



# impedimed®

**Investor Presentation**

ASX:IPD June 2019



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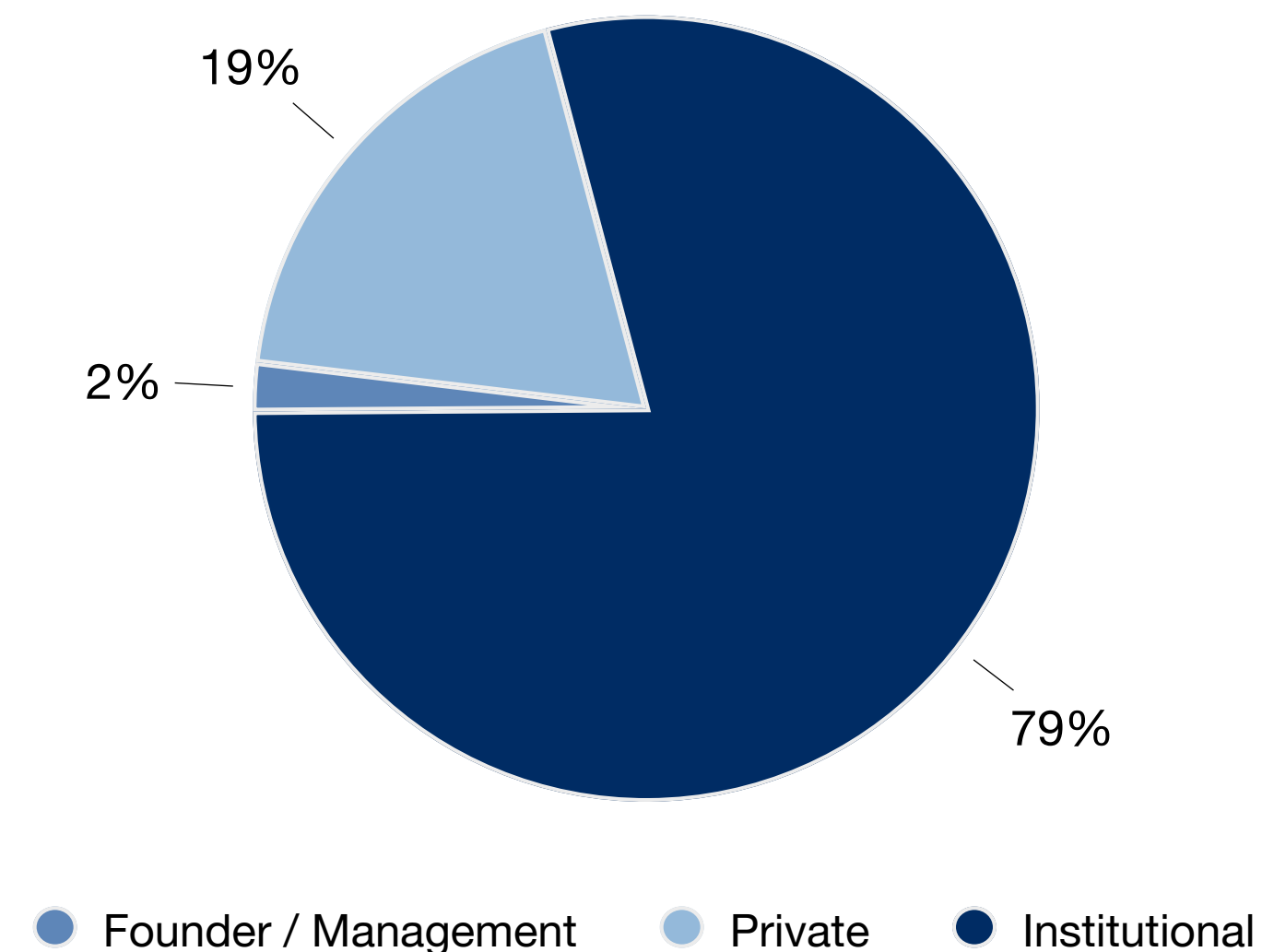
# Corporate Overview



ImpediMed develops, manufactures and sells bioimpedance spectroscopy devices with a focus on the early detection of lymphoedema and heart failure

- ASX listed (October 2007)
- Operations in US (San Diego), Australia (Brisbane) and Europe (Greece) (68 total staff)
- Market capitalisation ~AU\$46M (380M shares on issue)
- Cash on hand AU\$17.1M (31 March 2019)

Share Register Breakdown



Substantial Shareholders

Allan Gray	17.0%
Paradise Investment Management	6.1%



## Investment Highlights

Highly Disruptive Technology

Proprietary Digital Health Platform  
with Robust Patent Portfolio

Large, Attractive, and Growing  
Markets

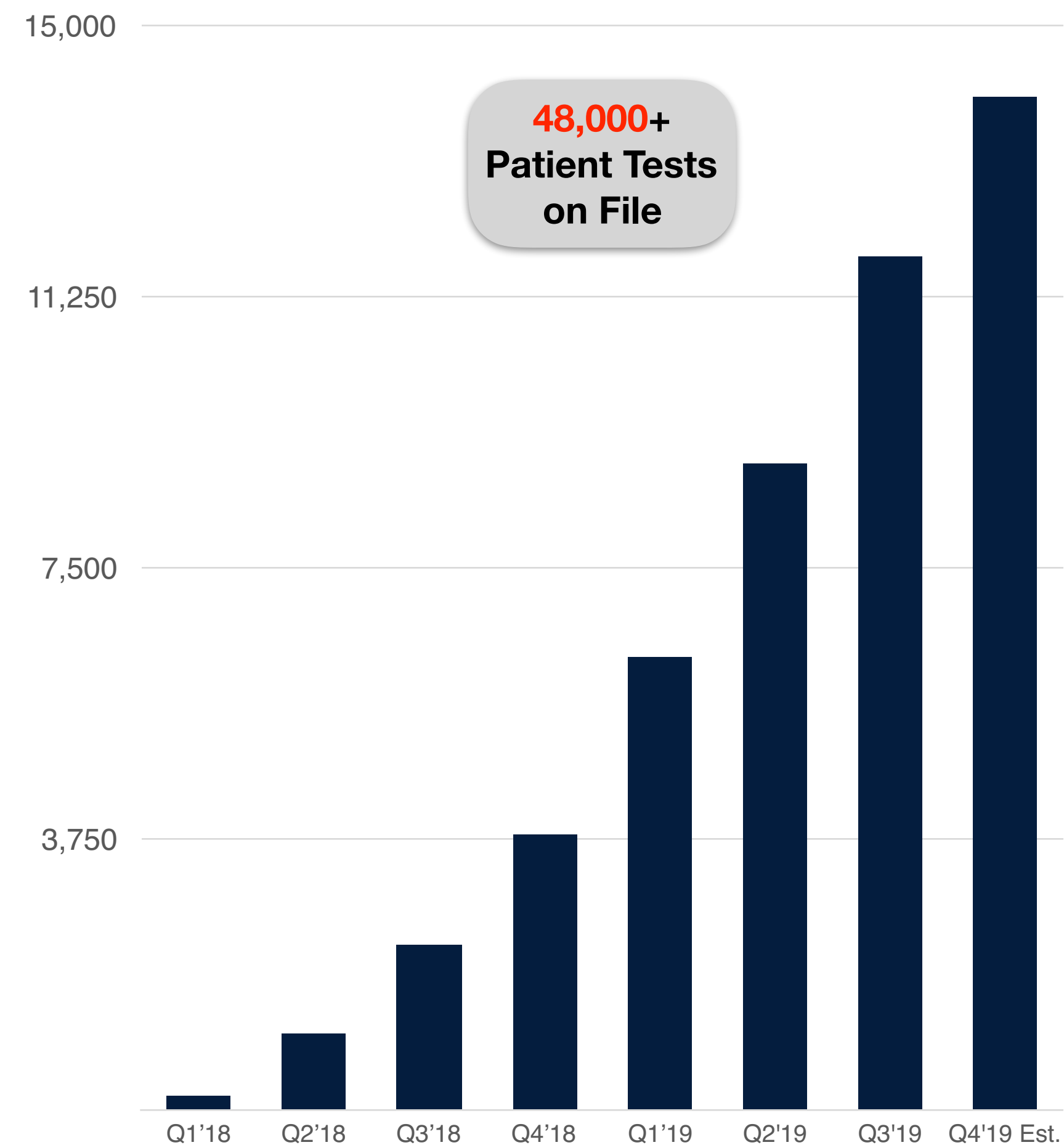
Regulatory Clearances  
FDA, CE Mark, and ARTG

Significant Body of Clinical Evidence

SaaS Model well Established with  
CRP\* of ~A\$9 million at End of FY19

Targeting 2X - 3X Increase in CRP in  
FY'20

## Technology Adoption FY by Quarter (direct sales channel)





# SaaS Business Model Now Well Established in Lymphoedema

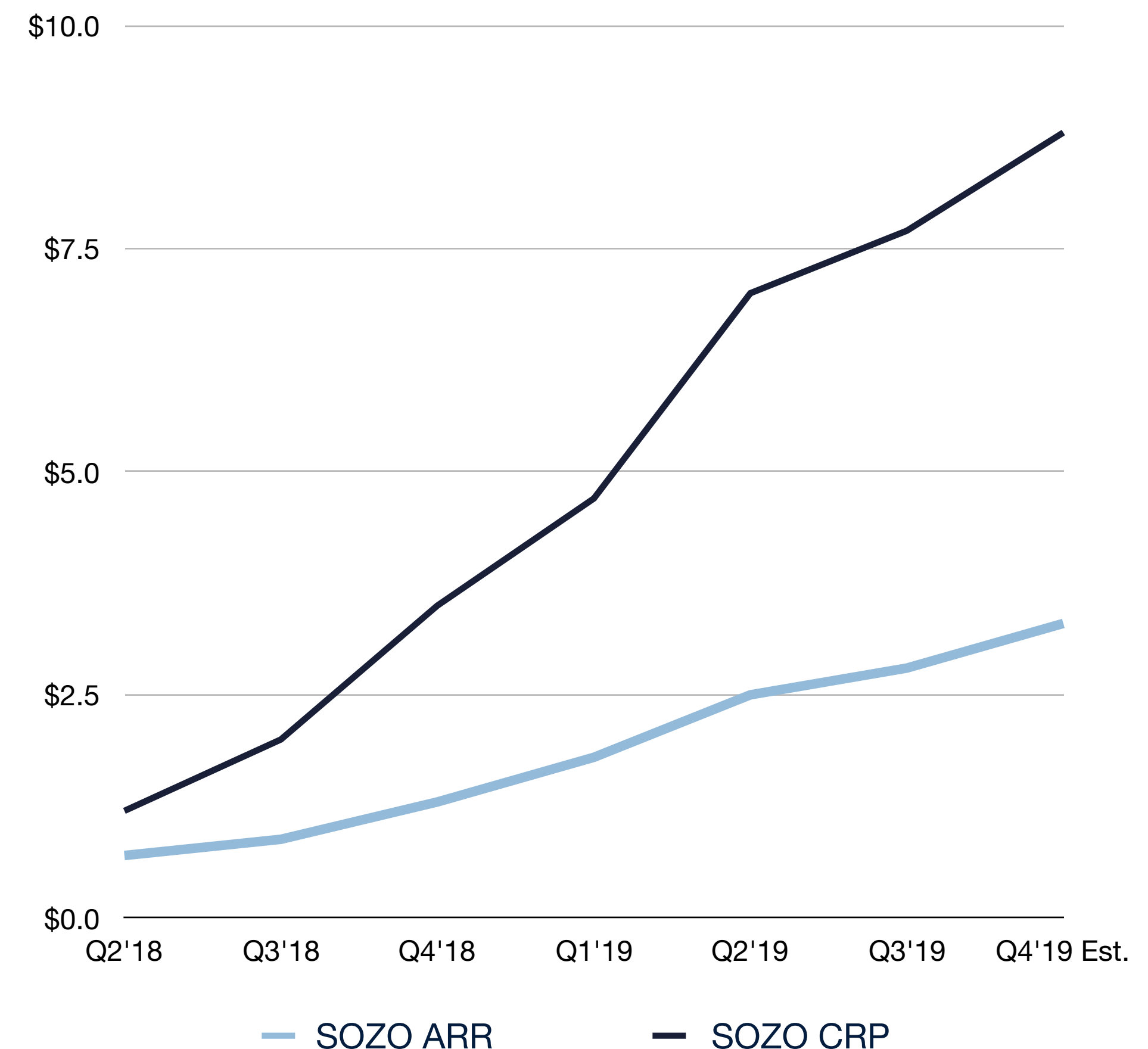
## Software as a Service (SaaS) Business Model

- SOZO devices sold to hospitals and clinics
- SaaS monthly subscription contract per device for up to 3 years
- Monthly subscription fee based on indications licensed and estimated case load per device

## Highly Scalable Business

- Cloud-based software
- Connected care
- FDA cleared for clinical and at-home monitoring

**Contracted Revenue Pipeline (CRP) and Annual Recurring Revenue (ARR) by FY Quarter (in AU\$ millions)**





# SaaS Business Model Accelerating Revenue in Lymphoedema

		FY'20 Guidance		
	Low	Midrange	High	Midrange Growth vs. FY'19
Contracted Revenue Pipeline	A\$18.0	A\$21.0	A\$24.0	~140% ↑
Annual Recurring Revenue	A\$6.0	A\$8.0	A\$10.0	~145% ↑
Reported Revenue	A\$7.0	A\$8.5	A\$10.0	~115% ↑
Gross Margin	75%	77%	79%	~13% ↑

- All figures in A\$ millions except where designated as a percentage
- FY'19 estimates are preliminary and unaudited

## Growth Drivers

- Aggressively drive National Lymphoedema Prevention Program in new key centres and build out in existing centres (increases device and subscription sales)
- Target existing key customers for expanded patient testing (drives new device and subscription sales - low acquisition costs)
- Expand indications at top cancer centres (requires additional licensing fees - low acquisition costs)
- Educational seminars increase awareness of our technology
- Significantly reduce “sale to billing” cycle time through expansion of v3.0 software
- Continued clinical and economic publications drive adoption
- Initial private payors begin payments for testing

