



Detecting Volume Overload Study¹

In a study designed by Dr. Peacock, ReDS demonstrated effectiveness at detecting volume overload in the Emergency Department. ReDS corroborated detection of lung fluid with the gold standard clinical determination of fluid exhibiting **sensitivity and specificity of 89% and 83% respectively** for a cutoff ReDS reading of 37%

1

Fluid determination by ReDS has strong agreement with clinical diagnosis by a team of physicians with all available data 30 days post discharge.

2

ReDS can help triage
Emergency Department
patients with shortness of
breath quickly.

3

ReDS quick and accurate determination of fluid may lead to better clinical outcomes and may help save money with patient throughput improvements.

Remove the Burden from the Emergency Department²

Alamance Regional had over a 90% admit rate for shortness of breath in the Emergency Department (ED). This study examined 58 patients with a history of heart failure presenting to the ED with complaint of worsening shortness of breath (SOB) or swelling.

ED ReDS Reading	No. of Patients (n=58)
≤ 35%	33% (19)
36-39%	26% (15)
≥40%	41% (24)

33% of patients experienced SOB for reasons other than congestive heart failure and should not be admitted for heart failure.

26% of patients could potentially be managed with diuretic therapy under observation to avoid an admission to the hospital.

As many as

59% of patients in the ED could benefit from ReDS to potentially be cared for **without a hospital admission**.

^{1 -} Nguyen H, Fisch E, Sekhon N, MaArthur R, Peacock FW, Rafique Z, 'Remote Dielectric Sensing in Emergency Department Dyspnea'. Academic Emergency Medicine, Vol. 26 No. 1S, May 2019, p. S290 https://doi.org/10.1111/acem.13756

^{2 -} Curran L, Peck K, Stanfield L, Gillispie C, Johnson T, Bensimhon D, 'Use of ReDS Technology to Triage Heart Failure Patients in the Emergency Department'. Journal of Cardiac Failure, Vol. 24 No. 8S, August 2018, p. S49, https://www.onlinejcf.com/article/S1071-9164(18)30502-5/abstract.