



Corporate Presentation

(NASDAQ: CHFS)

May 16, 2018



Forward Looking Statement

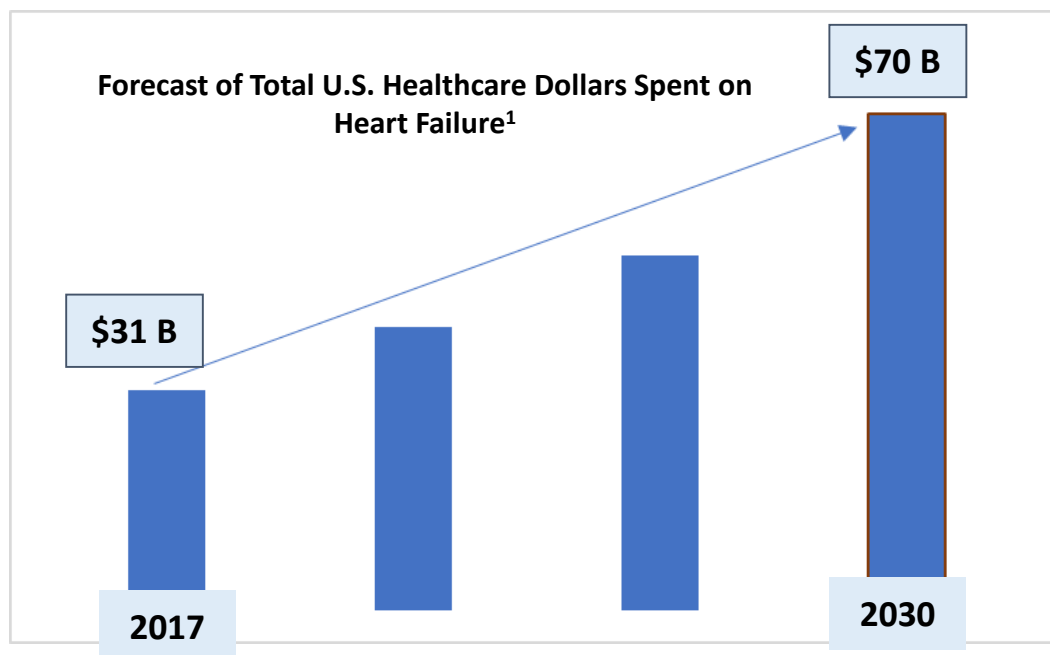
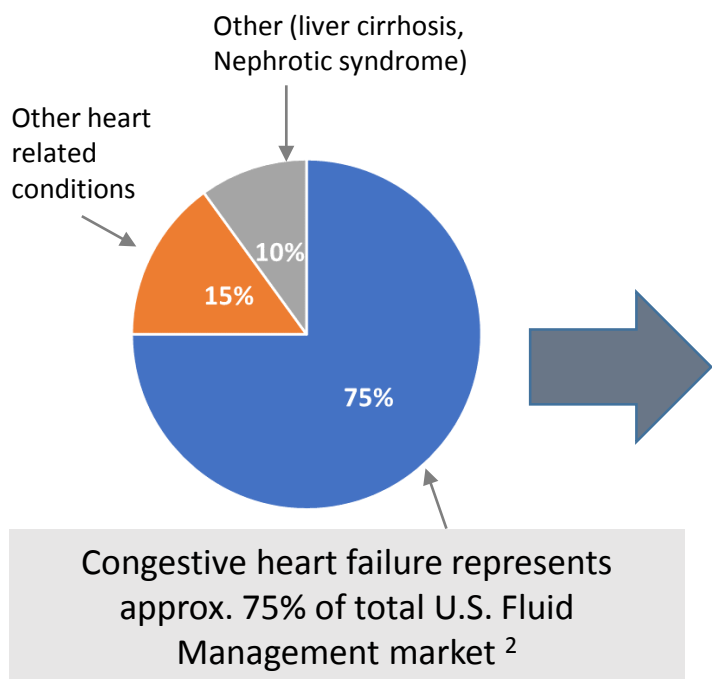
This presentation contains forward-looking statements. All forward-looking statements are management's present expectations of future events and are subject to a number of risks and uncertainties. Various factors could cause actual results to differ materially from these statements including our ability 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, 2017. 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.

