chf solutions™

(NASDAQ: CHFS)

Corporate Presentation
September 2017

17-1015-C

Forward Looking Statement

This presentation contains forward-looking statements. All forward-looking statements are management's present expectations of future events and are subject to a number of risks and uncertainties. Various factors could cause actual results to differ materially from these statements including our ability to execute on our strategic realignment and to grow our Aquadex business, our post-market 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, 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, including our Annual Report or Form 10-K for the fiscal year ended December 31, 2016. We are providing this information as of the date of this presentation and do not undertake 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.

chf solutions

Aquadex Business Overview

Business and Market Overview

- CHF Solutions provides Aquadex and its Aquapheresis therapy, a form of ultrafiltration to reduce fluid overload in heart failure patients, when diuretics fail.
  - Acquired from Baxter in August 2016.
  - FDA 510(k) market cleared and CE marked.
  - Installed base of 500+ consoles, in over 300 US hospitals and successfully used on over 60k patients
- There are over 5 million people in the US with congestive heart failure
- There are approximately 1 million US hospital admissions per year for heart failure
- Approximately 90% of US hospital admissions for heart failure are due to fluid overload

Product Highlights

- Clinically proven to remove nearly 40% more fluid in patients than conventional diuretic drug therapy over the same period of time
- Patients have 50% lower 90-day readmission rates than those treated solely with diuretics
- Proven in clinical trials to reduce the hospital length of stay for heart failure admissions
- The three largest cardiology societies have published guidelines recommending ultrafiltration

Aquadex Console

Venous Catheter

Blood Circuit Set

chf solutions

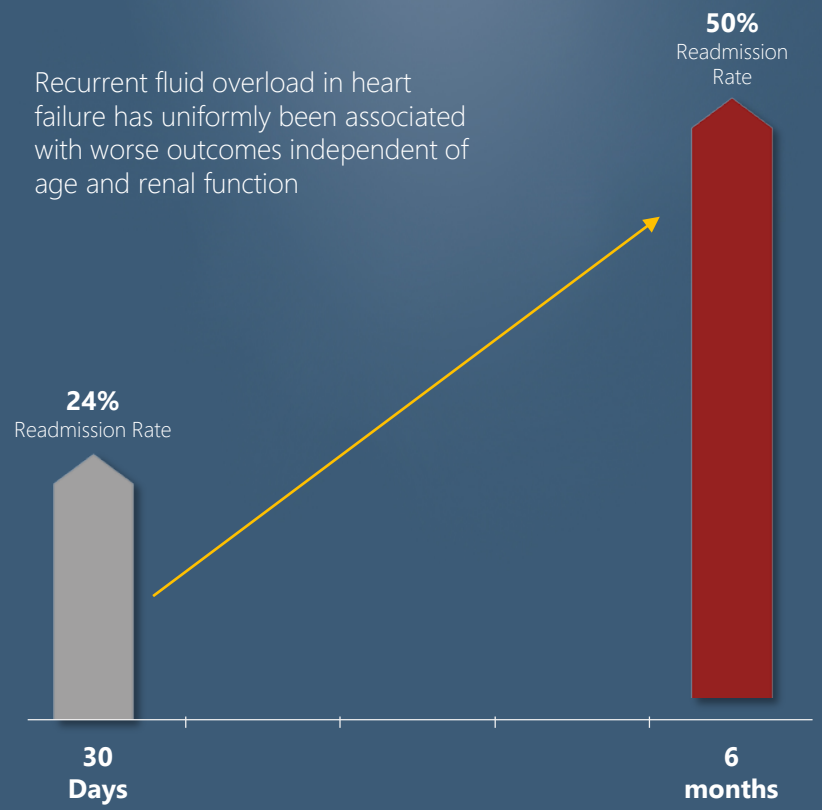
Market Opportunity

Heart Failure's Significant Burden

Congestive Heart Failure

- ~5 million people in the U.S. experience congestive heart failure on an annual basis
- Heart failure is a weakening of the heart's pumping ability, which causes fluid retention in the body
- ~ 1 million hospital admissions per year in US hospitals for congestive heart failure
- ~ 90% of these admissions present with fluid overload
- The average hospital length of stay for a heart failure patient is 6 days, Medicare reimbursement pays a 4 day hospital stay
- Heart failure cost in the US is projected to increase from $31 billion in 2012 to $70 billion in 2030