## Growth Accelerators (Drives growth above midrange Guidance)

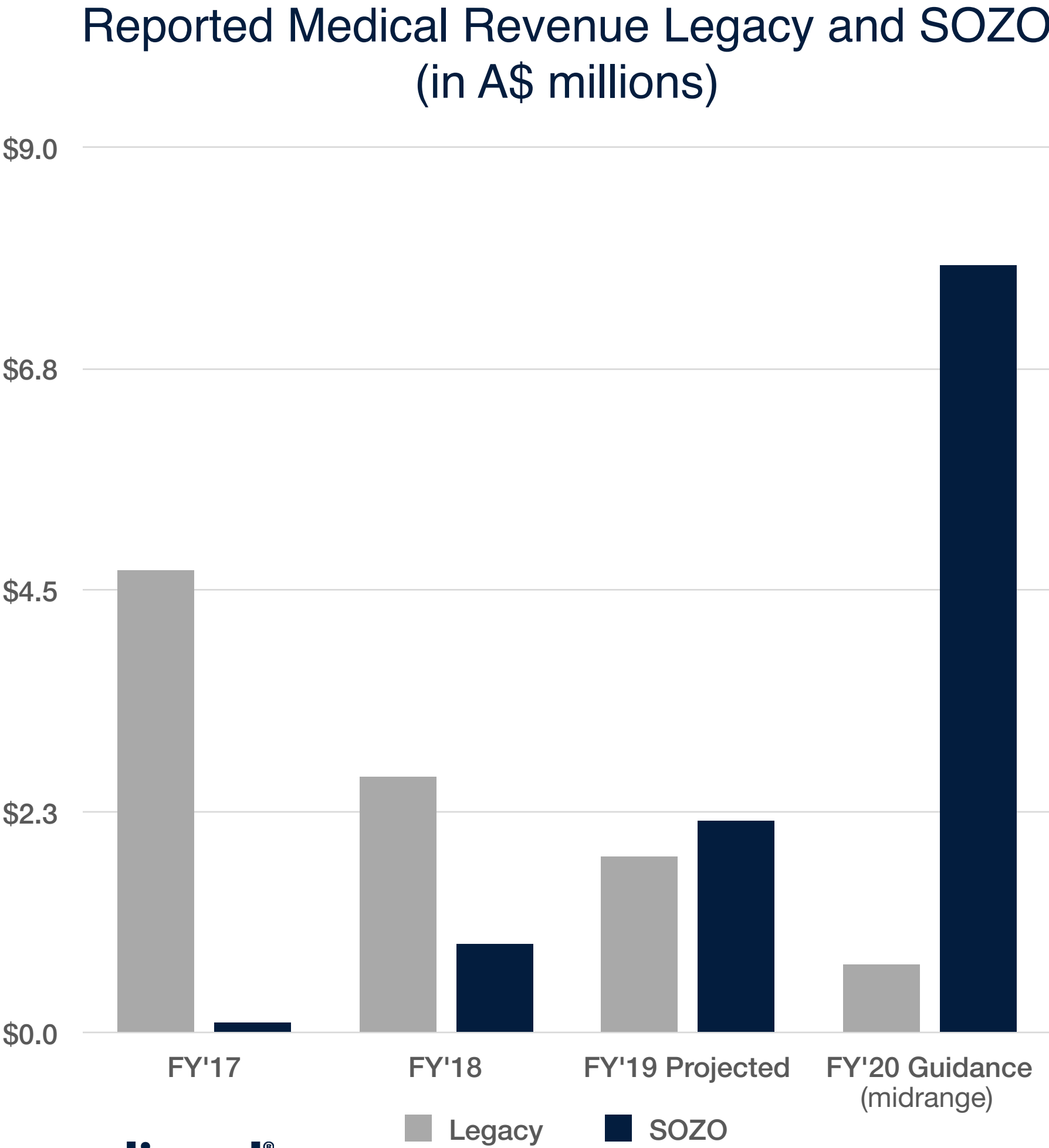
- Expand existing customers into gynaecological, melanoma, and prostate cancers (new opportunity and low acquisition costs)
- BIS incorporated into NCCN Guidelines
- Increasing numbers of private payors begin payments for testing



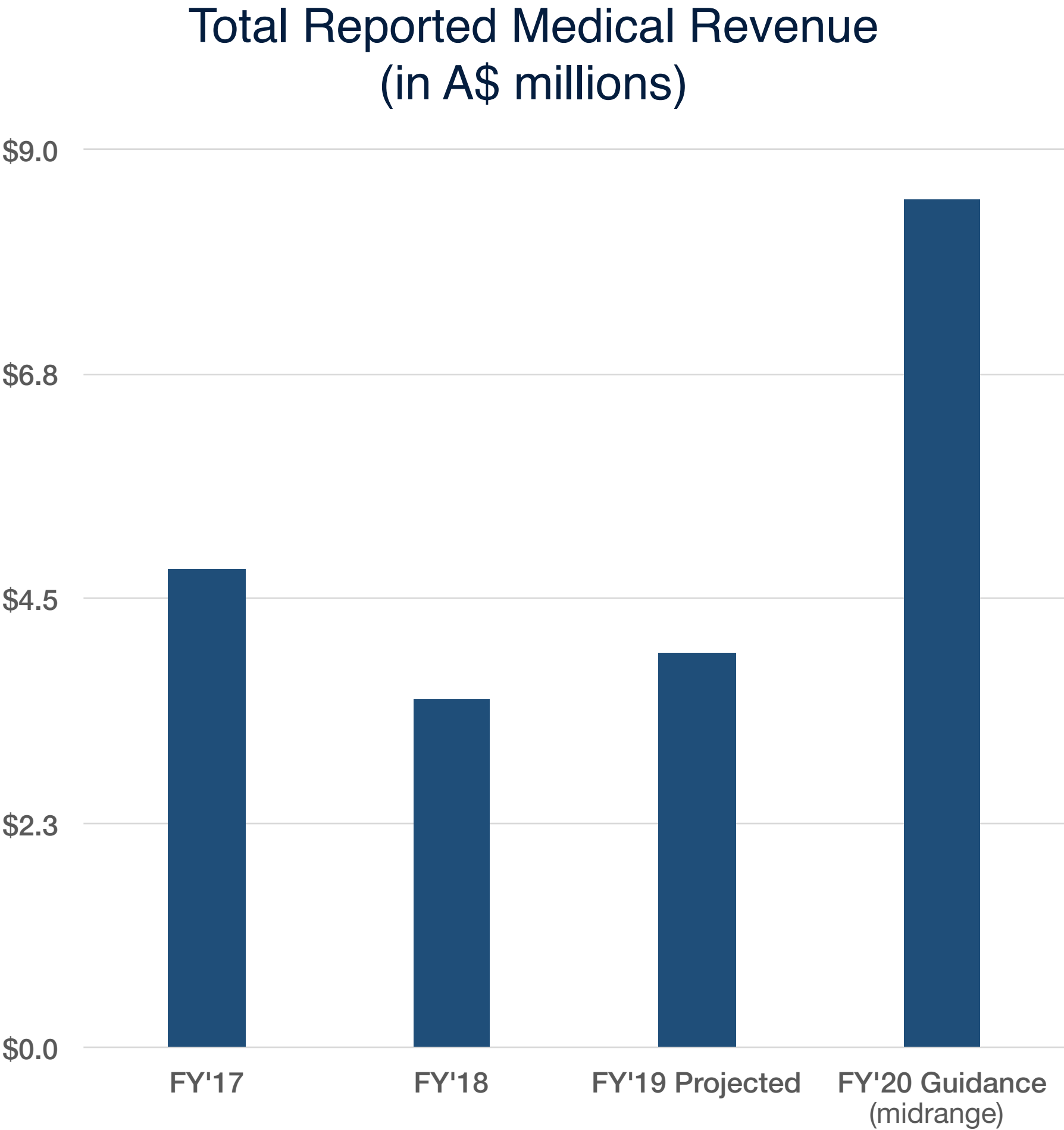
# Transition to SaaS Business Model Complete and Revenue now Accelerating

Expecting 2X - 3X Revenue Growth in FY'20

## SOZO Replaces Legacy Revenue

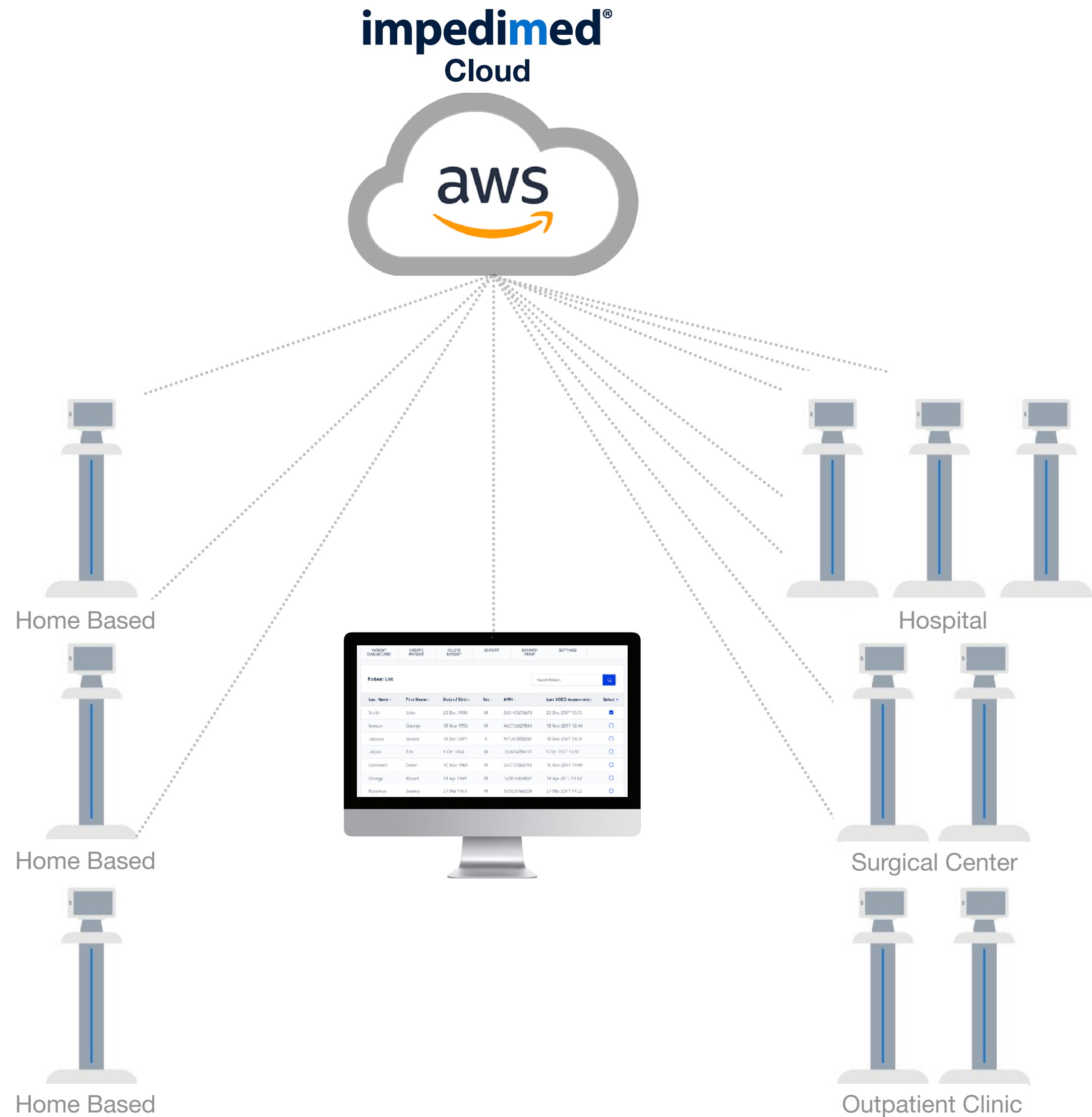


## Crossover Complete and Revenue Now Accelerating





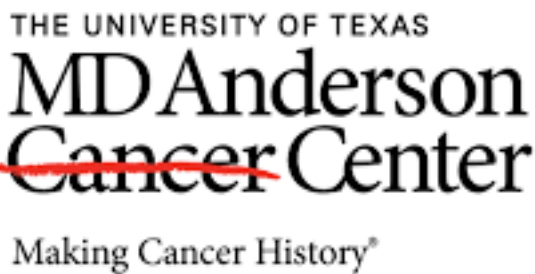
# Connected Digital Health Platform



## Connected Digital Health Platform

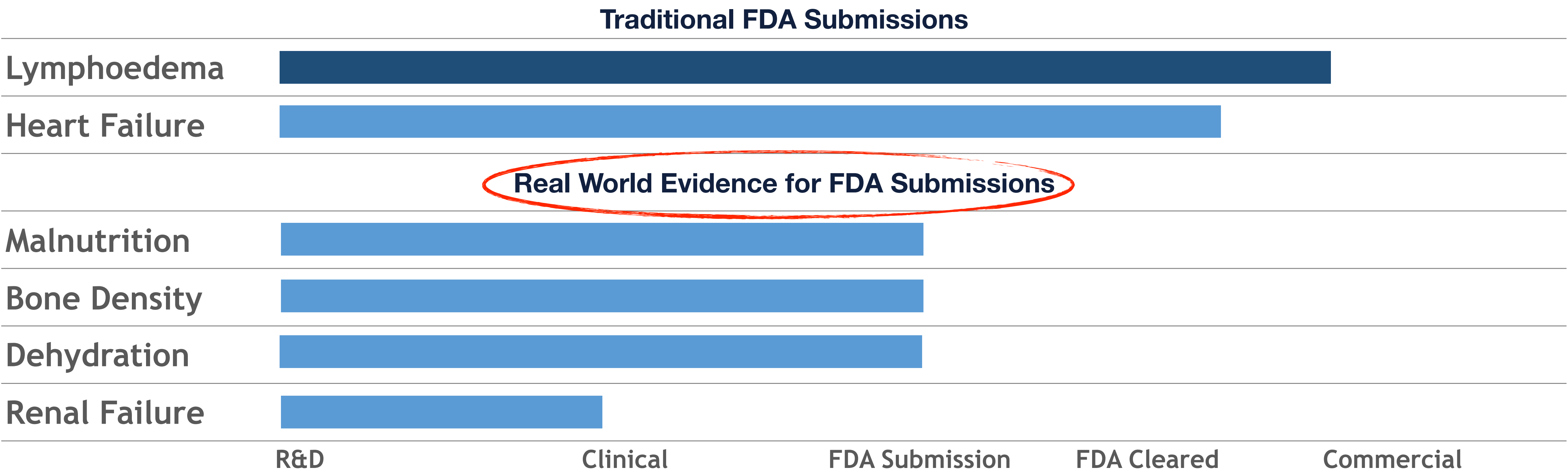
- Comprehensive patient data (Business Associate Agreement compliant)
- Access to information across the care continuum
- Manage large patient populations
- Integrates seamlessly into hospital, clinical, and home settings
- Growing database of patient measurements
- Data is already driving:
  - Increased accuracy
  - Automated protocols
  - Real world clinical data to support FDA filings