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Fluid Management Market Size is Large and Growing

Congestive Heart Failure represents the largest segment of the fluid management market – and is the company's primary target



Fluid Overload in Heart Failure is a significant burden on the U.S. Healthcare System

1. Circ Heart Fail. 2013 May
2. McKinsey study internal document 2012

Fluid Overload in Heart Failure Patients is Overwhelming

5.7M¹

- U.S. patients with HF and expected to rise to 8M patients by 2030

1 M²

- Annual U.S. heart failure hospitalizations
- Congestion (fluid overload) = primary cause

90%³

- Heart failure hospitalizations are due to fluid overload

^[1] Savarese G, Lund L, Card Fail Rev. 2017; 3(1): 7-11. ^[2] Gheorghiade M, et al. J Am Coll Cardiol. 2013;61(4):391-403. ^[3] Costanzo MR, et al. J Am Coll Cardiol. 2017;69(19):2428-2445.

Diuretics are the Standard of Care, but Fail to Provide Optimal Outcomes in Many Patients

- 40% of patients demonstrate **diuretic resistance**¹ ("failure") and 68% show **sub-optimal response**¹
- 68% of HF patients are discharged from the hospital with residual excess fluid²
 - Worsening heart failure with **increased mortality** after discharge
 - Insufficient symptom relief, such as **persistent congestion**
 - Increase in **re-hospitalization** rates
 - Risk of **electrolyte imbalance** (i.e. low magnesium and low potassium)



1. Testani, Circ Heart Failure, 2016;9:e002370

2. Costanzo MR, et al., J Am Coll Cardiol., 2017; 69: 2428-45

90% of all 30-Day Readmissions Due to Heart Failure

In 2012 the Affordable Care Act instituted the Hospital Readmission Reduction Program

- **Requirement:** CMS to reduce payments to hospitals with excess readmissions
- **Penalty:** hospitals can lose $\leq 3\%$ of Medicare reimbursement on all admissions
- **2017 Update** from Journal American Medical Association (JAMA):
 - **Decrease in heart failure related readmissions but increase in 30-day and 1 year mortality rates**

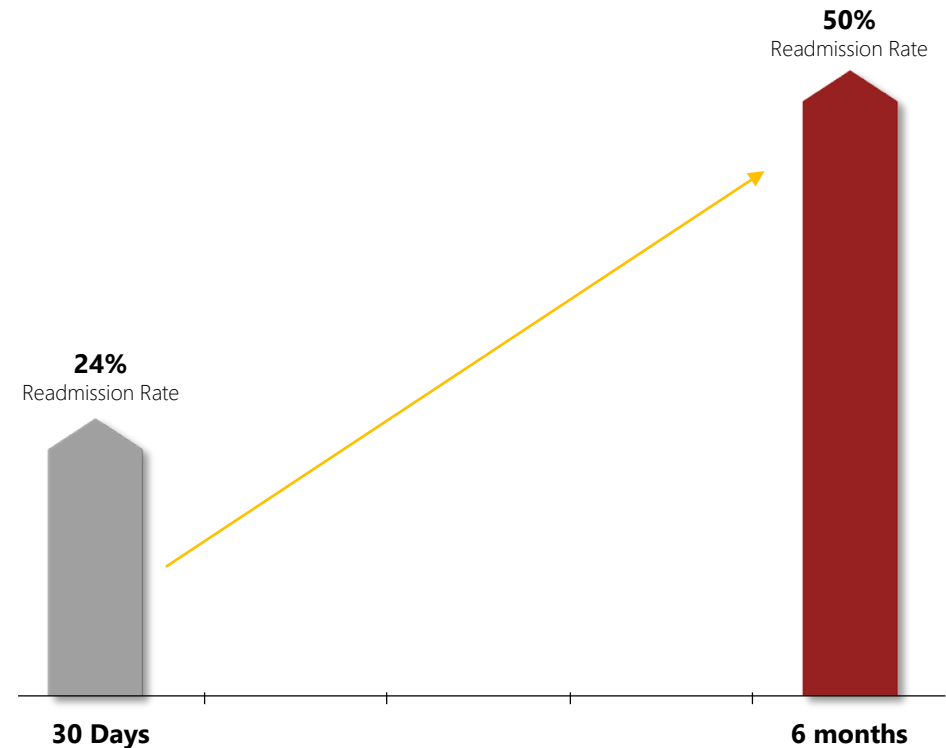


[†]Readmissions Reduction Program (HRRP). Centers for Medicare & Medicaid Services website. Updated April 18, 2016. Accessed May 25, 2016.
Journal of the American Medical Association (JAMA), November 2017

