

# Guideline-led prescribing to ambulatory heart failure patients in a cardiology outpatient service

*El Hadidi, Carl Vaughan, David Kerins, Stephen Byrne, Ebtissam Darweesh, Margaret Bermingham*

## Abstract

Background Guidelines recommend heart failure (HF) patients be treated with multiple medications at doses proven to improve clinical outcomes. Objective To study guideline-led prescribing in an Irish outpatient HF population. Setting Cardiology Outpatient Clinic, Mercy University Hospital, Cork, Ireland. Methods Guideline-led prescribing was assessed using the Guideline Adherence Index (GAI-3), that considered the prescribing of ACE inhibitors and angiotensin receptor blockers; beta-blockers and mineralocorticoid receptor antagonists. The GAI-based target dose was calculated based on the prescription of  $\times 50\%$  of the guideline-recommended target dose of each of the three GAI medications to HF patients with ejection fraction  $\leq 40\%$ . High-GAI was achieved by prescription of  $\times 2$  GAI medicines. Potentially inappropriate prescribing was assessed using a HF-specific tool. Main outcome measure Heart failure guideline-led prescribing assessed using the GAI-3. Results A total of 127 HF patients, mean age  $71.7 \pm 13.1$  years, were identified in the study. Seventy-one patients had ejection fraction  $\leq 40\%$ . Population mean GAI-3 was 65.8%. When contraindications to therapy are considered, the adjusted GAI-3 increased to 72.9%. The target dose GAI was 18.5%. High-GAI management was prescribed to 54 patients (76.1%). A potentially inappropriate medicine in HF was prescribed to 14 (19.7%) patients. Conclusion Most HF patients with ejection fraction  $\leq 40\%$  in this setting received optimal guideline-led prescribing however the proportion of patients achieving the target doses of these agents was suboptimal.

*International Journal of Clinical Pharmacy 2021, January*