## Key Centers



# Platform Technology with Multiple Applications

## 2 Key Focus Areas – Lymphoedema and Heart Failure



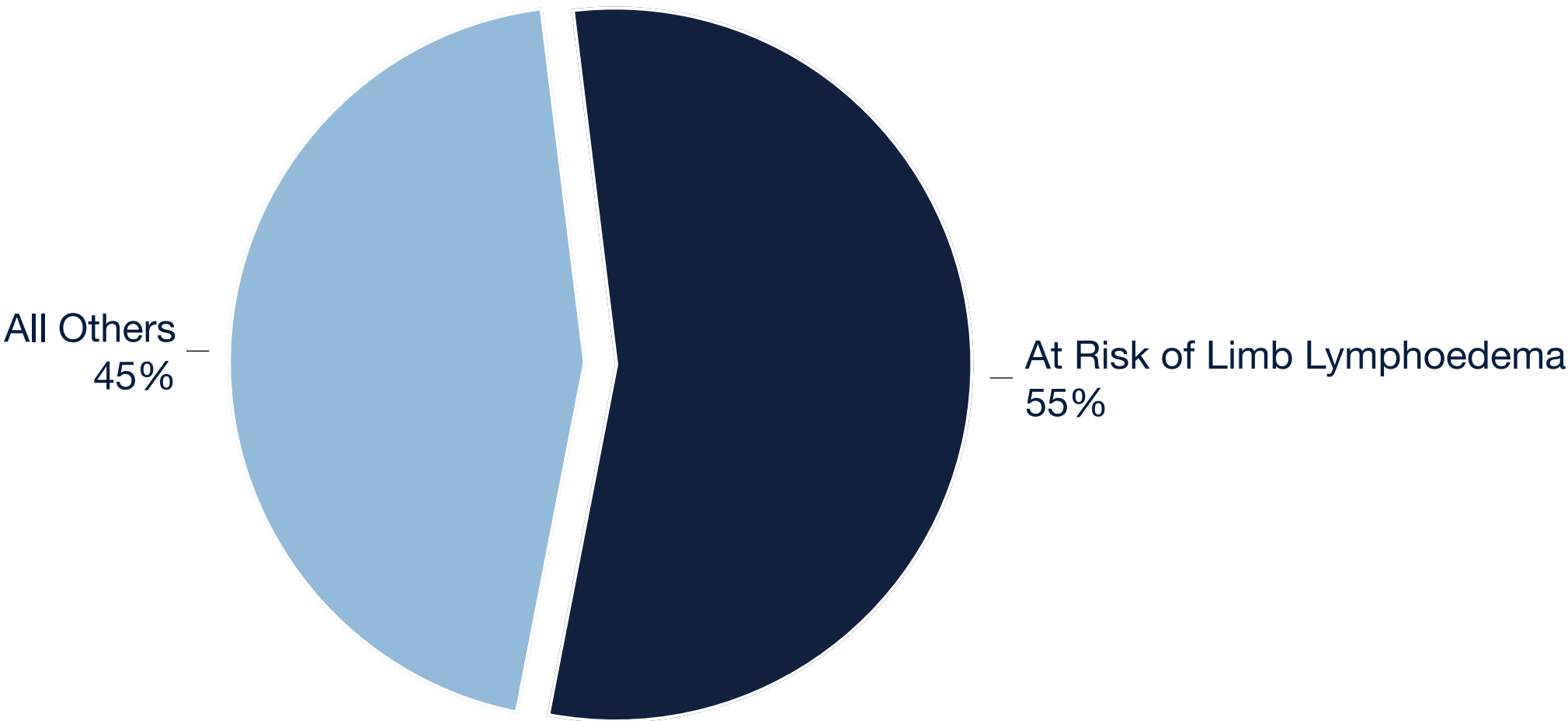
- FDA filings (malnutrition, bone, and dehydration)
- Large markets where detailed fluid and tissue analysis are critical to improving patient outcomes
- Leveraging growing patient database of real-world evidence for regulatory submissions
- Expanding our clinical utility and footprint with new indications
- Leveraging our existing connected digital health platform



# Large, Attractive and Growing Markets

FDA Clearance and CE Mark for both Indications

Newly Diagnosed Cancer Cases  
1.8 Million per Year

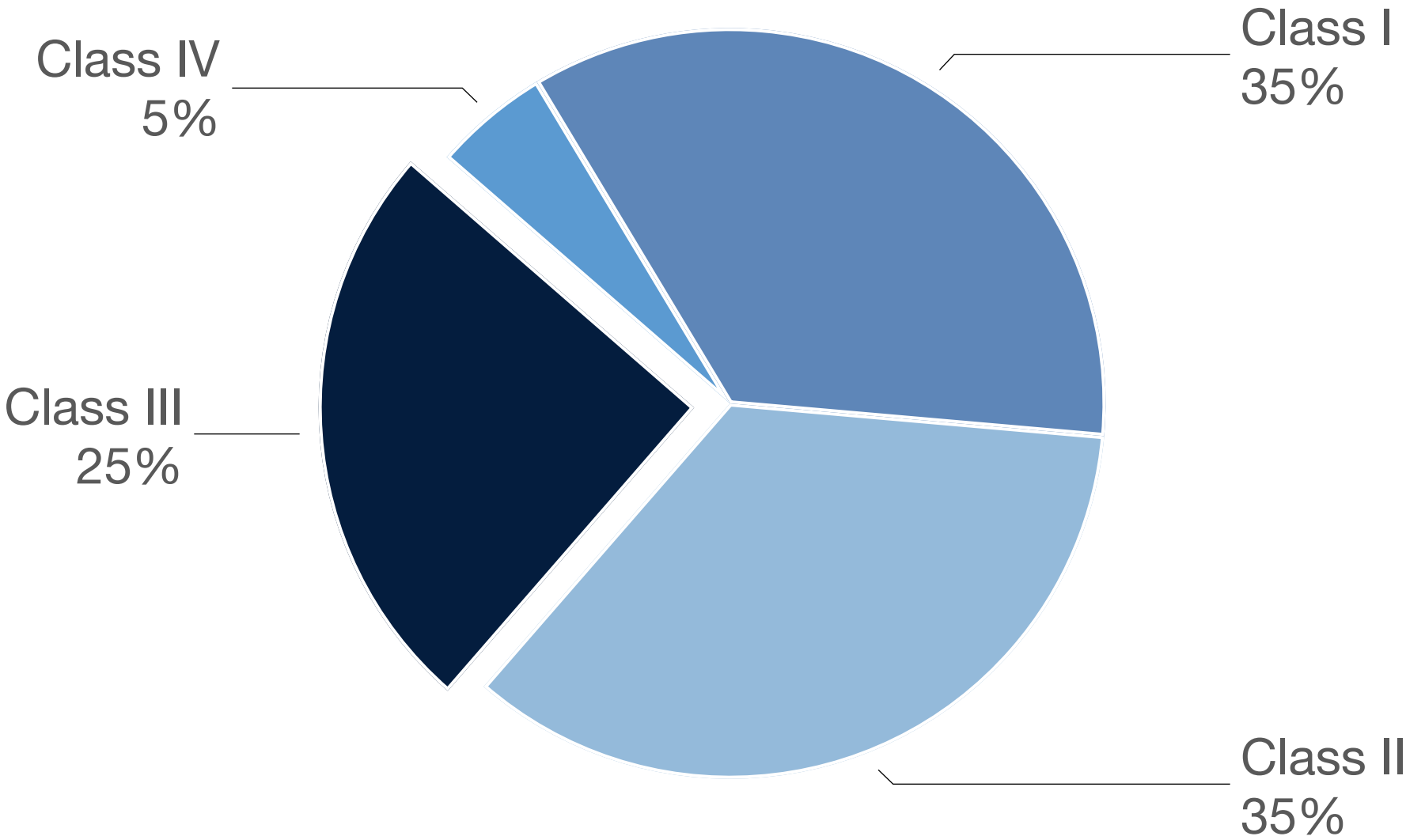


**\$2+ Billion**

Annual Addressable Market<sup>1</sup>

1. 17 tests at \$146/test

Heart Failure Patients by Classification  
6.5 Million



**\$1+ Billion**

Annual Addressable Market<sup>2</sup>

2. Assumes at-home monitoring of \$60 per month per patient for 12 months

# ImpediMed's Proprietary Technology Directly Measures Fluid in the Body

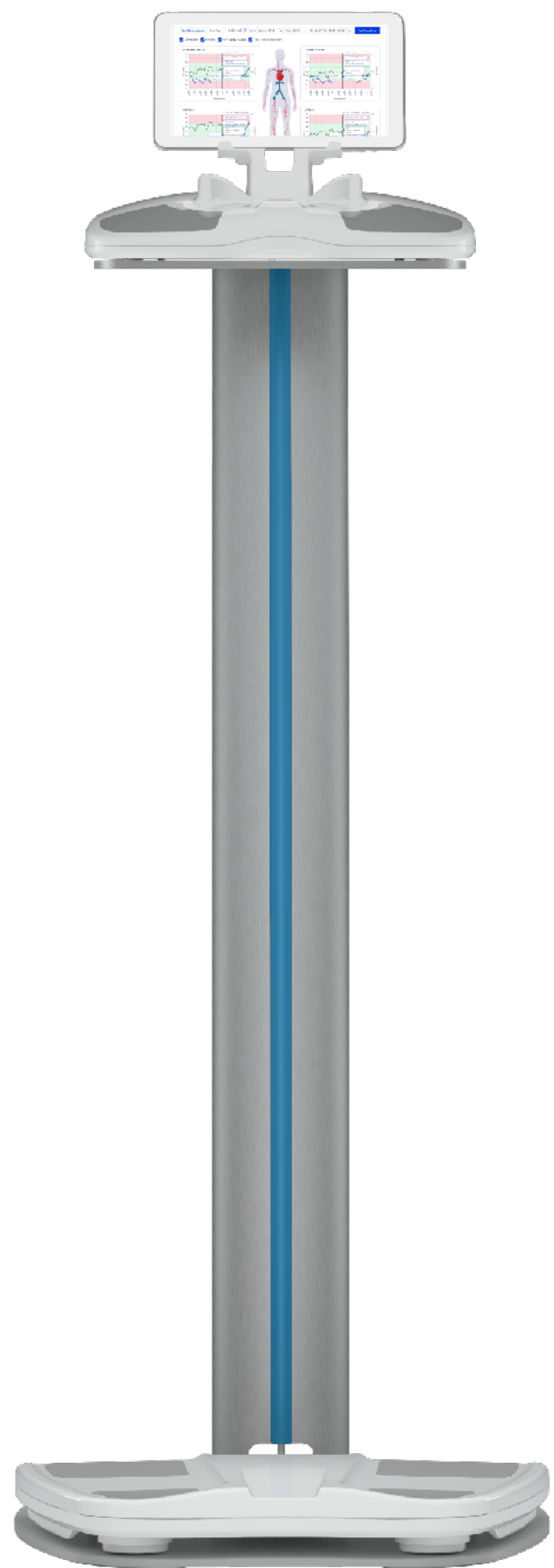
## Indirect Measure of Fluid

- Imaging
- Implantables
- Weight
- Volume

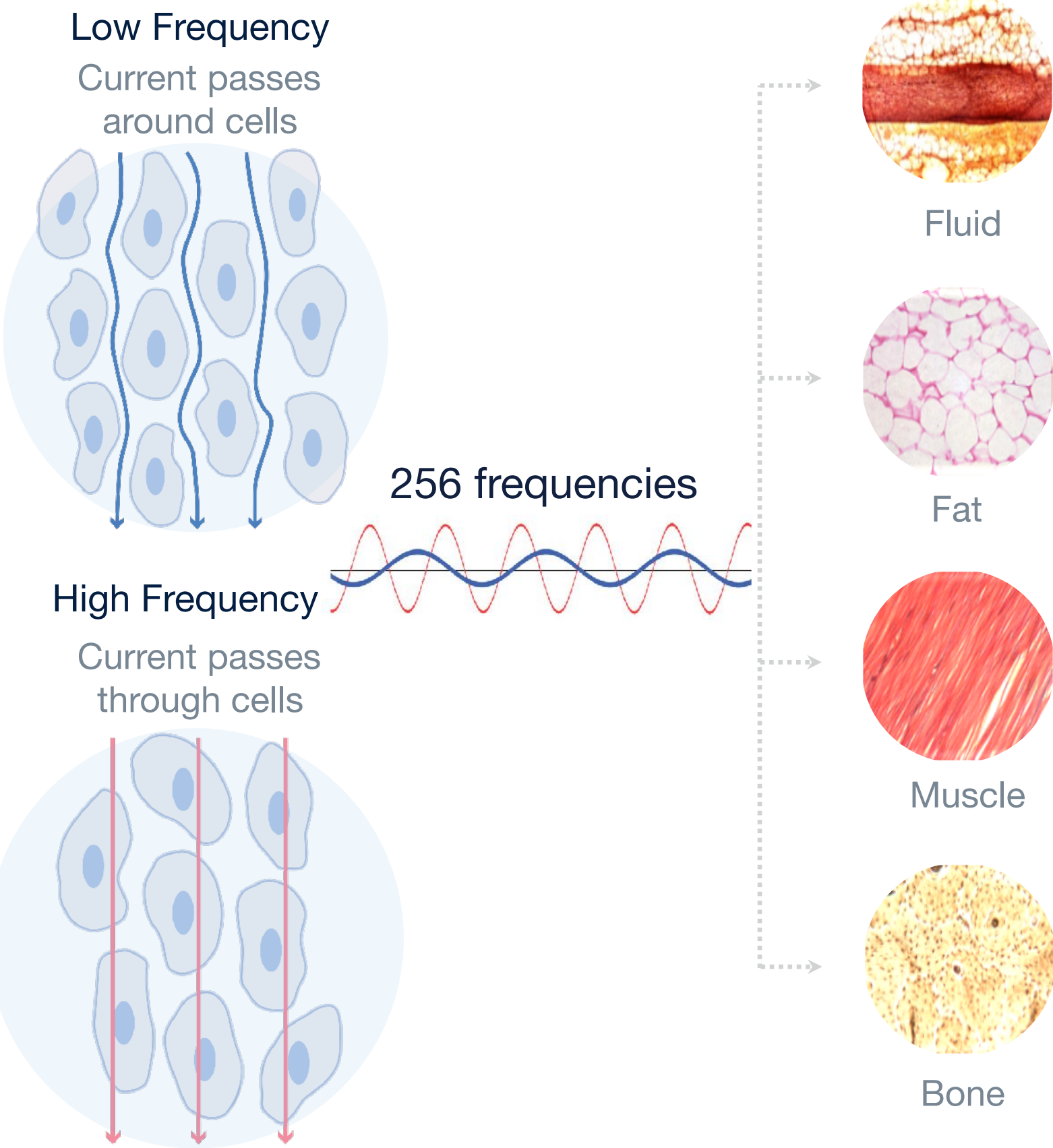


## Direct Measure of Fluid

SOZO<sup>®</sup>



### Bioimpedance Spectroscopy (BIS)





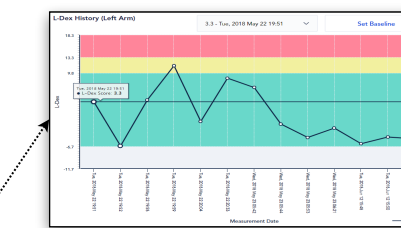


- Up to 60% of the of the human body is made up of water
- Fluid balance is critical to a healthy body
- Small variations between intracellular and extracellular fluid can have dire consequences
- Until now there has not been an easy, fast, accurate and non-invasive way for clinicians to obtain detailed fluid analysis in the human body



# SOZO - Next Generation Bioimpedance Spectroscopy Digital Health Platform

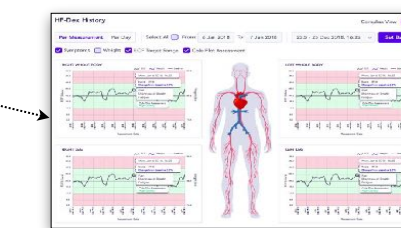
- **Sensitive** detection of small changes in body fluid:
  - Intracellular
  - Extracellular
- **Non-invasive** measurement
- **Proprietary algorithms**
- **Fast** results in less than 30 seconds
- **Accelerates** time to treatment
- **Integrates seamlessly** into hospital, clinical, and home settings



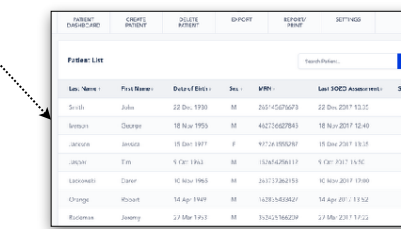
- L-Dex® for assessing subclinical unilateral Lymphoedema



- L-Dex for assessing subclinical bilateral Lymphoedema



- Heart Failure fluid monitoring



- Enterprise reports
- Patient compliance

**BIS detects medically meaningful fluid shifts as low as 36 ml (2.4 tablespoons)**

Ward, L., Is BIS ready for prime time as the gold standard measure? Journal of Lymphoedema, 2009. 4(2): p. 52-56.