Fluid Overload in HF Patients is a Recurrent Problem

Recurrent fluid overload in heart failure is associated with worse outcomes independent of age and renal function

- 24% of patients are readmitted within 30 days of hospital release
- 50% of patients are readmitted within 6 months of hospital discharge
- Adds to the economic cost burden



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

Aquadex® FlexFlow System

A Solution to this Unmet Clinical Need

- 40% more fluid removal than conventional diuretic drug therapy over the same period of time ¹
- Restores fluid/electrolyte balance [by removing fluid and sodium]
- 53% reduction in the risk of rehospitalization than those treated solely with diuretics at 90 days²
- Fewer re-hospitalization days due to cardiovascular event ³



1. Bart BA, et. al., *Am Coll Cardiol.*, 2005;46:2043–6
2. Costanzo MR, et al. *J Am Coll Cardiol.* 2007 Feb 13; 49(6): 675-683.
3. Costanzo MR, et. al., *J Am Coll Cardiol.*, 2005;46:2047–51.

Compelling Clinical Results Demonstrate the Potential of Aquadex FlexFlow

Good Samaritan Hospital- A Single Center Experience

Independent study of 67 heart failure patients who received Aquapheresis:

- No 30-day readmits for volume overload
- Length of stay when started within 24 hours was 2.2 days, compared to national average of 5.9 days
- Readmission rate from before Aquapheresis down from 12% to 4% the year prior
- Average of 5.7 liters removed per patient

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



Clinical Evidence from Journal of American College of Cardiologists (JACC) Recently Published

Extracorporeal Ultrafiltration for Fluid Overload in Heart Failure

- Ultrafiltration can restore diuretic agent responsiveness
- Clinical benefits of ultrafiltration can persist beyond the index heart failure hospitalization up to 90 days
- Precise control of rate and amount of fluid removal
- No effect on plasma concentration of potassium and magnesium
- More effective decongestion and fewer heart failure events compared to diuretics
- Efficacy, and improved outcomes can be seen with ultrafiltration

Clinical Guidelines Support Use of Ultrafiltration



HFSA - Heart Failure Society Of America

Ultrafiltration may be considered in lieu of diuretics

ESC / HFA - European Society of Cardiology and Heart Failure Association

Venovenous isolated ultrafiltration is sometimes used to remove fluid in patients with HF, although is usually reserved for those unresponsive or resistant to diuretics

CCS - Canadian Cardiovascular Society

Patients with persistent congestion despite diuretic therapy, with or without impaired renal function, may, under experienced supervision, receive continuous venovenous ultrafiltration

1. HFSA 2010 Comprehensive Heart Failure Practice Guidelines: Lindenfeld J, et al. J Card Fail. 2010 Jun; 16(6): 475 – 539.
2. ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012: McMurray JJ, et al. Eur Heart J. 2012 Jul; 33(14): 1787 – 1847.
3. 2012 Canadian Cardiovascular Society Heart Failure Management Guidelines Update: McKelvie RS, et al. Can J Cardiol. 2013 Feb; 29(2): 168 – 181.

Aquadex Business Overview

- Aquadex therapy, a form of ultrafiltration to reduce fluid overload in patients, when diuretics fail
- Designed to be used by Cardiologists early in the treatment protocol
- Acquired from Baxter in August 2016
- FDA 510(k) market cleared; sold internationally with the CE mark
- Installed base of 500+ consoles, in over 300 US hospitals and successfully used in over 60k patients



Aquadex Product Overview

Aquadex Console



Blood Circuit Set



Dual Lumen venous catheter



The Value and Utility Advantages of Aquadex FlexFlow are Compelling

- **Safe, effective, and clinically proven** to remove excess salt and water from the body
- Rapid and predictable rate of fluid removal
- Efficient patient to nurse workflow
- Customizable therapy plan based on provider's clinical goals for their patient

