

THE MANAGEMENT OF LEFT VENTRICULAR SYSTOLIC DYSFUNCTION IN PATIENTS WITH ADVANCED CHRONIC KIDNEY DISEASE.

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Left ventricular systolic dysfunction (LVSD) is frequently observed in patients with advanced chronic kidney disease (CKD) and its presence is associated with a poor prognosis. In the general population, renin-angiotensin system inhibition and beta-blockade are the cornerstones of medical management in patients with LVSD. Although the high quality trials that contributed to this evidence base generally excluded patients with significant CKD, current guidelines advocate that CKD patients with advanced LVSD should be treated with agents that have shown benefit in the general population. The extent to which these recommendations are followed needs further clarification.

We conducted a retrospective study of all patients with advanced CKD followed in our centre as of June 1, 2007. These included chronic dialysis patients (n=299) and those with advanced pre-dialysis CKD actively followed in our multi-disciplinary pre-dialysis clinic (n=177). Echocardiographic, and pharmacotherapy data were sought for each patient. We defined optimal therapy for LVSD as the receipt of both a beta-blocker and either an angiotensin converting enzyme inhibitor (ACEi) or an angiotensin II receptor blocker (ARB). 388 (82%) patients had at least one echocardiogram performed, and 35 (9.0%) had moderate-severe LVSD (ejection fraction < 40%). Of those with moderate-severe LVSD, 22 (62.9%) were receiving optimal therapy; the rate was 66.7% and 60.9 % among pre-dialysis and dialysis patients, respectively. Beta-blockers were more frequently prescribed to patients receiving dialysis (91.3% versus 66.7% among pre-dialysis patients), whereas, pre-dialysis patients were more likely to receive ACEi or ARB, 83.3% versus 65.2 % of the dialysis population. The non-receipt of optimal therapy could not be explained by a tendency to hypotension, hyperkalemia, drug sensitivities or pill burden.

Nearly 40% of patients with advanced CKD and significant LVSD were not receiving evidence-based therapies for LVSD management. Overcoming the barriers to care will be crucial in order to optimize the cardiovascular management of this high-risk population.