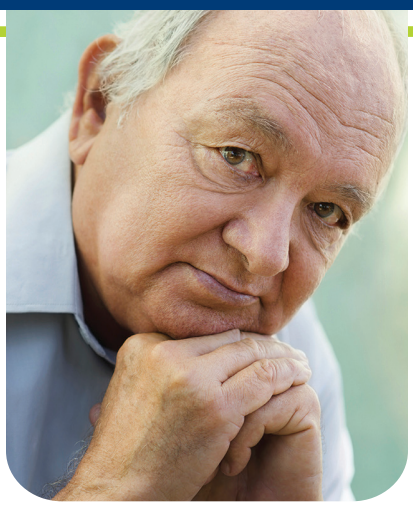


Significantly reduce heart failure mortality and readmissions

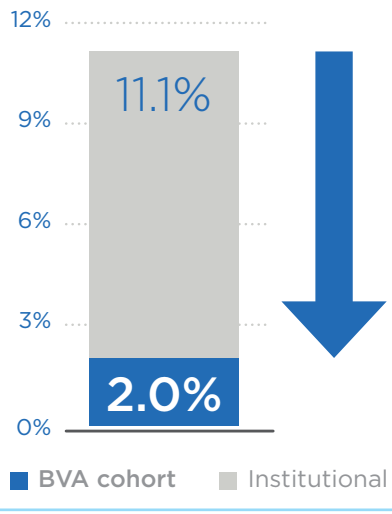
with individualized care guided by direct blood volume analysis (BVA)

In a large mixed (HFpEF/HFrEF) cohort (n=245), individualized management guided by BVA improved key outcomes vs 10:1 propensity score matched-controls[1]

30-day mortality

82% reduction

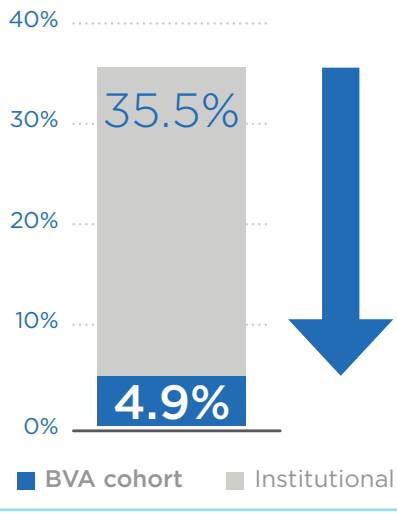
in relative risk
(*P*<0.001)



365-day mortality

86% reduction

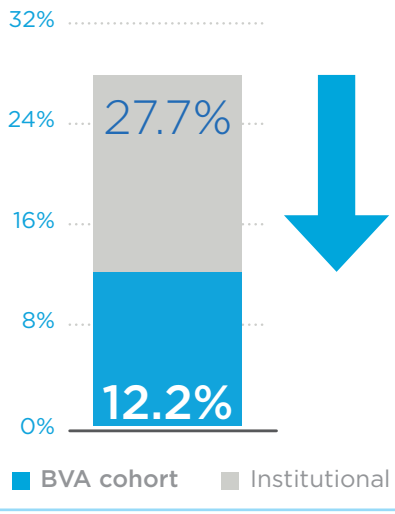
in relative risk
(*P*<0.001)



30-day readmissions

56% reduction

in relative risk
(*P*<0.001)



Propensity-score control matching analysis was performed for 245 consecutive HF admissions to a community hospital (Sept 2007–Apr 2014, age 78±10 yrs, HFrEF 50%, Stage 4 CKD 30%). Total blood volume (TBV) and red blood cell volume (RBCV) were measured at admission by an I-131 labeled albumin indicator-dilution technique [Daxor BVA-100]. Decongestion strategy targeted TBV to 6%-8% above patient-specific norm. Anemia was corrected with iron, epoetin, and/or packed red blood cells. Controls derived from CMS data were matched 10:1 for demographics, comorbidity, and year of treatment.[1]