Challenges of Heart Failure and Fluid Overload



Sources: Ross JS, et al. *Circ Heart Fail*. 2010 Jan; 3(1): 97-103.
Desai AS, Stevenson LW. *Circulation*. 2012 Jul 24; 126(4): 501-506

chf solutions

Treatment of Fluid Overload

Symptoms and Treatment of Fluid Overload

Symptoms

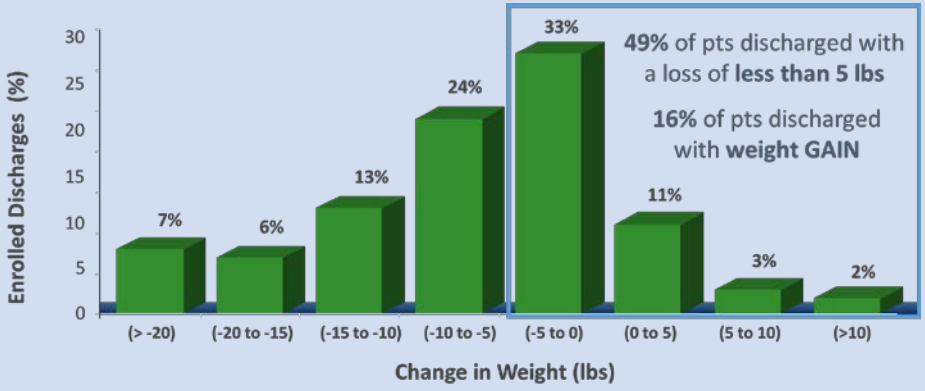
- Increased weight gain, particularly over short period
- Swelling in legs and arms
- Fluid in abdomen
- Difficulty in breathing and shortness of breath

Treatment

- Diuretic (e.g. Lasix/Furosemide)
- Secondary pharmacologics
- Ultrafiltration

When Diuretics Fail

Although effective early in HF, diuretic agents become increasingly ineffective with disease progression
(due to the development of unresponsiveness in a significant subset of patients).



ADHERE Registry: Weight at Discharge

ADHERE Scientific Advisory Committee. ADHERE Final Cumulative National Benchmark Report. Mountain View, CA: Scios Inc.; 2006

chf solutions

Today's Healthcare Environment

Hospital Readmission Reduction Program:
Effective as of Oct 1, 2012

- Requires CMS to reduce payments to hospitals with excess readmissions
- Penalty: hospitals can lose **≤ 3%** of Medicare reimbursement

80% of all Readmissions are due to Heart Failure

†Readmissions Reduction Program (HRRP). Centers for Medicare & Medicaid Services website. https://www.cms.gov/medicare/medicare-fee-for-service-payment/acuteinpatientpps/readmissions-reduction-program.html. Updated April 18, 2016. Accessed May 25, 2016.

chf solutions

Aquadex Product Overview

Indications For Use

The Aquadex FlexFlow® System is indicated for:

- Temporary (up to 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy

- Extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization

chf solutions

Aquadex FlexFlow® System

Safe • Effective • Predictable

Aquadex FlexFlow Console

- Patented, innovative design
- Easy to use
- Peripheral or central access*
- Clinician-selected rate of fluid removal (0 – 500 ml/hr)
- Highly automated
- Used often in 4:1 RN ratios in Stepdown

Designed complete with a hematocrit sensor to monitor blood volume changes real time!