## Annual Cost of Lymphoedema

Lymphoedema is a leading post-surgical complication for many cancer patients

## Reduction in Lymphoedema

Data from the PREVENT Trial, the largest randomised Lymphoedema clinical study

**~\$7 Billion**

**↓ 95%**

Based on ~1 million cancer related Lymphoedema patients treated annually

# ImpediMed is Well Positioned to Capitalise on Lymphoedema Prevention

## Old Perceptions

- Lymphoedema is an unavoidable result of cancer treatment
- If you get Lymphoedema, you're just unlucky
- It's not clear how many patients get it so it's not worth worrying about
- Don't scare your patients, they have enough to worry about

## New Realty

- 1 in 3 at-risk cancer survivors will develop Lymphoedema
- 95% reduction in Lymphoedema progression from PREVENT Trial
- 73%-100% reduction in chronic Lymphoedema from 6, real-world single-centre studies
- Academy Award winner Kathy Bates and LE&RN generating awareness for Lymphoedema
  - Successfully lobbied for Lymphoedema being placed on the Centers for Disease Controls website
  - Requested additional funding for research

## ImpediMed Leadership Position

- Extensive clinical data in Lymphoedema prevention
- Extensive clinical and commercial experience in cancer related Lymphoedema
- Well defined, patent-protected and trademarked metric (L-Dex®)
- Published patient protocols
- Published clinical guidelines
- Support of the ASBrS
- Key Opinion Leader (KOL) advocates
- Support of patient advocacy groups (LE&RN and NLN)
- Unique CPT® I reimbursement code
- **NO COMPETITION**



# SOZO FOR CANCER SURVIVORS

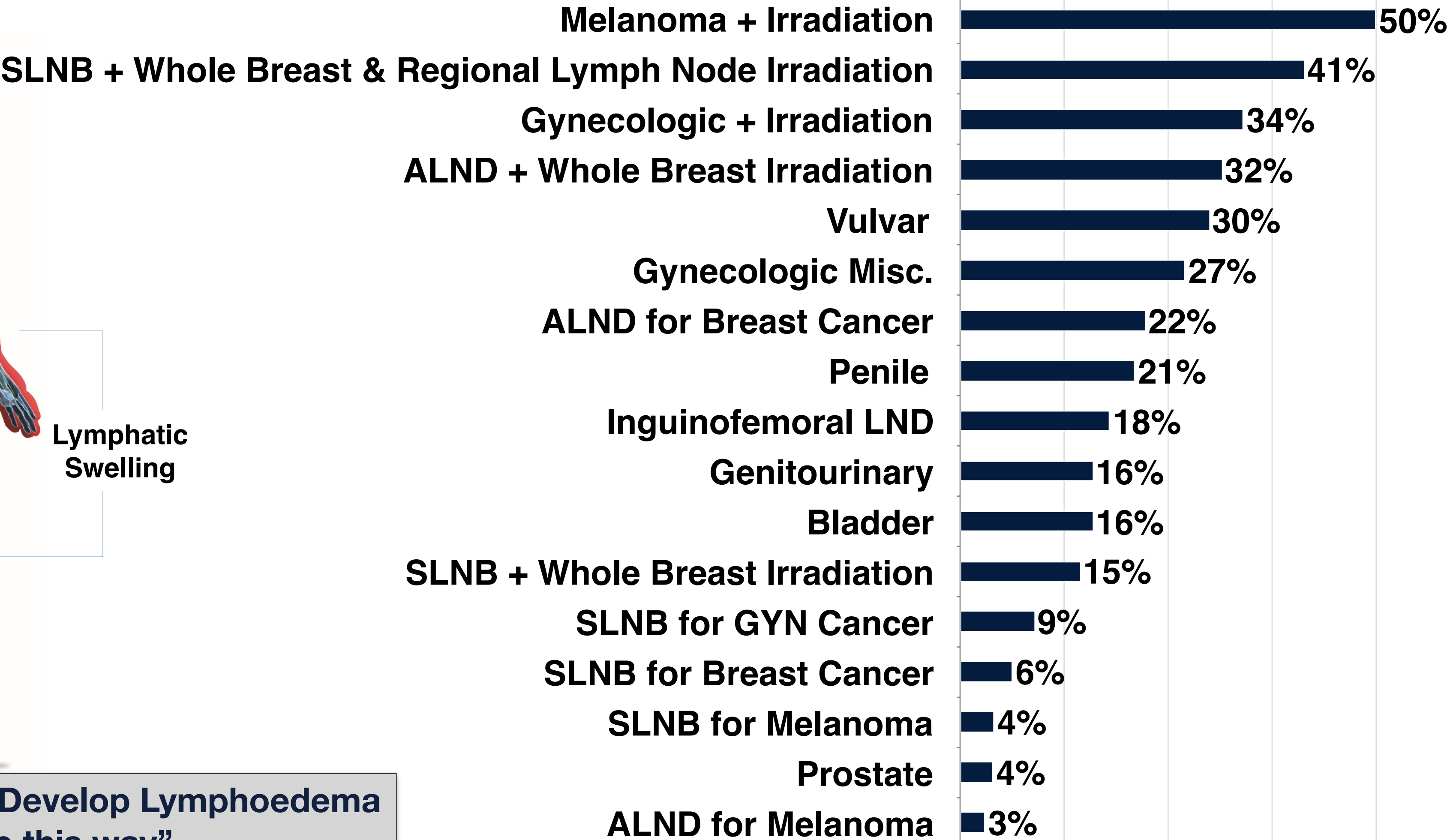
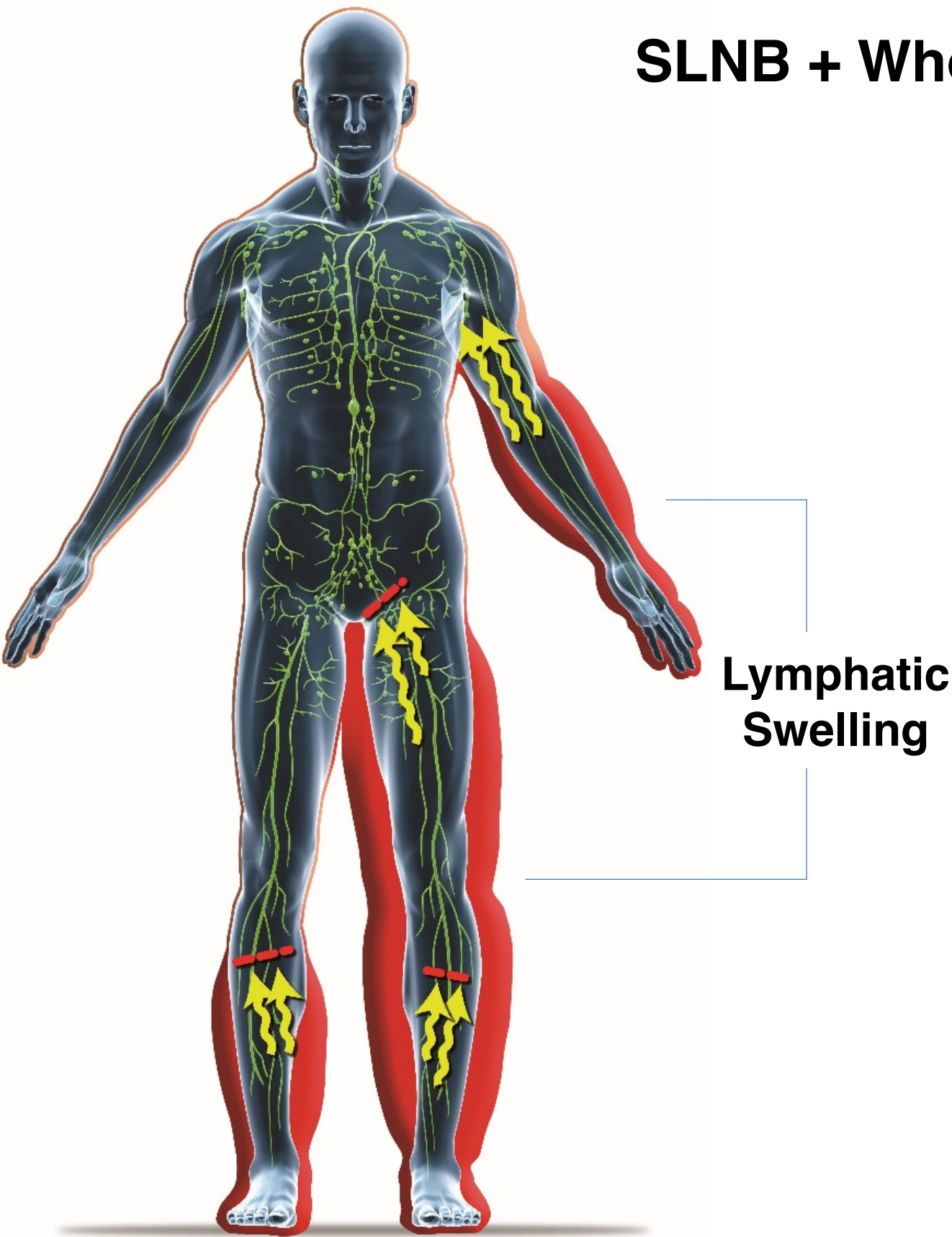
- Over 15.5 million cancer survivors in the U.S.
- 1 in 3 will develop Lymphoedema
- More than 5.5 million U.S. patients suffering from persistent cancer-related Lymphoedema
- Lymphoedema usually presents within first 36 months
- Lymphoedema is one of the most feared consequences of cancer survivorship





# Lymphoedema is a Common Consequence of Cancer Treatment

## Prevalence by Cancer and Treatment



Today, 1 in 3 Cancer Survivors will Develop Lymphoedema  
“It does not have to be this way”



# Current State of Lymphoedema Detection and Treatment





# The Future of Lymphoedema Detection and Treatment

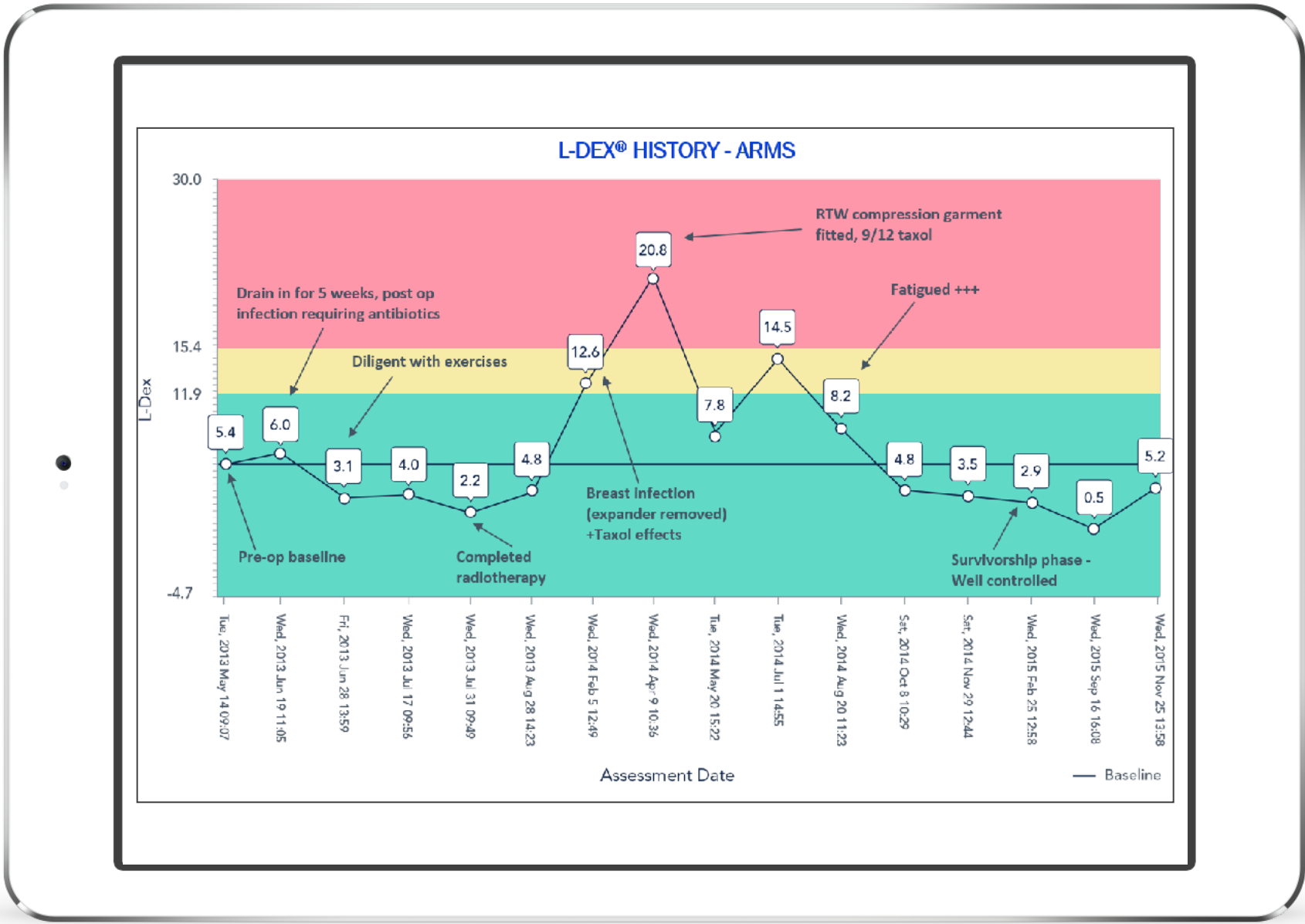


L-Dex Reduces Lymphoedema Progression by 95%

# Subclinical Detection of Lymphoedema Optimises Patient Outcomes

## Resolution of Lymphoedema based on Stage at the Time of Detection<sup>1</sup>

Lymphoedema Stage when Detected	Total Patients (N=49)	Resolved (n=40)	Chronic (n=9)
Subclinical	25	25	0
Stage 1	17	15	2
Stage 2	6	0	6
Stage 3	1	0	1



Simple and inexpensive treatment - a ready to wear compression sleeve worn for 4 weeks<sup>3</sup>

