

## **Blood Transfusion for Acute Decompensated Heart Failure – Friend or Foe? – Lessons from the First Israeli Heart Failure Survey**

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**Background:** The impact of blood transfusion (BT) among pts with acute decompensated heart failure (ADHF) remains unknown. **Aim:** To examine the impact of BT among ADHF pts enrolled in the First Israeli Heart Failure Survey in 2003. **Methods:** Propensity score analysis of ADHF pts with and without BT. **Results:** Of the 4102 pts, 2335 had ADHF, of whom 166(7.1%) received BT. They were older (75.6 vs 73.6, p=0.04), and more likely to be females (54.8% vs 43.9%, p=0.007), diabetic (59.0% vs 51.1%, p=0.04), and with renal dysfunction (59.0% vs 40.2%, p<0.001). BT pts were more likely to receive inotropes (16.9% vs 8.0%, p<0.001), but had similar rates of concurrent ACS (41.0% vs 39.4%, p=0.68). Nadir hemoglobin levels were <10gr% in 92.7% BT pts vs 7.9% in non-BT pts; 15 BT pts had bleeding complication, 10 major. Major predictors for BT were ACS (OR=1.85, 95% CI 1.15-2.96), inotropes (OR=2.36, 95% CI 1.2-4.6), and nadir hemoglobin (OR=0.18, 95% CI 0.14-0.22). In-hospital, 30d, and 1y unadjusted mortality rates were higher for BT pts (10.8% vs 5.2%, p=0.002, 11.0% vs 8.5%, p=0.27, and 39.6% vs 28.5%, p=0.003, respectively). 103 matched pairs were identified with c-statistic of 0.97 and in-hospital, 30d, and 1y mortality rates tended to be lower for matched BT pts (8.7% vs 14.6%, p=0.20, 9.7% vs 18.4%, p=0.08, and 38.8% vs 42.7%, p=0.59, respectively). **Conclusions:** ADHF pts receiving BT had worse clinical features, and accordingly worse outcomes. However, BT *per se* in this setting seems to be safe and perhaps even beneficial.