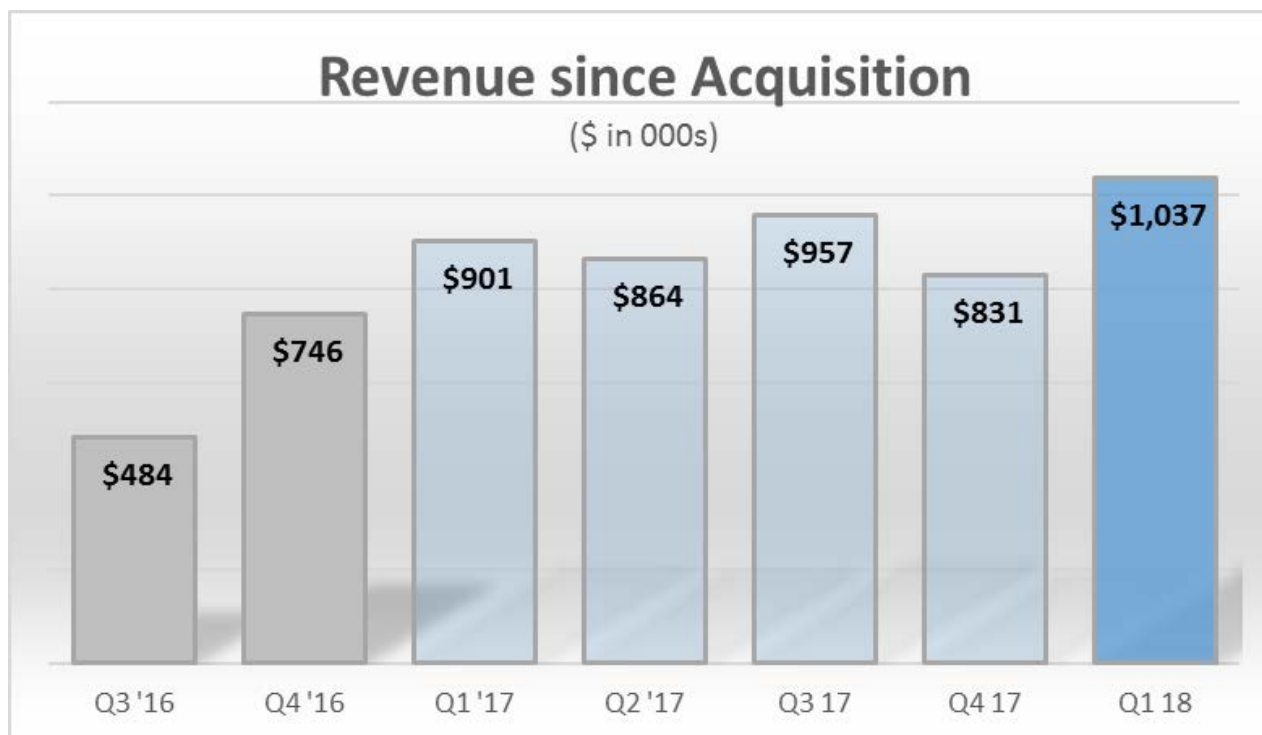


Recent Developments Highlight the Company's Successes in Executing Commercial Strategy

- Achieved double digit revenue growth year over year for the past 4 quarters
- Expanded the U.S. commercial team to 10 sales territories, added 2 sales directors, 4 field clinical specialists
- Hired seasoned VP of Marketing and recruited top marketing talent
- Distribution commenced in United Kingdom, Italy, Singapore and Hong Kong; recently signed distribution agreement for Spain
- Current number of customers continues to increase (currently at 171)
- Transitioned Aquadex manufacturing from Baxter to in-house operations



Revenue Performance



Since completing the acquisition of Aquadex in August 2016, we have focused on executing our strategy and on growing revenue.

Key Growth Opportunities Exist

Aquadex Growth Drivers

- 1 Established Customer Base**
Opportunity to expand utilization within our current customer base of 300+ hospitals
- 2 Underpenetrated Inpatient Market**
900,000 annual U.S. HF admissions for fluid overload, 68% achieving sub-optimal results with diuretics provide an inpatient opportunity of $\geq 600,000$ patients/year
- 3 Untapped Outpatient Market**
Medicare penalties for early readmissions is driving a growing outpatient market with $\approx 300,000$ treatments per year in U.S. alone
- 4 OUS Growth Opportunity**
OUS market largely untapped to date, offering long-term growth potential
- 5 Multiple Clinical Applications**
Aquadex removes excess fluid in patients with a variety of fluid management issues
- 6 Alignment with Market Dynamics**
Readmission rates and length of stay benefits of Aquadex are in line with the market shift toward value-based technology
- 7 Dedicated Reimbursement Codes**
Producing clinical data and assimilating existing data can achieve dedicated outpatient codes and drive market uptake



For More Information

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