## Breast Cancer Patient<sup>2</sup>

- Surgery
- Chemotherapy
- Radiation Therapy

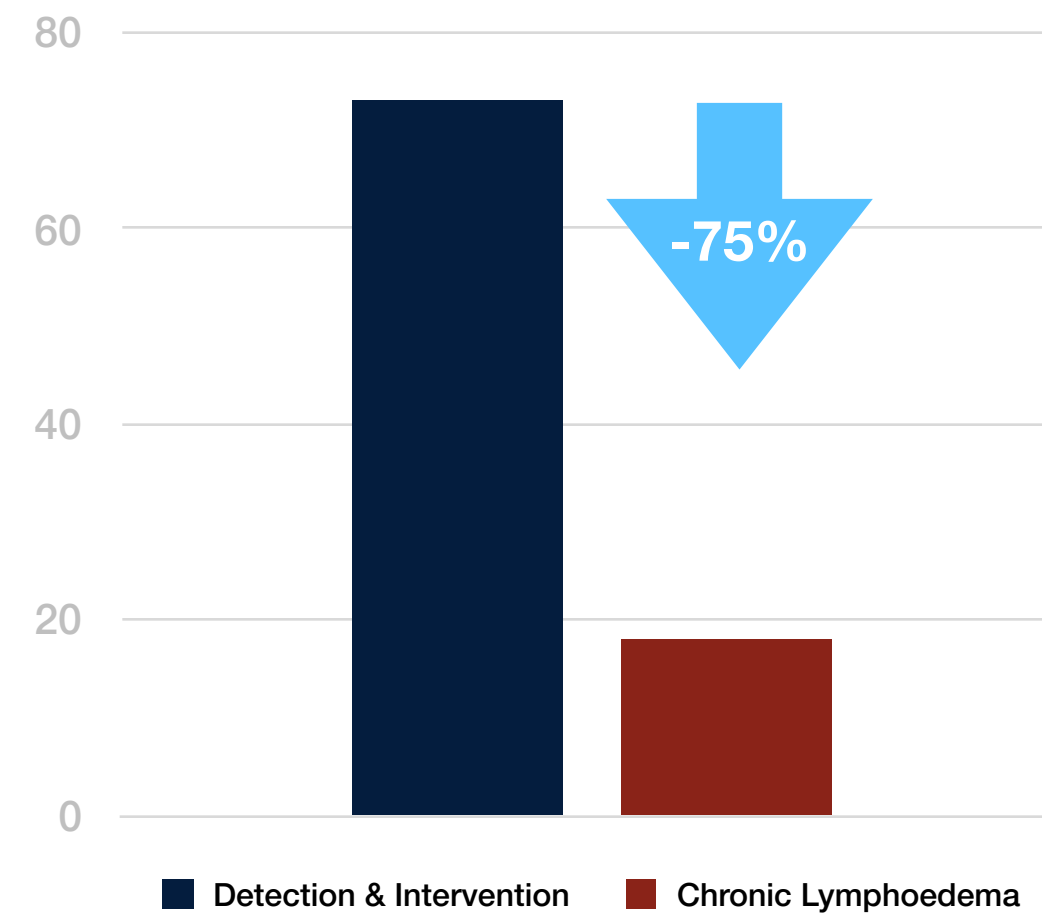
1. Kilgore, L.J., et al., *Reducing Breast Cancer-Related Lymphoedema (BCRL) Through Prospective Surveillance Monitoring Using Bioimpedance Spectroscopy (BIS) and Patient Directed Self-Interventions*. Ann Surg Oncol, 2018.  
2. Koelmeyer, L. Case presentation ALA Conference 2018.  
3. Stout Gergich, N.L., et al., *Preoperative assessment enables the early diagnosis and successful treatment of Lymphoedema*. Cancer, 2008. 112(12): p. 2809-19.



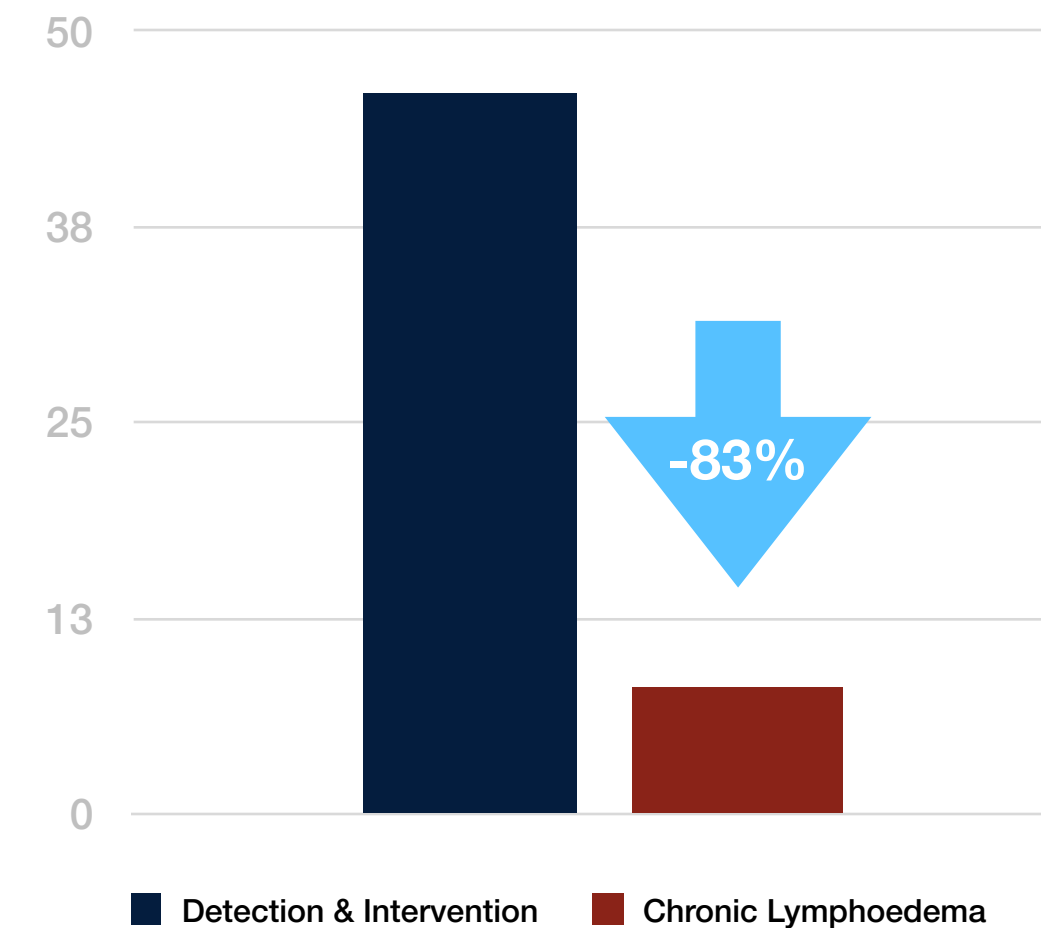
# Demonstrated Real World Outcomes

- Compelling clinical data
- Medically meaningful results
- Effectively implemented across a broad spectrum of practices - from large teaching Cancer Centres to single practitioners
- L-Dex proved effective in reducing cancer related Lymphoedema in both high and low risk patients
- To-date >140 peer reviewed Lymphoedema studies published involving >17,000 patients

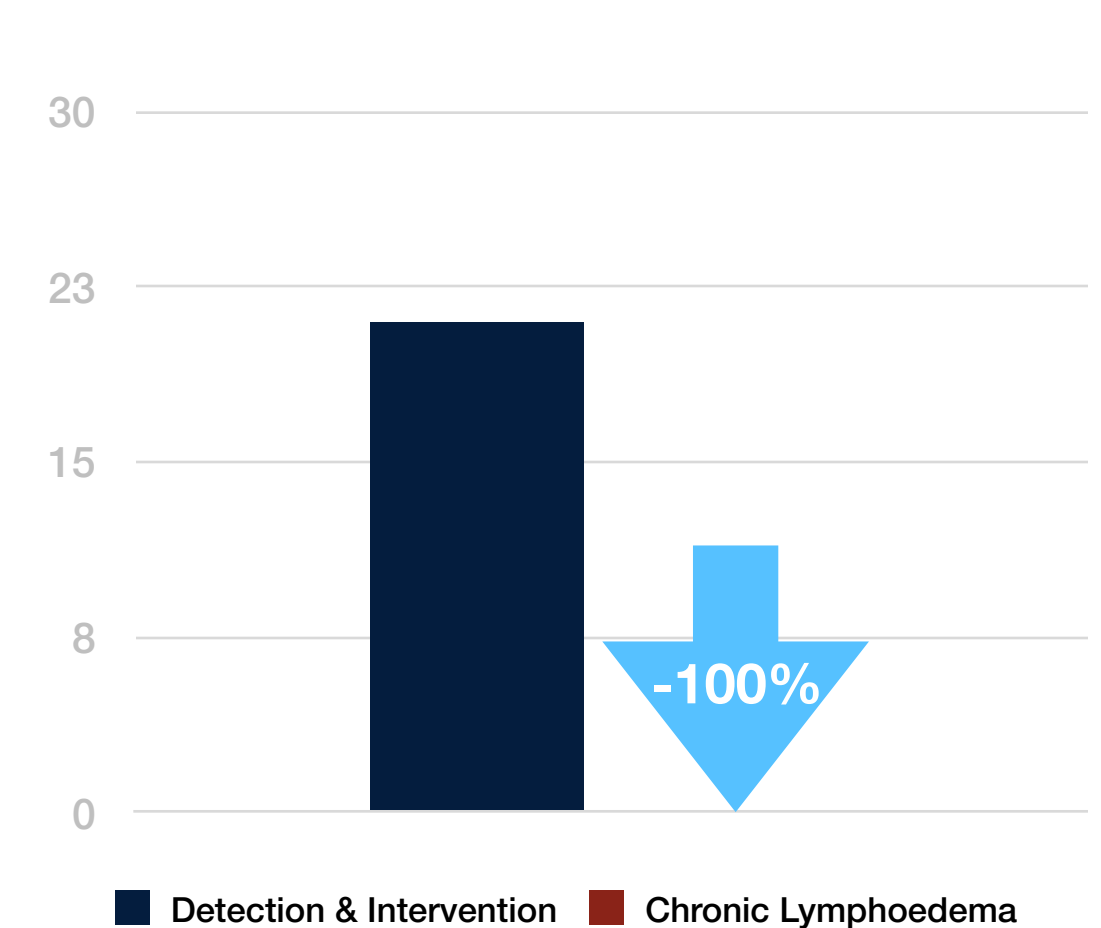
**Nashville Breast Center, TN, USA**  
(n=596, F/U 17 months)



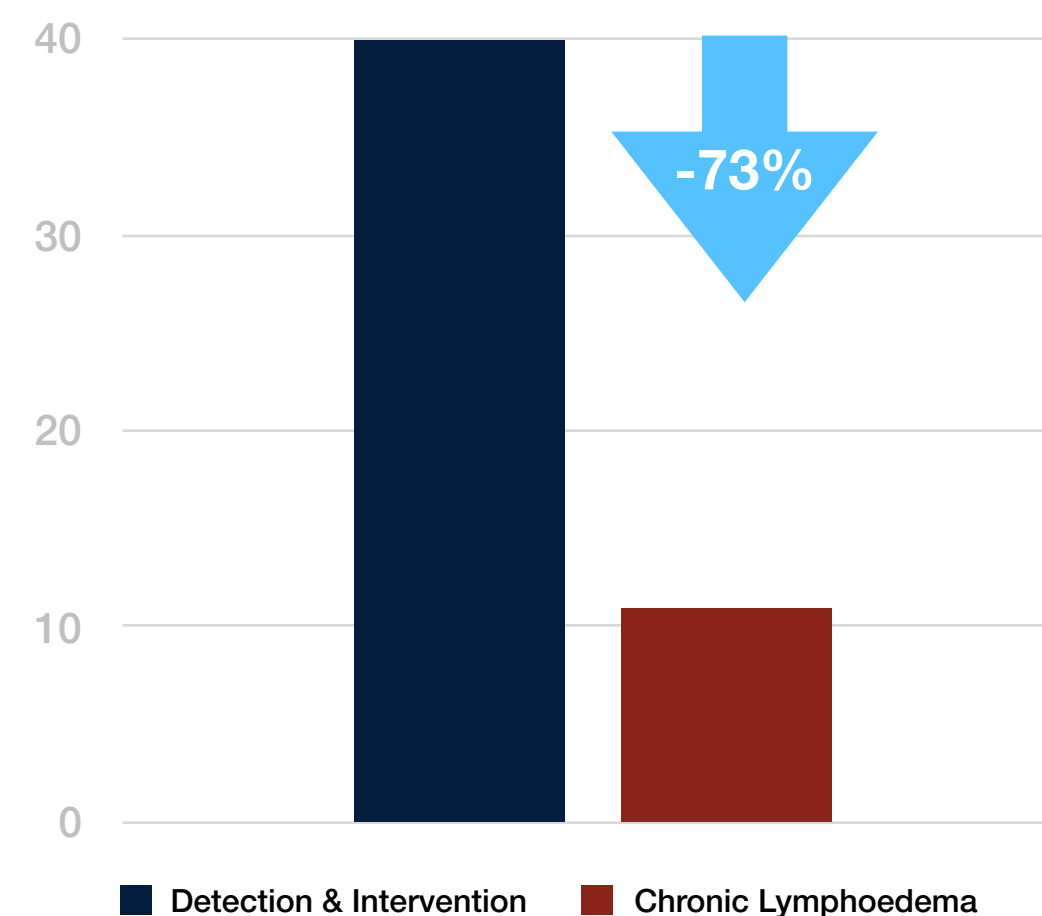
**Macquarie University, NSW, AUS**  
(n=188, F/U 8 months)



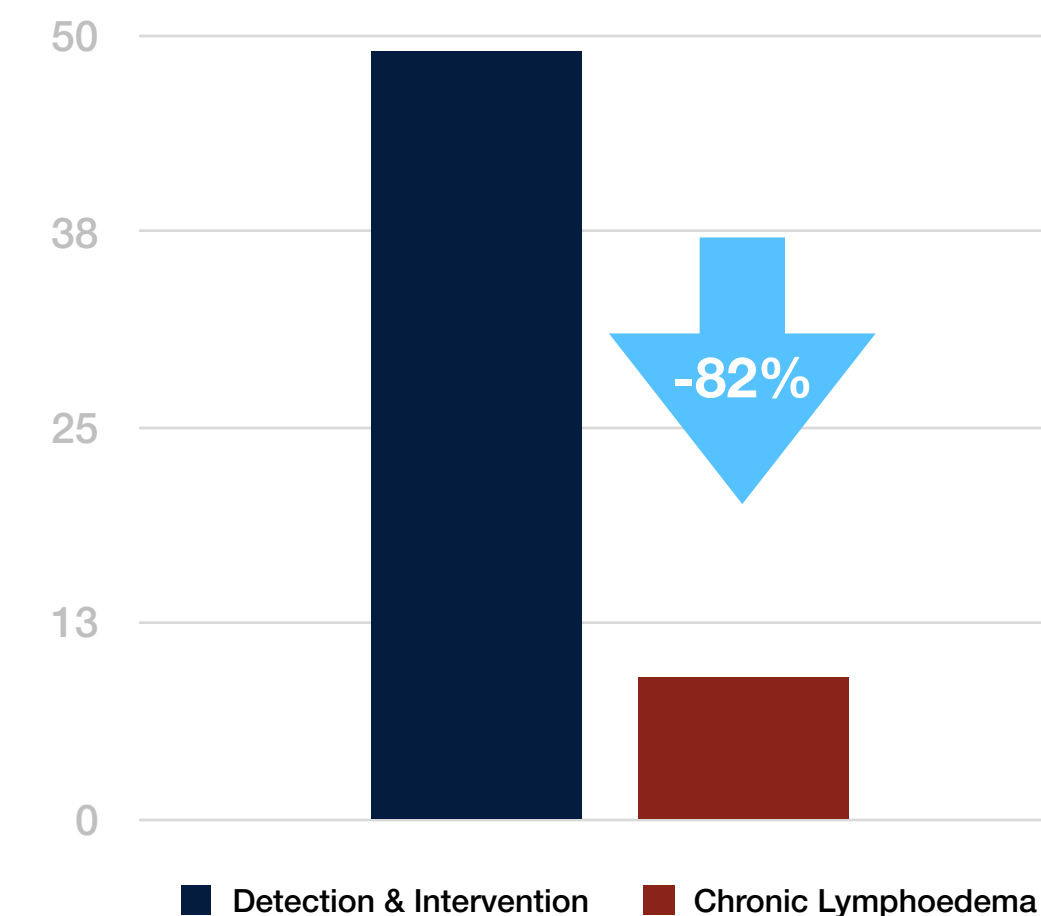
**Breast Care Specialists, NY, USA**  
(n=206, F/U 25.9 months)