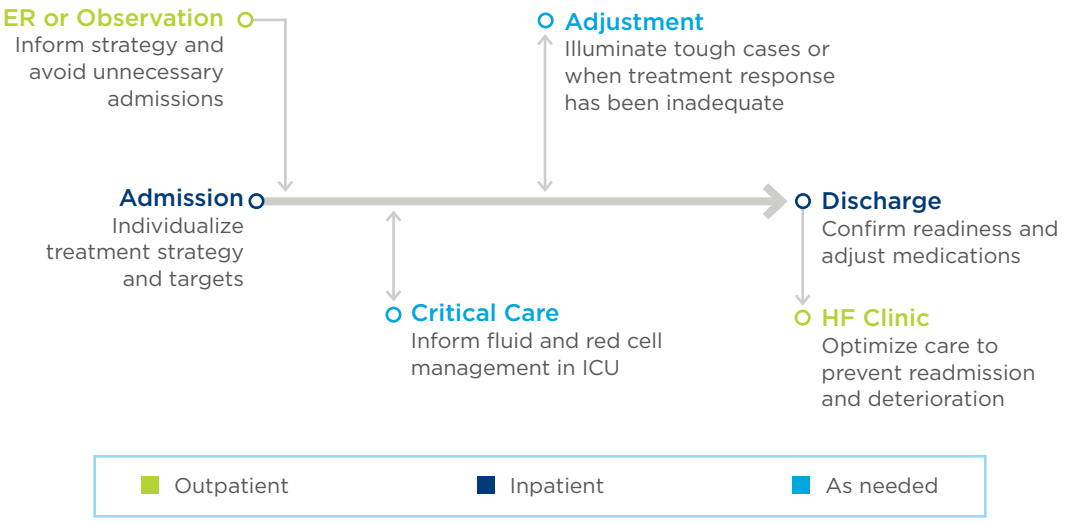
Volume and red blood cell status heterogeneity was high, suggesting a medical need for the direct, accurate evaluation only possible with BVA

- The high heterogeneity observed in this cohort is consistent with previously published observational data in HF for total blood volume[2-4] and red blood cell volume[2,4-6] status

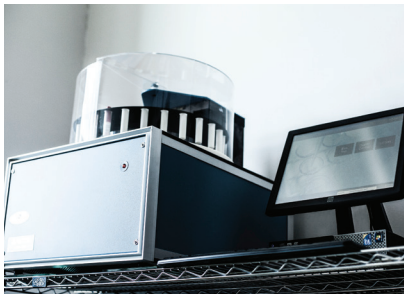
DAXOR
THE BLOOD VOLUME COMPANY™

BVA touchpoints

Points of contact in HF care at which to consider direct BVA



> "The extent, composition, and distribution of volume overload in decompensated heart failure are highly variable, and this variability needs to be taken into account in the approach to individualized therapy."[2]
>
> — Wayne L. Miller, M.D.



Take the guesswork out of HF care

- Provides total blood and red blood cell volume along with calculated patient-specific ideals*
- Actionable results—quantifies the excess or deficit with **98% accuracy**
- Confidently identify and address anemia, regardless of plasma expansion or depletion
- Non-invasive, single-venipuncture technique†
- Over 40,000 tests performed in over 75 hospitals
- Fully reimbursed by Medicare

*Derived from Metropolitan Life height, weight, and gender data in a uniquely accurate, validated methodology.[7,8]

†A ^{131}I labeled albumin tracer injection (≥25 microcuries: no requirement for thyroid blockade[9]) is followed by 5 blood draws 5-6 minutes apart. The Daxor BVA-100 measures plasma dilution in successive samples and performs a regression analysis to arrive at the total blood volume. Institutional procedural variance drives a real-world time range of ~45-90 minutes for full results; preliminary results may be obtained in <30 minutes.

References: 1. Strobeck JE, et al. Propensity Score Matched-Controlled Study of Impact of Blood Volume Quantification on Decongestion Strategy, Readmission Rates, and Mortality in Hospitalized Heart Failure Patients. Poster presented at American College of Cardiology 67th Annual Scientific Session; March 2018; Orlando, FL; abstract 1105-104. **2.** Miller WL, et al. Understanding the heterogeneity in volume overload and fluid distribution in decompensated heart failure is key to optimal volume management. *J Am Coll Cardiol HF* 2014;2:298-305. **3.** Androne AS, et al. Relation of unrecognized hypervolemia in chronic heart failure to clinical status, hemodynamics, and patient outcomes. *Am J Cardiol* 2004;93:1254-1259. **4.** Miller WL, et al. Volume overload profiles in patients with preserved and reduced ejection fraction chronic heart failure: is there a difference? *J Am Coll Cardiol HF* 2016;4:453-459. **5.** Miller WL, et al. Peripheral venous hemoglobin and red blood cell mass mismatch in volume overload systolic heart failure: implications for patient management. *J Cardiovasc Trans Res* 2015;8:404-410. **6.** Androne AS, et al. Hemodilution is common in patients with advanced heart failure. *Circulation* 2003;107:226-229. **7.** Feldschuh J, et al. Prediction of the normal blood volume—relation of blood volume to body habitus. *Circulation* 1977;56(4):605-612. **8.** Feldschuh J, et al. The importance of correct norms in blood volume measurement. *Am J Med Sci* 2007;334(1):41-46. **9.** Volumex® [package insert]. Daxor Corporation, New York, NY; 2005.

DAXOR
THE BLOOD VOLUME COMPANY™