chf solutions

Aquadex FlexFlow® System

Safe • Effective • Predictable

Aquadex FlexFlow Extracorporeal Blood Set

- **Fully integrated blood set**
- **Low blood volume** required, only 35 ml
- Up to 72 hours of inpatient use
- Removes up to 500 ml/hr

chf solutions

aquadex FlexFlow®

Aquapheresis (Ultrafiltration) Therapy:

- Provides precise control over rate and total volume of fluid removed
- Removes isotonic fluid
  - Extracts more sodium than diuretic therapy while sparing potassium and magnesium[1]
- No Direct Neurohumoral Activation
  - Reset toward a more physiological condition and diuretic efficacy is restored[2]
- Effectively and safely decrease length of stay and readmissions[3]

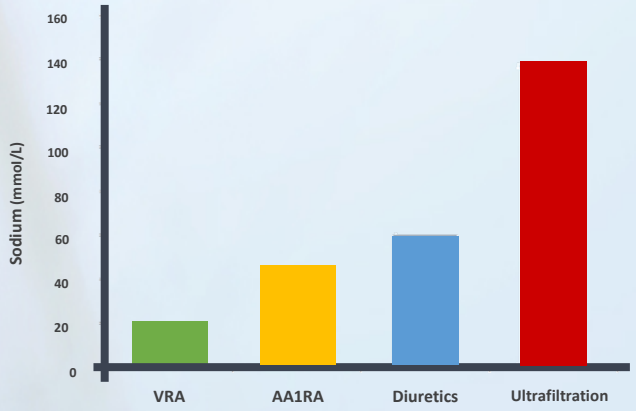
1. Ali SS, et al. *Congest Heart Fail*. 2009; 15(1):1-4
2. Marenzi G, et al. *J Am Coll Cardiol*. 2001 Oct; 38(4): 963-968.
3. Costanzo MR, et al. *J Am Coll Cardiol*. 2005 Dec 6; 46(11): 2047-2051.

chf solutions

Aquapheresis

Removing the Greatest Amount of Sodium

- Aquapheresis has a differential mechanism of action that removes the greatest possible amount of sodium per unit of fluid withdrawn[1]
- No **serum** electrolyte depletion (Mg, K)[2]



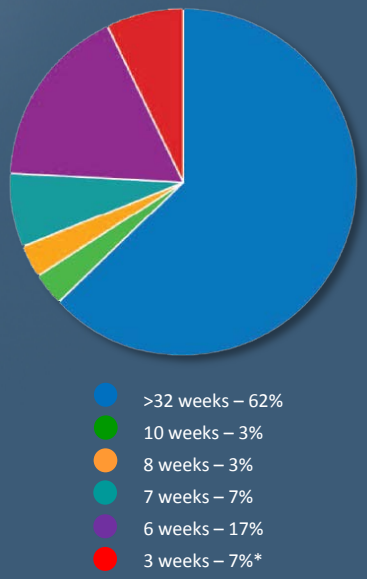
1. Agostoni PG, et al. *Cardiology*. 2001; 96(3-4): 183-189.
2. Ali SS, et al. *Congest Heart Fail*. 2009; 15(1):1-4

chf solutions

Good Samaritan Hospital
(A Single Center Experience)

- Independent study on 67 patients who received Aquapheresis
- **No 30-day readmits for volume overload**
- Average of 5.7L removed per patient
- 62% of patients were 32 or greater weeks before next admission
- **Length of Stay when started within 24 hours was 2.2 days**
- Readmission rate from before Aquapheresis down from 12% to 4% the year prior

Weeks to Admission



Admission unrelated to volume status (n=2)

*Data presented at the National Teaching Institute & Critical Care Exposition (NTI) in Chicago, IL on May 5-8, 2008. Results may vary.

chf solutions

Clinical Evidence

JACC Article (May 16, 2017)
Significant Clinical Evidence

Purpose:
JACC article reviewed all available clinical data because:

- More than 1 million heart failure hospitalizations occur annually as a result of congestion
- Decongestive pharmacological therapy (diuretics) have not helped

Conclusions:

- Ultrafiltration is an attractive alternative therapy because it predictably removes total body sodium.
- The urgency of investigations is underscored by the alarming prognostic and economic implications of recurrent heart failure hospitalizations, which remain unacceptably high with conventional pharmacological therapies.

chf solutions

Aquadex FlexFlow® Ultrafiltration System

Significant Clinical Evidence

Study Name	Study Design	# of Patients	Rationale	Publication Date
SAFE	Multi-center, prospective, single-arm	21	IDE for 510k	2003 JCF
RAPID-HF	Multi-center RCT	40 20 UF/20 SC	Early UF vs Diuretics	2005 JACC
EUPHORIA	Single-center, prospective single-arm	19	Early UF in diuretic resistance	2005 JACC
UNLOAD	Multi-center RCT	200 100 UF/100 SC	UF vs SC	2007 JACC
CARRESS-HF	Multi-center RCT	188 94 UF/94 SC	UF vs SC patients with cardiorenal syndrome	2012 NEJM
AVOID-HF	Multi-center RCT	224 110 UF/114 SC (810 planned)	UF vs SC to evaluate readmissions	2015 JACC:HF

chf solutions

Clinical Guidelines Support Aquapheresis Use

Society	Source
HFSA - Heart Failure Society Of America	HFSA 2010 Comprehensive Heart Failure Practice Guidelines[1]
ESC / HFA - European Society of Cardiology and Heart Failure Association	ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012[2]
CCS - Canadian Cardiovascular Society	2012 Canadian Cardiovascular Society Heart Failure Management Guidelines Update[3]

***CHF Solutions is not recommending the use of Aquapheresis in lieu of diuretics. The Aquadex FlexFlow System is indicated for ultrafiltration treatment of fluid overload in the event of diuretic failure.**

1. Lindenfeld J, et al. *J Card Fail.* 2010 Jun; 16(6): 475 – 539.
2. McMurray JJ, et al. *Eur Heart J.* 2012 Jul; 33(14): 1787 – 1847.
3. McKelvie RS, et al. *Can J Cardiol.* 2013 Feb; 29(2): 168 – 181.

chf solutions

Aquapheresis Summary

Descriptor	Detail
Indicated for	Patients with fluid overload who have failed diuretic therapy*
Venous Access	Peripheral or central**
Treatment Setting	Outpatient or inpatient (e.g. telemetry/stepdown)
Fluid Removal Rate	0 - 500 ml/hour by 10 ml increments
Blood Flow Rate	20 - 40 ml/min
Blood Set Volume	35 ml
Ease of Use	Only 1 required setting, setup less than 10 minutes

*__Indication for Use__: The Aquadex FlexFlow® system is indicated for temporary (up to eight hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy, and extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization. All treatments must be administered by a healthcare provider, under physician prescription, both of whom having received training in extracorporeal therapies.

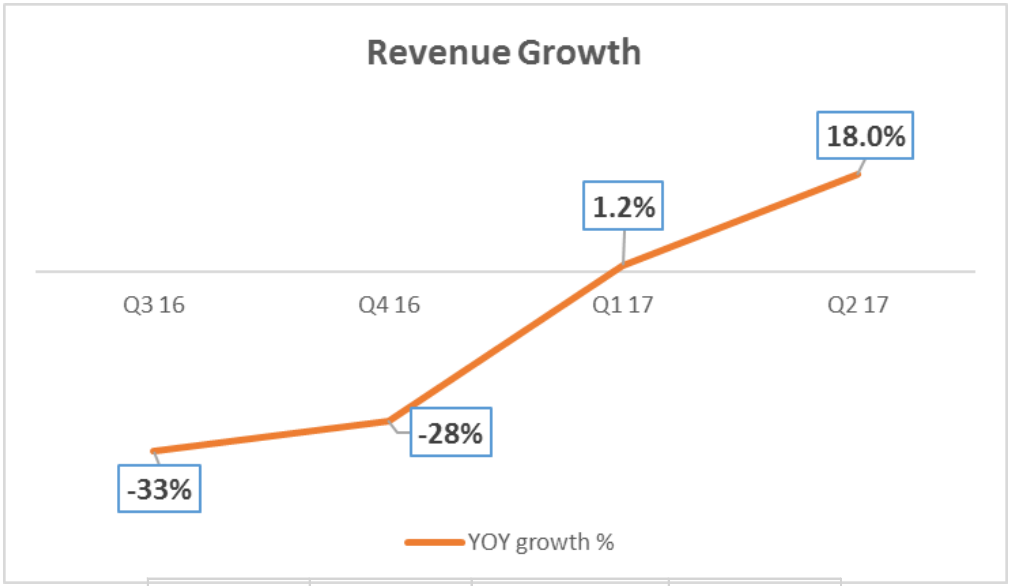
**Refer to IFU for warnings related to central venous access.