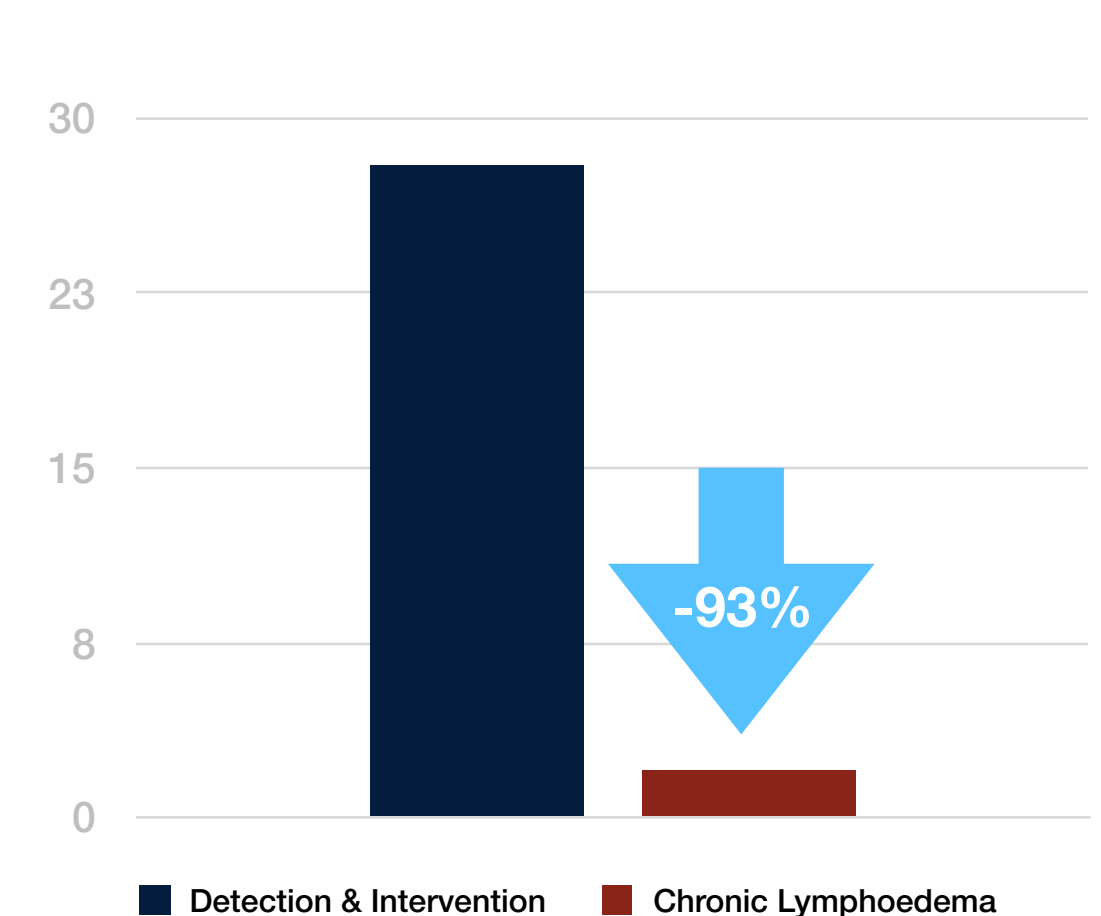
**Texas Breast Specialists & N. Texas Surgical Oncology Assoc, TX, USA**  
(n=326, F/U 21.7 months)



**University of Kansas Cancer Center, KS, USA**  
(n=146, F/U 21 months)



**University of Pittsburgh Medical Center, PA, USA**  
(n=186, F/U 20 months)



# L-Dex Increasingly Recommended in Clinical Practice Guidelines

Clinical Practice Guidelines	2019	Lymphatic Education & Research Network Centers of Excellence BIS recommended as risk assessment tool
	2019	eviCore Clinical Guidelines for Physical and Occupational Therapy Services BIS is a validated clinical tool for diagnosing Lymphoedema
	2018	NAPBC follow National Lymphoedema Network guidance (including BIS as tool to diagnose BCRL)
	2018	NEJM Clinical Practice article by Rockson recommends quarterly BIS measures
	2018	American Physical Therapy Association recommends L-Dex for assessment of Lymphoedema
	2017	University of Cincinnati Cancer Institute Breast Cancer Center Protocol recommends L-Dex for prospective surveillance and early assessment
	2016	Shah recommends BIS as part of survivorship program
	2016	Systematic review recommending BIS for management of BCRL





# Practice-Changing Results - PREVENT Trial Interim Results

## Conclusions

- “These preliminary results are important and support the use of subclinical detection with BIS and early intervention for patients with breast cancer at risk for lymphedema”.
- “If current rates remain consistent, it is expected that with the greater number of events, the difference between BIS and TM will become statistically significant.”
- “Further data with a longer follow-up than in this study is expected in the years to come and will strengthen these early, positive, practice-changing results”.

## Trial Design

- International, Multi-Institutional Randomised Controlled Trial
  - Planned enrolment 1,100 patients, 10 medical centres across the United States and Australia
  - 3 Year follow-up
- Randomised to L-Dex vs. Volume measurements (circumference)
  - L-Dex: Trigger  $\geq 6.5$
  - Volume: Trigger 5-10%
- Statistics:
  - 20% rate of breast cancer related Lymphoedema (BCRL) = 100 patients per group
  - Power: Bioimpedance spectroscopy (BIS) reduces complex decongestive physiotherapy (CDP) by 20% (50% assumption for circumference arm), power= 0.80 (If lower rates of progression, power increased)
  - Interim Analysis: 50% of patients randomised and completed 12 month follow-up (Final  $p < 0.05$ , interim  $p < 0.001$ )

## Primary Aim

- Does early detection and intervention with BIS reduce need for BCRL treatment with CDP vs. circumference measurements

**12 Month Interim Results Publication:**  
***Annals of Surgical Oncology***  
**May 3, 2019**

Ann Surg Oncol  
<https://doi.org/10.1245/s10434-019-07344-5>

Annals of  
**SURGICAL ONCOLOGY**  
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

### A Randomized Trial Evaluating Bioimpedance Spectroscopy Versus Tape Measurement for the Prevention of Lymphedema Following Treatment for Breast Cancer: Interim Analysis

Sheila H. Ridner, PhD, RN<sup>1</sup>, Mary S. Dietrich, PhD<sup>1,2</sup>, Michael S. Cowher, MD<sup>3</sup>, Bret Taback, MD<sup>4</sup>, Sarah McLaughlin, MD<sup>5</sup>, Nicolas Ajkay, MD<sup>6</sup>, John Boyages, MD, PhD<sup>7</sup>, Louise Koelmeyer, BAppSc(OT)<sup>7</sup>, Sarah M. DeSnyder, MD<sup>8</sup>, Jamie Wagner, DO<sup>9</sup>, Vandana Abramson, MD<sup>10</sup>, Andrew Moore, MD<sup>11</sup>, and Chirag Shah, MD<sup>12</sup>

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#### ABSTRACT

**Background.** Breast cancer-related lymphedema (BCRL) represents a major source of morbidity among breast cancer survivors. Increasing data support early detection of subclinical BCRL followed by early intervention. A randomized controlled trial is being conducted comparing lymphedema progression rates using volume measurements calculated from the circumference using a tape measure (TM) or bioimpedance spectroscopy (BIS).

**Methods.** Patients were enrolled and randomized to either TM or BIS surveillance. Patients requiring early intervention were prescribed a compression sleeve and gauntlet for 4 weeks and then re-evaluated. The primary endpoint of the trial was the rate of progression to clinical lymphedema requiring complex decongestive physiotherapy (CDP), with

progression defined as a TM volume change in the at-risk arm  $\geq 10\%$  above the presurgical baseline. This prespecified interim analysis was performed when at least 500 trial participants had  $\geq 12$  months of follow-up.

**Results.** A total of 508 patients were included in this analysis, with 109 (21.9%) patients triggering prethreshold interventions. Compared with TM, BIS had a lower rate of trigger (15.8% vs. 28.5%,  $p < 0.001$ ) and longer times to trigger (9.5 vs. 2.8 months,  $p = 0.002$ ). Twelve triggering patients progressed to CDP (10 in the TM group [14.7%] and 2 in the BIS group [4.9%]), representing a 67% relative reduction and a 9.8% absolute reduction ( $p = 0.130$ ).

**Conclusions.** Interim results demonstrated that post-treatment surveillance with BIS reduced the absolute rates of progression of BCRL requiring CDP by approximately 10%, a clinically meaningful improvement. These results support the concept of post-treatment surveillance with BIS to detect subclinical BCRL and initiate early intervention.

This research was presented at the Scientific Oral Presentation Session of the 20th Annual Meeting of the American Society of Breast Surgeons, Dallas, TX, USA, on 3 May 2019.

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Breast cancer represents the most common non-cutaneous cancer among women in the US and Australia, with outcomes improving over the past several decades.<sup>1,2</sup> With improved outcomes, increasing focus has been placed on adverse effects of treatment, including breast cancer-related lymphedema (BCRL). BCRL represents a major



# Reimbursement Strategy

## NCCN Guidelines®

- Requesting inclusion of formalised testing protocol and BIS technology for Lymphoedema prevention
- Joint application
  - Nationally recognised cancer centres
  - Medical societies
  - Patient advocacy groups

## Technical Assessment

- Requested clinical review of new data since original review in 2010

## Commercial Payors

- Currently in discussions
- Series of meetings to take place over the coming months
  - Tools:
    - Detailed reimbursement dossier
    - New clinical compendium
    - New cost analysis (circumference measurements versus BIS)

## Publication Plans

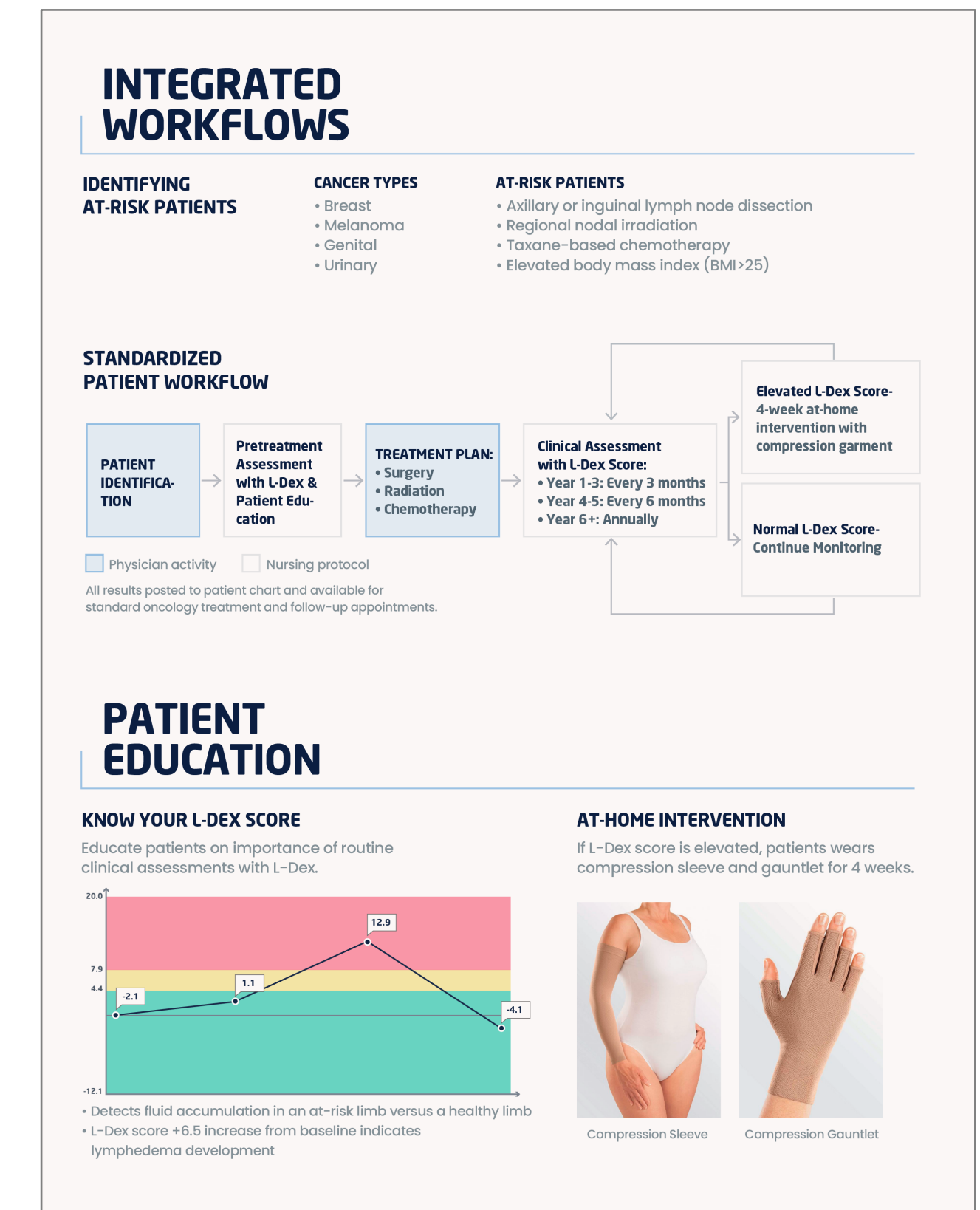
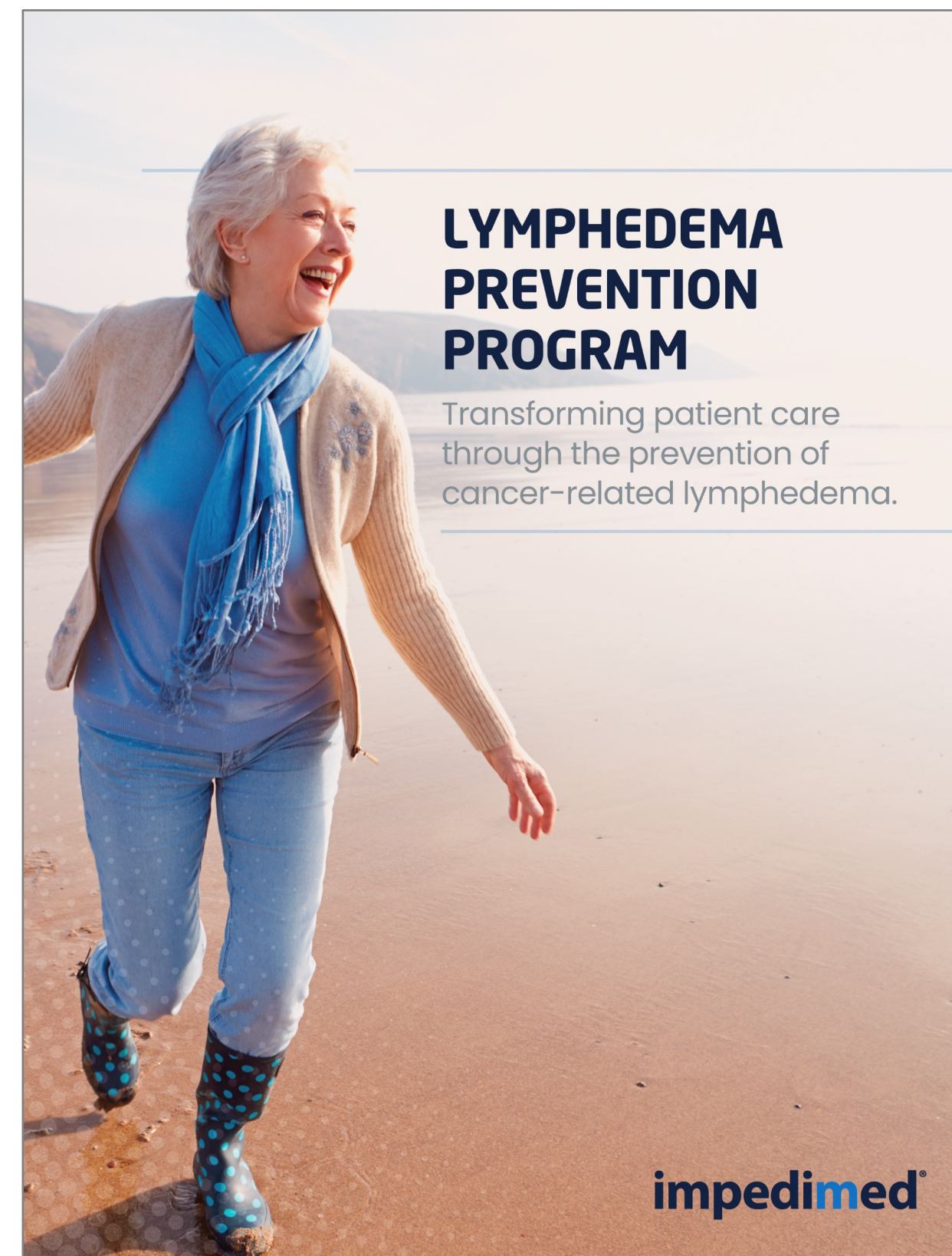
- PREVENT 2-year data
- Cost of treating Lymphoedema
- Independent studies to bolster Prevention Program



