

# ReDS™ – OPTIMIZING CARE AT THE OUTPATIENT CLINIC



## Helping Heart Failure Clinics Get It Right...Fast

At many centers, Heart Failure clinics have become the cornerstone of providing guideline-directed medical therapy, allowing Heart Failure patients to live better, longer lives. That means aggressive medical therapy including titration of RAAS-inhibitors, beta-blockers and other life-saving agents. However, Heart Failure clinics also serve as the front line in keeping patients from bouncing in and out of the hospital. *"Keeping people dry is one of the main things we can do to keep them from going to the ED,"* says Dan Bensimhon, MD, Medical Director of the Advanced Heart Failure and Mechanical Circulatory Support Program at Cone Health System in Greensboro, NC. *"In a recent study we did at our center, we were surprised to find that one-third of the patients who walk through our door have high levels of lung water."*

## Accurate Assessment of a Patient's Condition

With the ReDS™ system, practitioners can get a noninvasive, accurate and actionable measurement of a patient's lung fluid in just 90 seconds. *"The ReDS™ device can be used in the clinic for a spot check on patients to correlate readings with their Heart Failure signs and symptoms or to look for lung congestion in patients who may have equivocal symptoms,"* says William T. Abraham, MD, FACP, FACC, Director of the Division of Cardiovascular Medicine at Ohio State University.

Using the ReDS™ system also helps to add some certainty to volume assessment and allow a wide range of practitioners to feel more comfortable treating Heart Failure patients. *"It certainly makes me a better practitioner, but it also provides our nurse practitioners, physician assistants and pharmacists the same information and enables them to suggest changes to a patient's diuretic regimen more quickly and confidently,"* says Dr. Bensimhon. *"This allows the clinic to flow more smoothly and leads to more targeted care."*

Heart Failure clinics can also offer difficult-to-manage patients the ability to have the ReDS™ system at home so they can remotely monitor patients, ensure compliance and fine-tune their regimens to keep them dry and feeling better.

## ReDS™ - Decreasing the Rate of Hospital Readmissions

- Objective and actionable measurements of lung water in 90 seconds
- Health care providers with the ability to work together to titrate diuretics quickly and more confidently
- The optimization of care with noninvasive support in the clinic or at home
- The ability to keep patients drier... and safer



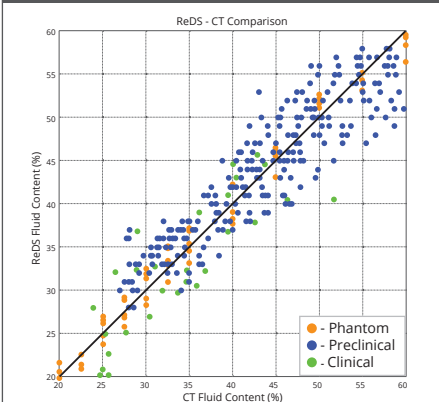
**SENSIBLE  
MEDICAL**  
Seeing through walls



## ReDS™ - Striving to lead a new standard of care in heart failure

The ReDS™ system measures lung fluid in Heart Failure patients. It is intended for the measurement of lung fluid in patients living with Heart Failure, patients taking diuretic medication or patients recovering from a coronary artery disease-related event. Adapted for medical use from the military's 'see-through-wall' technology, ReDS™ is a miniature radar system employing low-power electromagnetic energy that provides accurate lung fluid measurements in just 90 seconds, using a noninvasive vest worn by the patient.

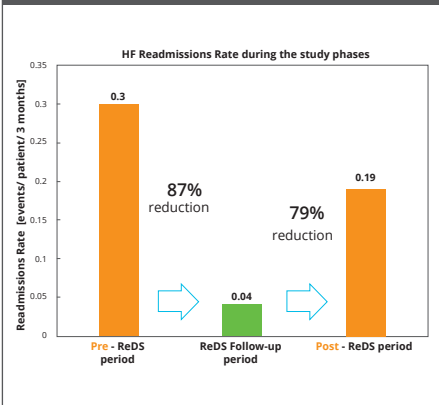
### Accuracy - ReDS vs. CT - 0.94 Correlation



## Technology Validation

ReDS™ medical radar technology has been validated in several bench, pre-clinical and clinical studies. When comparing the accuracy of ReDS™ technology to that of CT-assessed lung fluid quantification, based on commercially available software, the combined intra-class correlation between modalities is 0.94 (385 Data points). The bench test performed on a phantom model showed a correlation of 0.99. The pre-clinical study resulted in a correlation of 0.89 [0.86-0.93] over 294 points. The clinical study included 31 patients and demonstrated a correlation of 0.9 [0.8-0.95]<sup>1</sup>.

### ReDS-HF Readmission Reduction - Economic Benefit Feasibility Study



<sup>1</sup> O. Amir et al., Validation of remote dielectric sensing (ReDS™) technology for quantification of lung fluid status: Comparison to high resolution chest computed tomography in patients with and without acute heart failure, International Journal of Cardiology 221 (2016) 841-846