chf solutions

Aquadex Revenue Overview

Revenue ($,000)

The acquisition of the Aquadex business in August 2016 coupled with management's new business strategy has delivered increasing revenues and growth



Q3 '16	Q4 '16	Q1 '17	Q2 '17
$ 484	$ 746	$ 901	$ 864

(*) Quarterly numbers reflect revenue since August 5, 2016 acquisition

Q2 2017 update:

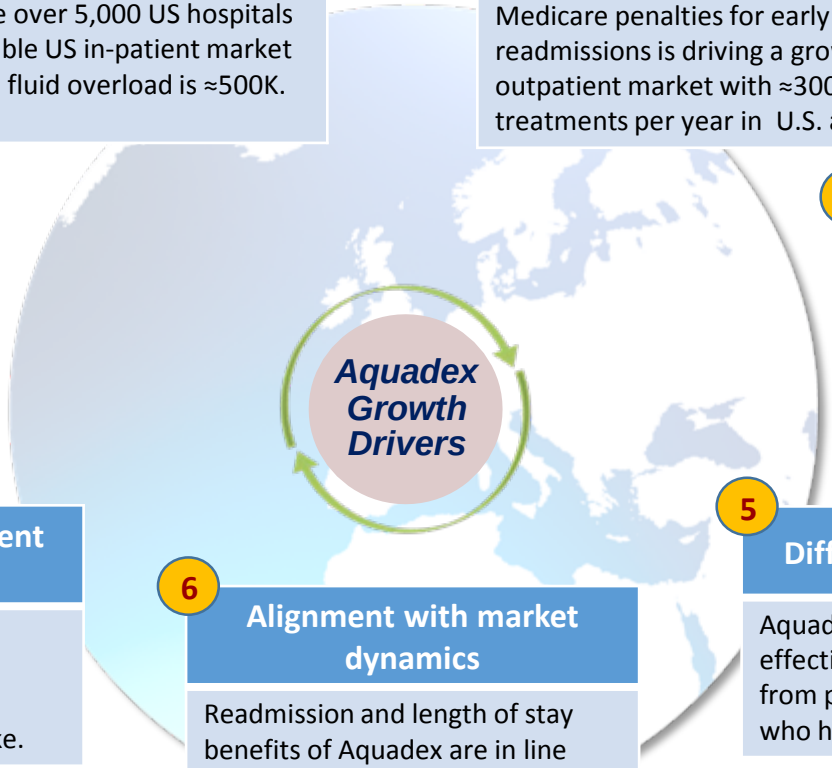
Hired a new Chief Commercial Officer with extensive experience in building commercial organizations

In September 2017, increased our US direct sales force from 4 to 10 sales reps

Focused our strategy on key accounts and account penetration

chf solutions

Growth Opportunities



2 Underpenetrated in-patient market

There are over 5,000 US hospitals Addressable US in-patient market size from fluid overload is ≈500K.

3 Untouched outpatient market

Medicare penalties for early readmissions is driving a growing outpatient market with ≈300K treatments per year in U.S. alone.