# Lymphoedema Prevention Program

## Transforming Patient Care through the Prevention of Cancer-Related Lymphoedema

- Complete solution for cancer-related lymphoedema prevention
- Incorporates “Best Practices” of our top cancer centres
- Consultative sales approach:
  - Maximises patient outcomes
  - Results in multi-device sales
  - Changes hospital protocols and breaks the “High Risk” only cycle
  - Optimises usage and adoption





## Number of Adults with Heart Failure

The number of people diagnosed with heart failure is increasing and projected to rise by 46 percent by 2030, resulting in more than 8 million people with heart failure.

**~6.5 million**

## Annual Cost of Heart Failure

This total includes the cost of health care services, medications to treat heart failure, and missed days of work.

**~\$31 Billion**



# SOZO for Heart Failure


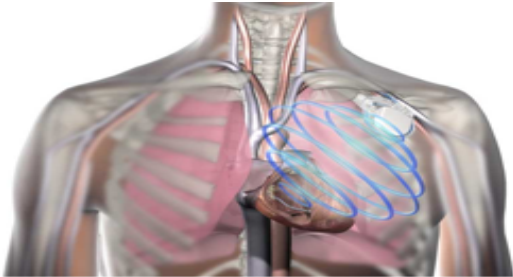
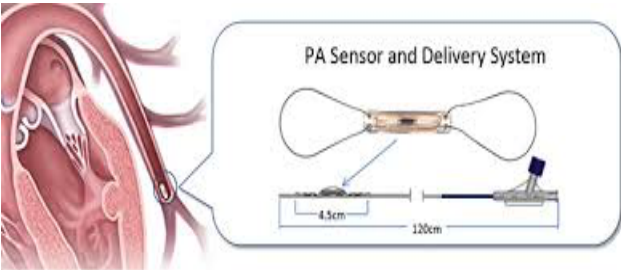
- Global pandemic affecting at least 26 million people worldwide
- Estimated 6.5 million Americans live with heart failure
- 1 in 5 over the age of 40 will develop heart failure
- Most common cause of hospitalisation of people 65 years and older
- About half of people who develop heart failure die within five years of diagnosis
- Heart failure costs the US an estimated \$31 billion each year
- Assessment of fluid burden is critical to the management of heart failure patients





# Current Heart Failure Monitoring Methods are Inadequate

- Current practice is to monitor HF patients daily for fluid burden both in-clinic and at-home
- Substantial opportunity to improve on existing monitoring methods

	Device	Method	Benefit	Shortcomings
Weight Scale		Rapid weight gain	Low cost	Inaccurate and rudimentary
Implantable Leads		Intrathoracic Impedance	Detects HF in time for intervention	Invasive, limited availability, poor data output
CardioMEMS		PA waveforms	Detects HF in time for intervention	Invasive and expensive

**SOZO is uniquely positioned to replace current monitoring methods**



Precision/accuracy of an implantable...



...at the cost of a scale



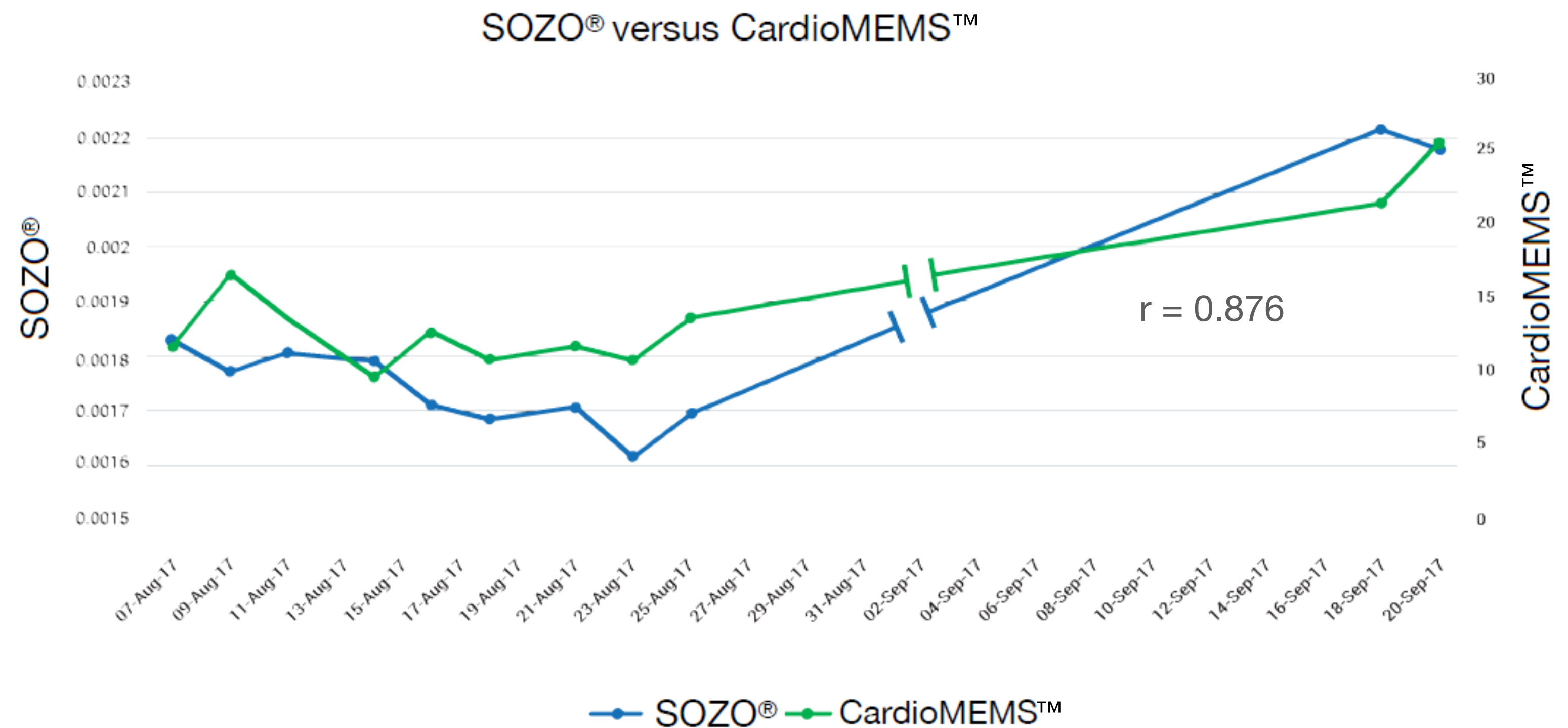
# SOZO Non-invasively Monitors Signs of Heart Failure as well as CardioMEMS at a Fraction of the Cost

## Case Study

- Advanced heart failure patient with implanted CardioMEMS device
- Changes made in diuretic medication to keep fluid balance stable
- SOZO fluid measurements taken daily

## Conclusion

- SOZO BIS measurements had a correlation coefficient of 0.876 with changes in diastolic pulmonary artery pressure as measured with CardioMEMS to detect fluid excess and impending congestion before hospitalization

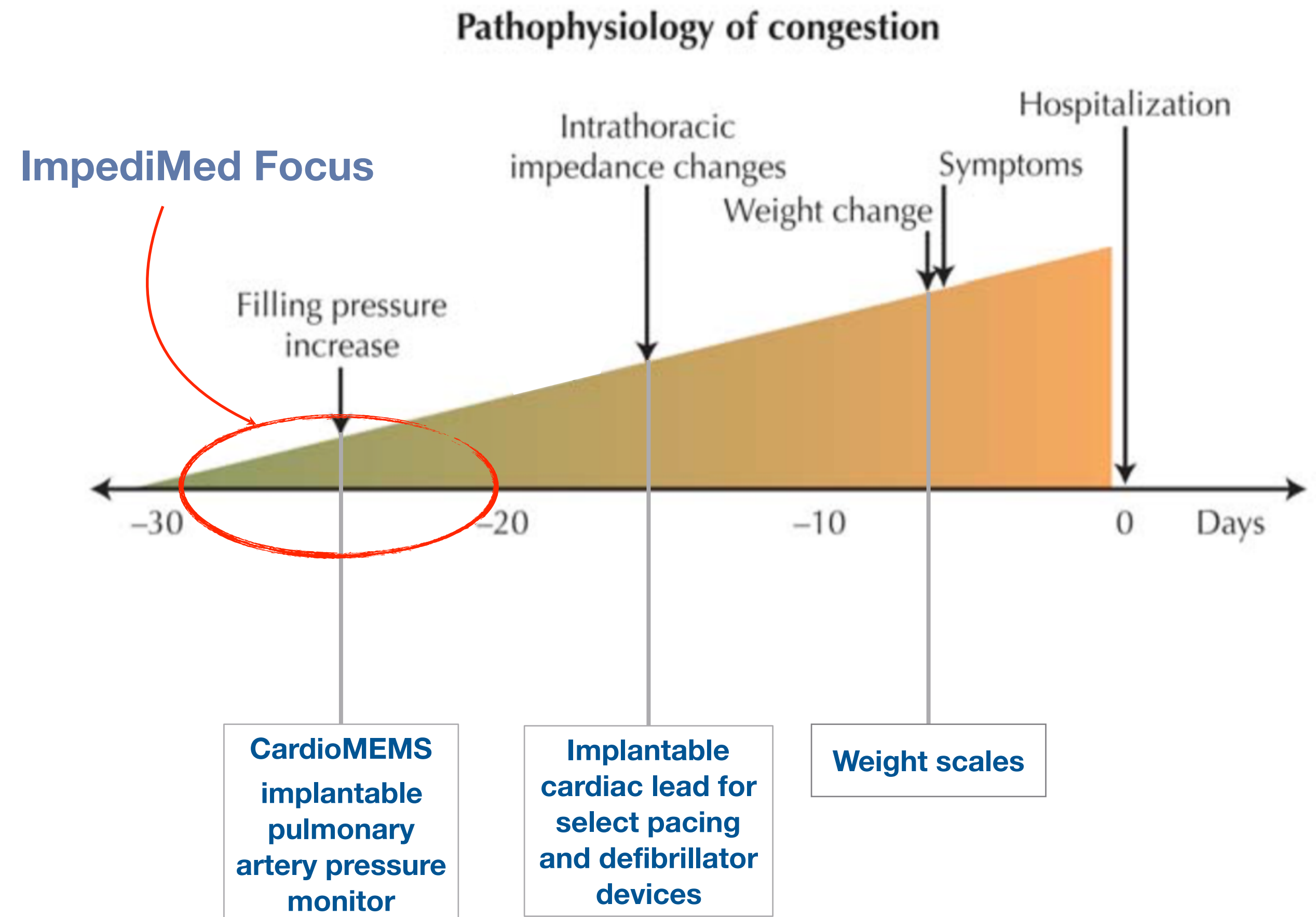




# Early Detection of Fluid Build-up Critical to Reducing Heart Failure Readmissions

- After a single heart failure hospitalisation
  - Nearly 25% of patients are readmitted in 30 days<sup>1</sup>
  - Nearly 50% of patients are readmitted in 6 months<sup>1</sup>
- Medicare payments for unplanned hospital readmissions totalling more than \$17 billion account for nearly 15% to 20% of total Medicare expenditure on acute hospital care<sup>1</sup>
- Early detection (>12 days) of fluid-build up can reduce readmissions

## Progression to Heart Failure Hospitalization



Desai, A. S. (2012). *Home Monitoring Heart Failure Care Does Not Improve Patient Outcomes: Looking Beyond Telephone-Based Disease Management*. Circulation, 125(6), 828–836.

Yu, C.M., et al., *Intrathoracic impedance monitoring in patients with heart failure: correlation with fluid status and feasibility of early warning preceding hospitalization*. Circulation, 2005. 112(6): p. 841-8.

Adamson, P.B., *Pathophysiology of the transition from chronic compensated and acute decompensated heart failure: new insights from continuous monitoring devices*. Curr Heart Fail Rep, 2009. 6(4): p. 287-92.



