Registry data reveal disparities in care

Comparisons between patients enrolled in randomized controlled trials and those in clinical registries are uncommon. Justin Ezekowitz and co-workers have reported data from the first such comparison of patients with acute heart failure.

The populations of clinical trials are usually highly selected and, therefore, are not accurately representative of patients in the 'real world'. Registries, on the other hand, can be used to understand the characteristics of typical patients and are reflective of daily practice. Ezekowitz *et al.* compared the demographics, presentation, management, and outcomes for 465 patients enrolled in the ASCEND-HF trial and 697 patients in the corresponding registry. Data for the registry was provided by eight treatment centers in Canada.

Many significant differences in baseline characteristics between the two populations were discovered. Those in the registry were older, and had a lower body weight, and higher blood pressure than patients enrolled in the trial. Prior cardiac device implantation and cerebrovascular disease were also more common in the registry, whereas diabetes mellitus and hyperlipidemia were more prevalent in the trial population. Patients in the registry were more likely to be transported to hospital by ambulance, and less likely to receive medications including diuretics, angiotensin-converting-enzyme inhibitors, and statins. Most notably, even after adjustment for confounding variables, mortality among patients in the registry was almost sevenfold higher than that in the trial. The researchers suggest that more comparisons of registry and trial data are needed.

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Original article Ezekowitz, J. A. et al. Acute heart failure: perspectives from a randomized trial and a simultaneous registry. *Circ. Heart Fail.* doi:10.1161/ CIRCHEARTFAILURE.112.968974