

# Heart Failure Prescribing Quality at Discharge from a Critical Care Unit in Egypt: The Impact of Multidisciplinary Care

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## Abstract

Discharge prescriptions for heart failure (HF) patients may not adhere to the clinical practice guidelines. This study aimed to assess the impact of the clinical pharmacist as a member of a multidisciplinary team on the quality of prescribing to HF patients at discharge from a Critical Care Unit (CCU) in Egypt. This was a retrospective cohort study of HF patients discharged from the CCU between January 2013 and December 2017. Guideline Adherence Index (GAI-3) was used to assess guideline-directed prescribing at discharge. Multidisciplinary care was introduced to the CCU on 1 January 2016. The study included 284 patients with a mean age of 66.7 years, 53.2% male. Heart failure with reduced ejection fraction affected 100 patients (35.2%). At discharge, loop diuretics were prescribed to 85.2% of patients; mineralocorticoid receptor antagonists to 54.9%; angiotensin-converting enzyme inhibitors/angiotensin receptor blockers to 51.4%; and  $\beta$ -blockers to 29.9%. Population Guideline Adherence Index (GAI-3) was 45.5%. High-GAI was prescribed to 136 patients (47.9%). Patients with High-GAI were younger; less affected by chronic kidney disease and had fewer comorbidities than those without High-GAI. Prescription of  $\beta$ -blocker increased (24.1% vs. 38.6%,  $p < 0.001$ ) and digoxin utilization decreased (34.7% vs. 23.7%,  $p < 0.049$ ) after the introduction of the multidisciplinary care. The inclusion of a clinical pharmacist in the multidisciplinary care team may have a role in optimizing the prescribing of HF guideline-directed therapies at discharge from this setting.

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