Global variation in quality of care among patients hospitalized with acute heart failure in an international trial : Findings from the Acute Study Clinical Effectiveness of Nesiritide in Decompensated Heart Failure Trial (ASCEND-HF)

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Abstract

Background Translation of evidence-based heart failure (HF) therapies to clinical practice is incomplete and may vary internationally. We examined common measures of quality of care in patients enrolled in the international Acute Study of Clinical Effectiveness of Nesiritide in Decompensated Heart Failure trial. Methods and Results Patients were admitted to 398 hospitals for acute HF in 5 regions (North America, n=3149; Latin America, n=658; Asia Pacific, n=1744; Central Europe, n=966; and Western Europe, n=490). Predefined quality indicators assessed at hospital discharge included the following: medications (angiotensin-converting enzyme inhibitors, angiotensin II receptor blockers, β-blockers, aldosterone antagonists, hydralazine/nitrates, statin therapy, and warfarin), use (or planned use) of implantable intracardiac devices, and blood pressure control (<140/90 mm Hg). We determined regional variations in quality indicators as well as the temporal variation of these indicators during the course of the trial. There was significant variation in conformity among different quality indicators, ranging from 0% to 89%. Of all potential performance opportunities, 19 076 of 32 268 (59%) were met, with Central Europe highest at 64%, followed by North America (63%), Western Europe (61%), Latin America (56%), and Asia Pacific (51%; P<0.0001). North America, Central Europe, and Asia Pacific regions demonstrated a modest increase in quality indicator conformity over time, although there was no significant change in other regions. Conclusions Quality of care for patients hospitalized with acute HF varies and remains suboptimal even within a randomized clinical trial, which included quality improvement interventions. Specific measures designed to improve performance measures should be implemented even within multicenter clinical trials..