1 Established customer base

Opportunity to expand utilization in current base of over 300 US hospital customers who currently own over 500 consoles.

4 OUS growth opportunity

OUS market largely untapped to-date, offering long-term growth potential.

7 Dedicated reimbursement opportunity

Producing clinical data or assimilating existing data can achieve dedicated outpatient codes and drive market uptake.

5 Differentiated technology

Aquadex safely, predictably, and effectively removes excess fluid from patients with fluid overload who have failed diuretic therapy

6 Alignment with market dynamics

Readmission and length of stay benefits of Aquadex are in line with the market shift toward value-based technology

chf solutions

Executive Leadership Team

Megan Brandt
Senior VP Operations

- 15 Years medical device/pharma experience
- Veteran regulatory & quality professional with provide track record
- B.S. in Biochemistry & Microbiology

Jim Breidenstein
Chief Commercial Officer

- 15 years Executive Leadership (President/COO/GM) Experience
- Commercial and Operations Sr Level Leadership
- Paradigm changing technology development - Baxter, Kyphon, Neuronetics, CSI.

Claudia Napal Drayton
Chief Financial Officer

- 15 year finance career with Medtronic in United States and Europe
- 20+ years finance/accounting experience
- CPA, MBA Finance and Strategy University of Minnesota

David Lerner
Senior VP R&D

- 25+ years of medical device development experience
- Founder of several vascular diagnostic device firms
- Graduate degrees in Medical Physics and Technology Management

Sandra Eayrs
VP Human Resources

- 20 years experience in human resources with medical device experience with Boston Scientific and St. Jude Medical
- B.A. degree in Business Administration from the University of Wisconsin

Gordon Weber
VP General Counsel

- 19 year legal career, 6 in medical devices, 13 in corporate law
- 12 years finance/accounting experience
- B.A. in Accounting, Valedictorian of William Mitchell College of Law class of 1997

Board of Directors

John Erb
Chief Executive Officer, Chairman

- 40+ years experience in medical devices
- CE0 of 4 med-tech start-up companies
- Chairman of 3 public boards
- BA in Business Administration from California State University, Fullerton

Warren Watson
Non-Executive Member

- 35+ years of medical device experience
- 33 years of experience at Medtronic in CRM, HF, Cardiac Ablation, and Cardiology
- Undergraduate and graduate degrees in Engineering from the University of MN

Matthew Likens
Non-Executive Member

- President and CEO of Ulthera, Inc. from 2006 to 2016
- President of GMP Wireless Medicine from 2001 to 2006
- Baxter Healthcare Corporation from 1978 to 2001, President of Baxter's Renal U.S.
- B.B.A. in Marketing, Kent State University

Jon Salveson
Non-Executive Member

- Investment Banking and Chairman of the Healthcare Investment Banking Group at Piper Jaffray, focus on the medical device industry
- B.A. in Chemistry from St. Olaf College and an M.M.M. in Finance from the Kellogg Graduate School of Management at Northwestern University

Greg Waller
Non-Executive Member

- 40+ years of financial management experience
- Current and past Board member for multiple medical device companies
- 30 years experience as CFO
- MBA in Accounting from California State University at Fullerton

Steve Brandt
Non-Executive Member

- 35+ years of experience in medical devices.
- VP, Global Sales and Marketing at Thoratec, 2004 to 2015
- VP Sales & Marketing, CHF Solutions 2002 to 2004
- VP of Global Marketing, Cardiovascular Surgery Division for St. Jude Medical, 2000 to 2002
- B.S. from Franklin Pierce College

chf solutions™

(NASDAQ: CHFS)

FOR MORE INFORMATION

Claudia Napal Drayton
Chief Financial Officer
CHF Solutions Inc.
T: +1-952-345-4205

-or-

Bret Shapiro
Managing Partner
CORE IR
516 222 2560
brets@coreir.com

Investor Relations:
CHF Solutions, Inc.
ir@chf-solutions.com