DEMOGRAPHIC VARIATIONS PREDICT TRANSFUSION PATTERNS IN HEART FAILURE PATIENTS WITH ANEMIA

ACC Moderated Poster Contributions
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Introduction: Anemia is common in patients with heart failure (HF). Depending on the severity of HF and the criteria used to define anemia, the prevalence of anemia among HF patients can be as high as 50%. We conducted a retrospective study to identify demographic variables in anemic patients admitted to the intensive care unit (ICU) with HF that predict packed red blood cell (PRBC) transfusion patterns.

Methods: Three hundred fifty two patients (age >= 18 years) were identified from the Project IMPACT® database that were admitted to the ICU from August 2003 through June 2010 with HF recorded as admission diagnosis. After applying the hospital laboratory-based low limit for hematocrit based on sex (female [37.0%]; male [42.0%]), 310 patients were identified as anemic. Forty two of these 310 patients received PRBC transfusion.

Results: Females were more likely than males to receive PRBC (p=0.03). Mean age of patients receiving PRBC was greater than those not receiving PRBC (p=0.04). Packed red blood cell transfusion was randomly distributed across the three ethnicities considered. Patients receiving PRBC were more likely to have concomitant adverse events without atrial fibrillation (ventricular tachycardia; cardiac arrest) (p=0.03), acute kidney injury (p=0.01), pressor requirements (p<0.01), and requirement for inotropic support (p<0.01).

Conclusion: Anemic patients with heart failure represent a tenuous patient population. Demographic variables including female sex, older age, history or occurrence of adverse events without atrial fibrillation, acute kidney injury, pressor and inotropic requirements predicted PRBC transfusion patterns.