

Gender differences in heart failure: results from disease-management-programs

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Introduction: Among cardiovascular conditions, heart failure shows the highest rate of mortality. Despite increased awareness, striking differences in prognosis between men and women with HF still exist in ambulatory health care. In Germany, disease-management-programs (DMP) recognized this need and launched a structured treatment program especially for HF. Indicators assessing successful prevention and quality of care within DMP include among others, referral and prescription rates of prognosis-relevant medications (beta-blockers, ACE-I, AT-1-antagonists).

Aim: To evaluate gender differences in heart failure therapy in the State of North-Rhine Westfalia, Germany.

Methods: Cross sectional analysis of the 2018 cohort (n=84.398, mean age 79±10.2 yrs., male 61.5%). Logistic regression analyses were run on referrals and prescription of beta-blockers, ACE-I and AT-1-antagonists (all, yes/no). Models tested for gender effects and included known covariates e.g. age and duration of participation (in yrs.) and comorbidities (diabetes, lipid disorder, hypertension, smoking, all yes/no).

Results: Logistic regression models indicated that gender significantly affected referral rates, OR 1.15, CI-95% 1.09–1.20 and OR 1.15, CI-95% 1.09–1.20, for referrals to hospitals and other physicians. Men received higher rates of referrals to other physicians and other institutions (26.5 vs. 14.2%) and (6.4 vs. 3.5%) than women. Prescription rates were also significantly associated with gender: OR 1.23, CI-95% 1.19–1.27, OR 1.36, CI-95% 1.29–1.43, and OR 0.79, CI-95% 0.72–0.87, for beta-blockers, ACE-I and AT-1-antagonists, respectively. Men received beta-blocker and ACE-I more often (33.8 vs. 4.4% and 28.6 and 8.1%); women had higher rates of AT-1-antagonist prescription (1.2 vs. 5.5%).

Conclusion: Although, as previously shown work indicated, differences decrease over time, marked gender differences in referral and prescription rates in heart failure still exist in ambulatory health care settings. These results indicate that secondary prevention in women with HF needs to improve.