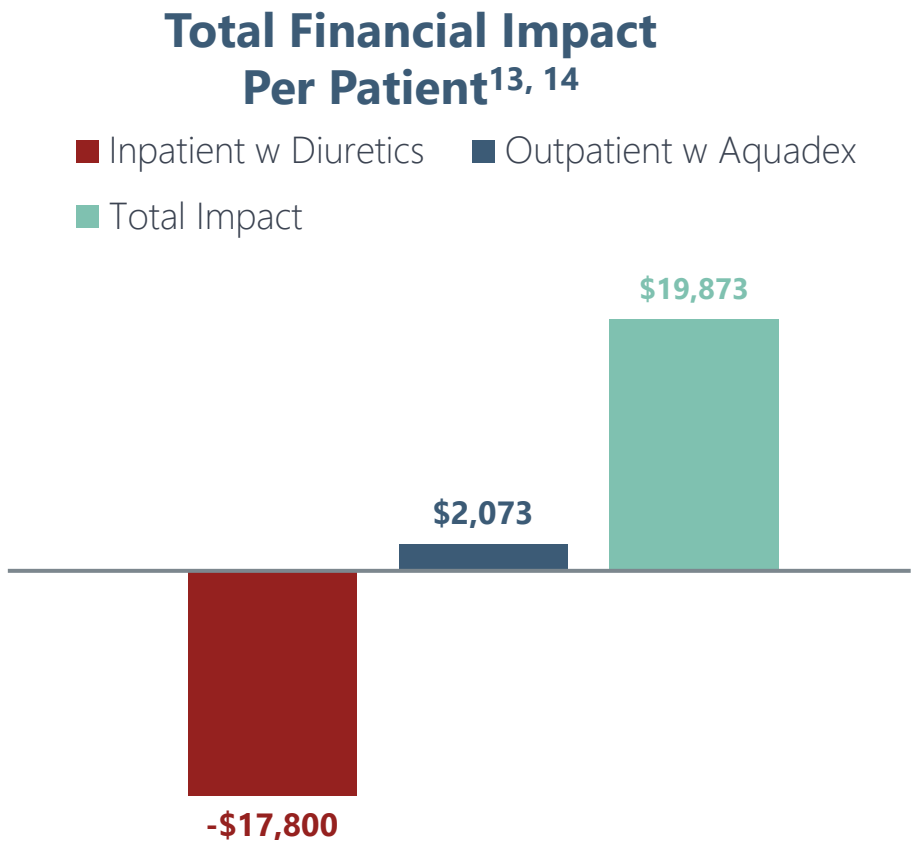
3. Fits Directly Into Our Existing Sales Channel

RMS price point (**$2,500 console; $60–80 kits**) aligns with Aquadex's critical care sales and our common call point.

*ClarityPRIME is currently under development and is not FDA cleared.

Turning Higher Outpatient Reimbursement into Better Hospital and Economic Outcomes

With the reassignment of CPT 0692T in early 2025 – **from $413 to $1,591 per day** – hospital-based outpatient programs are growth opportunity for Nuwellis.



Cost Avoidance

Proactive hospital-based outpatient care helps reduce costly HF readmissions (up to **$24,000** per event)[13]

Recurring Revenue

Higher reimbursement creates a predictable, continuous revenue stream

13: From Premier Applied Sciences database 14: Reimbursement estimates from MCRA, the company's reimbursement consultant

High-Margin Recurring Revenue Model

Aquadex Console Capital Equipment

One-time CapEx purchase

Price point: high-value

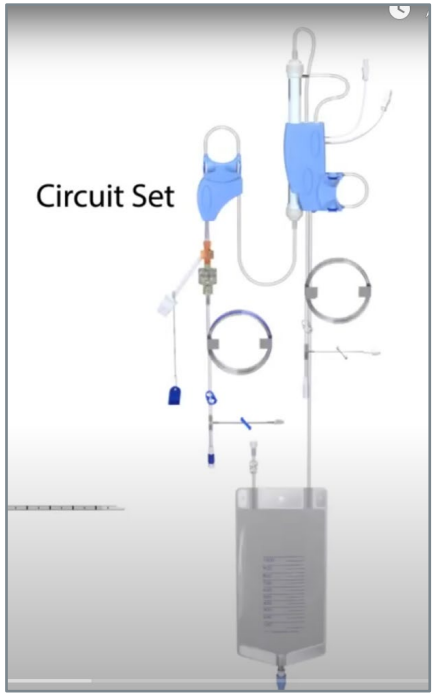
Flexible acquisition models: purchase, lease or rental

Disposables Recurring Revenue

Single-use for every treatment

High-margin

Increasing utilization as adoption spreads



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Nuwellis Leadership Team

Over 200 years of combined experience in clinical practice and the medical device industry, including major tenures at J&J, Boston Scientific, Medtronic, and Abbott/St. Jude Medical.