# US Heart Failure Business Model

## Initial Focus on Class III HF Patients

- Estimated at 25% of US 6.5 million HF patients
- Monitor and manage the disease progression for Class III patients

## SOZO HF Usage Model

- Baseline reading to be performed in a clinical setting
- Daily monitoring to continue in either a clinical or remote setting

## SOZO HF Revenue Model

- Initial device purchase plus a monthly subscription model
- Expanded licensing opportunities with existing clinics and hospitals

Preliminary Estimate of Initial US Addressable Market	
Estimated initial patient population	~1.6 Billion
Preliminary estimated addressable per annum US market based on \$60 per patient per month over 12 months	>US\$1.0 Billion <sup>1</sup>

1. Excludes revenue from initial device sales



# Heart Failure Action Plan

## Clinical Data for Widespread Adoption

- Working with world leading institutions on HF trials
  - First data presented at 23rd World Congress on Heart Disease July 2018
  - Correlation case study and clinical utility of SOZO to monitor HF patients presented at American Heart Congress - CVD
- Data from initial HF studies has led to initiation of larger multi-centre study
  - Lead by Dr. Thomas Heywood
  - Study commenced, first patient enrolled 9 October 2018
  - ~200 patients - actively enrolling
  - Fluid measurements during hospitalisation for HF and daily for 45 days after discharge (at-home)
  - Principal Investigator meeting scheduled for early August to review data and publication strategy
  - Heart Failure advisory board meeting to include other world thought leaders scheduled for September at the 2019 Heart Failure Society of America meeting. Full review of all clinical data and develop next steps

## Regulatory

- Expanding heart failure opportunity to include those with implantable devices. Expect regulatory clearance by end of CY'19

## Favourable Reimbursement and Guidelines Regime

- Reimbursement established to pay providers to remotely manage patients
- Current guidelines in place for daily monitoring of Class III patients for fluid burden

## SOZO Regulatory Milestones

- CE Mark achieved June 2017
- FDA 510(k) clearance for fluid monitoring of patients living with HF achieved December 2017



## Expected Milestones and Upcoming News Flow

- Continued strong growth in SOZO SaaS subscription based business
  - PREVENT Trial 2-year data published
  - PREVENT Trial — additional publications
  - Cost of treating lymphoedema publication
  - NCCN Guidelines® — The addition of a formal testing protocol and inclusion of BIS technology
  - Podium presentations at major medical congresses
  - Private payors begin coverage of L-Dex — catalyst for broad adoption in US
- Regulatory clearance for BIS in patients with implantable devices — by end of CY'19
- Release of additional HF studies utilising SOZO
- Completion and results of larger multi-centre HF study
- Commercialisation of SOZO for HF



# Appendix





# Management Team

## Deep and Broad Commercialization Experience



**Richard Carreon**  
Managing Director and  
Chief Executive Officer

- Joined July 2012
- 30+ years experience
- Extensive experience in the medical device field and growth companies
- Previously Vice President at Medtronic (10 years)



**Frank Vicini, MD**  
Chief Medical Officer

- Joined September 2014
- 25+ years as radiation oncologist
- Completed his fellowship at Harvard Medical School, has authored over 200 peer reviewed publications, and participated in 6 NIH clinical trials and the MammoSite Registry trial



**Morten Vigeland**  
Chief Financial Officer

- Joined April 2011
- 20+ years in financial management in the medical technology industry
- Experience in med-tech start-ups and emerging growth companies



**Catherine Kingsford**  
SVP Medical Affairs

- Joined January 2007
- 20+ years global clinical experience with medical devices
- Previously worked as a cardiac scientist at several world-class medical institutions including St. Andrew's War Memorial Hospital, The Prince Charles Hospital, and Royal Brompton Hospital



**David Adams**  
SVP Ventures, Licensing &  
Corporate Development

- On Board November 2013 to August 2016
- Joined August 2016
- Background as medical device investment & business development executive
- 25+ years experience in tax, financial planning, and business development
- Previously Vice President, Integrations and Divestitures at Medtronic



**Dennis Schlaht**  
SVP R&D  
and Technology

- Joined October 2007
- 30+ years in engineering development and product marketing
- Previously Vice President of Marketing and Product Development at XiTRON's Test and Measurement Business



**Nancy Deisinger**  
VP Human Resources

- Joined July 2016
- 20+ years in human resources, including 10+ years in medical device, working with start-ups to Fortune 500 companies
- Previously AVP Human Resources at 3E Company



**Shashi Tripathi**  
Chief Technology Officer

- Joined July 2018
- 20+ years as a healthcare technology leader
- Previously SVP of Technology & Operations at New Century Health, where he oversaw all aspects of IT, project and product management, product development and operations



# Board of Directors



**Scott R. Ward**  
MS, BSc  
Non-Executive Director

- Joined July 2013
- Venture capitalist with 30+ years experience in healthcare industry
- Previously Senior Vice President and President of the Cardiovascular business of Medtronic
- Currently Chairman, President and CEO of Cardiovascular Systems, Inc.



**Gary Goetzke**  
Juris Doctorate  
Non-Executive Director

- Joined August 2016
- 15+ years in senior management positions with medical device companies
- Currently the Principle and Chief Executive Officer of Compass Medical Advisors, LLC



**Robert M. Graham**  
AO, FAA, FAHMS, MBBS, MD, FRACP, FACP, FAHA  
Non-Executive Director

- Joined January 2018
- Received medical training at the University of South Wales where he is now the Des Renford Professor of Medicine
- Inaugural Executive Director, Victor Chang Cardiac Research Institute, Sydney Australia
- 17+ years experience in US healthcare and currently a consultant physician in cardiovascular diseases



**Richard Carreon**  
Managing Director and Chief Executive Officer

- Joined July 2012
- 30+ years experience
- Extensive experience in the medical device field and growth companies
- Previously Vice President at Medtronic (10 years)



**Judith Downes**  
Non-Executive Director

- Joined April 2017
- 20+ years of accounting and senior management expertise with large ASX listed companies
- Previously a CFO at Alumina Limited and CFO/COO of Institutional Division, ANZ Banking Group Limited
- Currently Board Chairman of Bank Australia Limited, Honorary Fellow of the University of Melbourne's Faculty of Business and Economics, and Director, CleanTeQ Holdings Limited



**Donald A. Williams**  
BAcy, CPA  
Non-Executive Director

- Joined March 2017
- 35+ years in leadership roles serving the life science, biotech, and medical device industries
- Currently the Audit Committee Chair of Akari Therapeutics, Alphatec Holdings, Marina Biotech, and Proove Biosciences, and the Compensation Committee for Marina Biotech



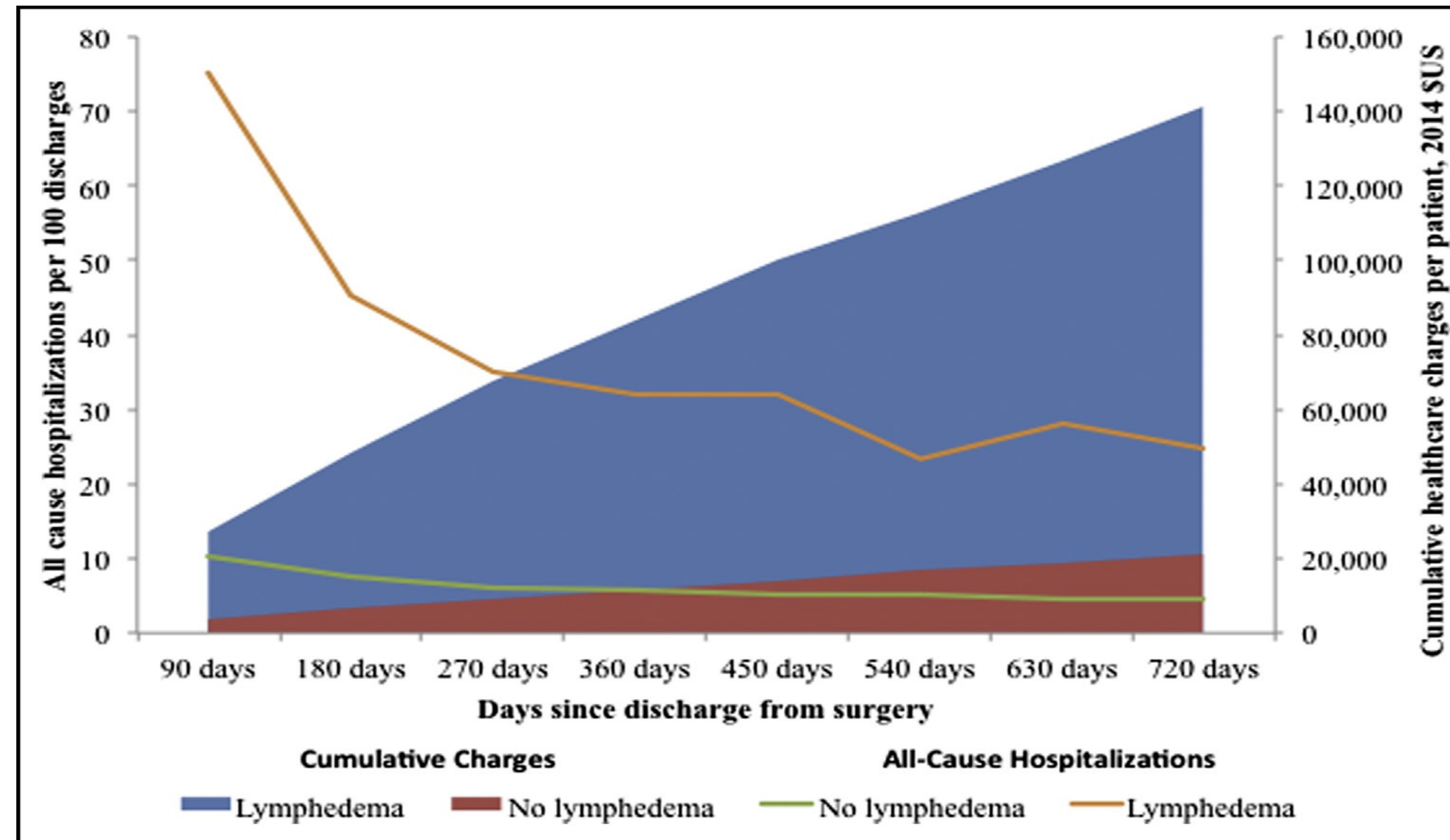
**Amit R. Patel**  
MBA, BME  
Non-Executive Director

- Joined March 2017
- 8+ years in senior management positions across medical device, consumer software, and digital health organisations
- Currently Co-Founder and CEO of Murata Vios, Inc. (formerly Vios Medical, acquired by Murata Manufacturing)



# SOZO Delivers Compelling Healthcare Cost Savings

**Complicated Lymphoedema Costs the Healthcare System  
~\$120k per patient over 2 years**



Implementing a prospective model of care for cancer patients has the potential to:

- Reduce Lymphoedema rates by as much as 95%
- Reduce the healthcare costs associated with Lymphoedema care by as much as 70%
- Prevent more than 300,000 cancer patients a year from developing Lymphoedema
- Significantly improve the quality of life for cancer survivors



# BIS Offers the Best Option for Managing Heart Failure Patients

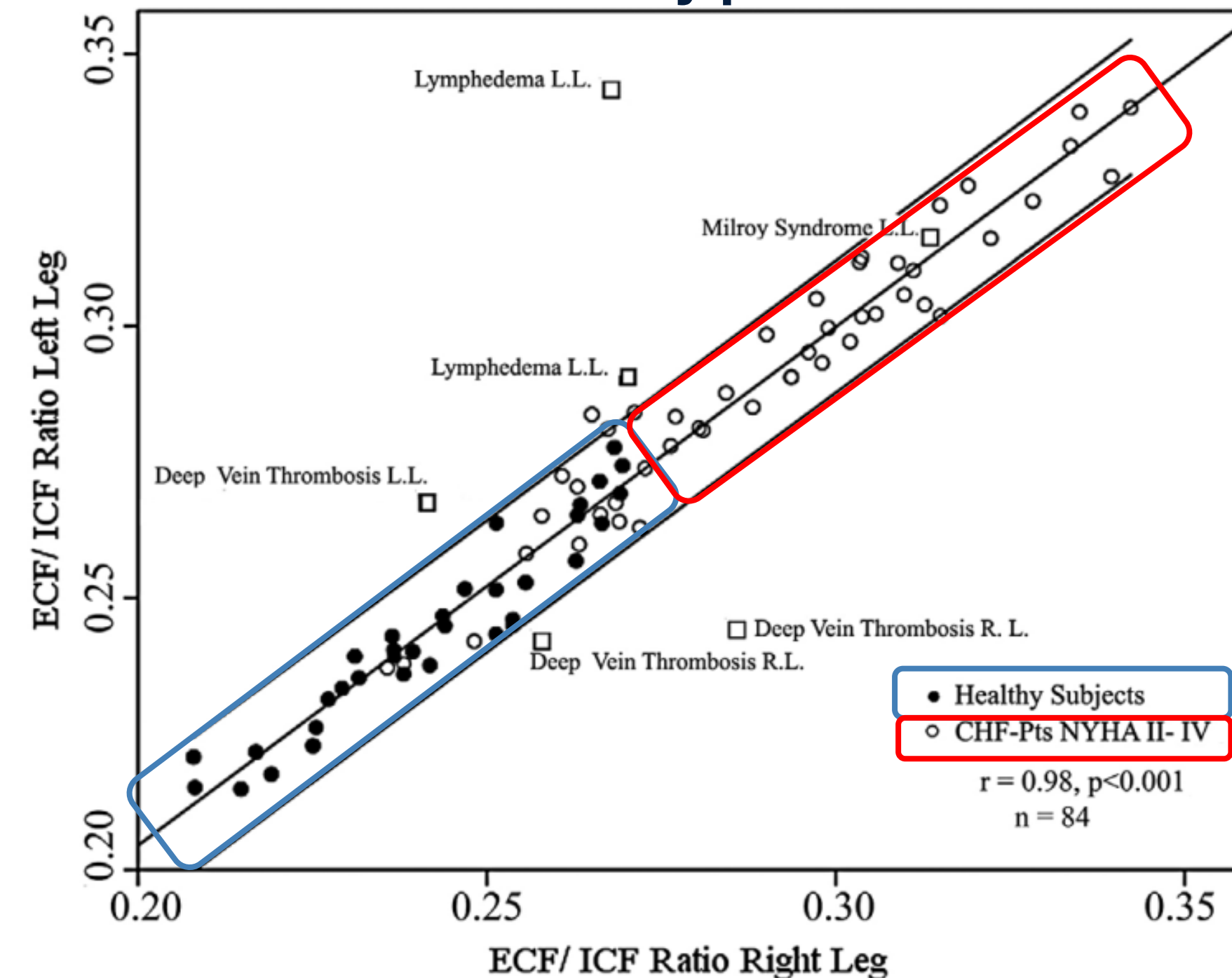
5 papers, including 3 from Aachen University / Philips Research Technologies

- 242 patients

Findings:

- Peripheral edema detected with a sensitivity of 100% and a specificity of 90%.
- ECF/ICF ratio may be able to detect the accumulation of extracellular fluid in the thorax, abdomen or the legs.
- Ability to measure different body segments the best option to manage the course of disease.
- BIS measurement was safe, noninvasive, and easy to handle with demonstrated feasibility of use.
- ECF/ICF ratio could become helpful for the diagnosis and management of HF in the future.

BIS differentiates between healthy and unhealthy patients



**“BIS can detect and follow the changes in lung impedance in patients and is sensitive to extracellular volume. Since most patients with acute HF suffer not only from pulmonary edema but also from edema in the limbs, a combination of different segmental BIS measurements offers the best option to manage the course of disease.” Weyer 2014**

1. Beckmann, L., et al., *Monitoring of body fluid in patients with chronic heart failure using Bioimpedance-Spectroscopy*. IFMBE Proceedings 25/VII, 2009. 25: p. 532-535.
2. Ribas, N., et al., *Longitudinal and Transversal Bioimpedance Measurements in Addition to Diagnosis of Heart Failure*. Journal of Physics: Conference Series, 2010. 224.
3. Skrabal, F., et al., *Adding "hemodynamic and fluid leads" to the ECG. Part I: the electrical estimation of BNP, chronic heart failure (HF) and extracellular fluid (ECF) accumulation*. Med Eng Phys, 2014. 36(7): p. 896-904; discussion 896.
4. Weyer, S., et al., *Bioelectrical impedance spectroscopy as a fluid management system in heart failure*. Physiol Meas, 2014. 35(6): p. 917-30.
5. Zink, M.D., et al., *Feasibility of Bioelectrical Impedance Spectroscopy Measurement before and after Thoracentesis*. Biomed Res Int, 2015. 2015: p. 810797