John Erb
Chief Executive Officer

Carisa Schultz
Chief Financial Officer

Mike McCormick
Chief Commercial Officer

Ryan Marthaler
Vice President of Product Marketing and Business Development

David Lerner
Vice President of Research and Development

Scott Campbell
Regional Vice President of Sales

Betsy Riemenschneider
Regional Vice President of Sales

Kelsey Newell
Senior Director of Medical Affairs

Neil Ayotte
Sr. Vice President, General Counsel, Chief Compliance Officer

Kim Anderson
Vice President of Operations

Capitalization Overview

As of May 27, 2026	Common Equivalents
Common Stock	2,942,048
Preferred Stock*	80,276
Warrants (weighted avg. exercise price: $4.57)	3,996,000
Pre-funded Warrants	558,000
Options (weighted avg. exercise price: $4.59)	61,422
Fully Diluted, including Pre-funded Warrants	7,637,746

*As of May 27, 2026, there were 27 shares of Series F Convertible Redeemable Preferred Stock, par value $0.0001 per share (the ''Series F Convertible Preferred Stock'') outstanding, convertible into 35,532 shares of common stock. The certificate of designation for our Series F Convertible Preferred Stock contains an anti-dilution provision, which provision requires the lowering of the applicable conversion price, as then in effect, to the purchase price per share of common stock or common stock equivalents issued in the future. If the effective price per share on a common-stock equivalent basis in a future equity offering is lower than the then-current conversion price of the Series F Convertible Preferred Stock, then such conversion price shall be reduced to such lower price and additional shares of common stock will be issuable upon the conversion of the Series F Convertible Preferred Stock. To the extent the outstanding shares of Series F Convertible Preferred Stock become exercisable for additional shares of common stock, holders of our common stock will experience further dilution.

As of May 27, 2026, there were 34 shares of Series F-1 Convertible Preferred Stock outstanding, convertible into 44,744 shares of common stock. If, at any time while this Preferred Stock is outstanding, the Corporation or any Subsidiary, as applicable sells, agrees to sell, or grants any option to purchase or sells or grants any right to reprice, or otherwise disposes of or issues (or announces any sale, agreement to sell, grant or any option to purchase or other disposition), any Common Stock or Common Stock Equivalents entitling any Person to acquire shares of Common Stock at an effective price per share that is lower than the then Conversion Price (such lower price, the "Base Conversion Price" and such issuances, collectively, a "Dilutive Issuance") (if the holder of the Common Stock or Common Stock Equivalents so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share that is lower than the Conversion Price, such issuance shall be deemed to have occurred for less than the Conversion Price on such date of the Dilutive Issuance), then the Conversion Price shall be reduced to equal the Base Conversion Price. Such adjustment shall be made no later than whenever such Common Stock or Common Stock Equivalents are issued.

As of May 27, 2026, there were 147 shares of Series J Convertible Preferred Stock outstanding, convertible into 87 shares of common stock and 582 Series J Convertible Preferred Stock issuable upon the exercise of 47 warrants issued in the October 2023 Offering.

Driving Revenue Growth with Improved Operating Discipline

Commercial Focus

- Prioritizing investment in pediatrics, critical care application expansion, and outpatient growth
- Supporting continued commercial momentum in core markets
- Pursuing select distribution partnerships and strategic growth opportunities

Operating Discipline

- Exited unprofitable OUS operations
- Aligning resources with near-term revenue opportunities

Improved Cash Profile

- Executing initiatives to reduce monthly cash burn in Q4 to $500K per month, a reduction of ~60% from Q1 levels
- Expected operating leverage as recurring utilization continues to scale

Target 2026-2027 Milestones

Target Date	Milestone
Q2 2026	Pediatric 5kg label expansion FDA pre-sub meeting completed
Q3 2026	Publish ULTRA-Peds data
Q3 2026	FDA 510k submission for Pediatric indication expansion to 5kg (from 20kg)
Q4 2026	Announce strategic partnership/distribution agreement
Q4 2026	Burn reduced to ~$500K/month
Q1 2027	FDA clearance Pediatric indication expansion to 5kg
2027	ClarityPRIME commercial launch

Thank You

Appendix

Market Size Sources

Heart Failure – Inpatient

- Incidence of HF: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5494150/
- Annual HF Hospitalizations: Costanzo MR, et al. J Am Coll Cardiol. 2017 May 16;69(19):2428-2445
- Insufficient diuretic response: https://www.ahajournals.org/doi/10.1161/CIRCHEARTFAILURE.115.002370?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

Heart Failure – Outpatient

- Incidence of HF: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5494150/
- Annual HF Hospitalizations: Costanzo MR, et al. J Am Coll Cardiol. 2017 May 16;69(19):2428-2445
- Diuretic resistance rate: https://www.ahajournals.org/doi/10.1161/CIRCHEARTFAILURE.115.002370?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

Critical Care

- VADs: https://www.grandviewresearch.com/industry-analysis/ventricular-assist-devices-market
- CABG: https://www.grandviewresearch.com/industry-analysis/coronary-artery-bypass-graft-cabg-market
- Valves: https://idataresearch.com/over-182000-heart-valve-replacements-per-year-in-the-united-states/
- Liver Transplants: https://www.healthline.com/health/liver-transplant-survival
- Liver Disease: https://www.ncbi.nlm.nih.gov/pubmed/25291348
- Kidney Disease: https://www.kidney.org/news/newsroom/factsheets/KidneyDiseaseBasics
- Sepsis: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6557150/
- ECMO: https://www.uclahealth.org/medical-services/heart/ecmo/research/statistics

Pediatrics

- Renal Replacement/AKI: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3789331/#:~:text=The%20hospitalized%20population%20at%20risk,are%20shown%20in%20Table%201
- Heart Disease: https://www.cdc.gov/ncbddd/heartdefects/data.html#:~:text=Congenital%20heart%20defects%20are%20conditions,the%20United%20States%20each%20year
- Pediatric Transplantations: https://www.organdonor.gov/about/donors/child-infant.html
- Pediatric ECMO: https://www.ncbi.nlm.nih.gov/pubmed/23246046