

Management of Patients with Heart Failure: State-of-the-Art in 2020

Heart failure (HF) has historically been associated with a very poor prognosis characterized by progressive functional disability, recurrent hospitalization and, ultimately, death-related directly to cardiovascular causes. Although the incidence of newly diagnosed HF in Canada may be declining,¹ the burden of HF remains high in absolute terms, with a national prevalence greater than 500,000, and persistently high rates of repeat hospitalization.²⁻³ HF admissions are a major driver of overall healthcare costs in Canada,⁴ and newer therapeutic approaches designed to improve mortality, quality of life, and HF hospitalization rates require substantial and ongoing economic investment.

Over the past decade, results from landmark clinical trials have generated much enthusiasm and discussion. Randomized trials here assessing novel pharmacologic agents, structural interventions and surgical procedures have demonstrated significant mortality and morbidity benefits in selected HF patients,⁵ and there are several promising therapies in clinical development. There have also been advances in disease management strategies and refinements in our understanding of optimal patient selection for more advanced therapies. Although HF patients and care providers may be justifiably optimistic in the current era, several challenges remain. For example, it is often unclear whether the positive results from randomized trials of relatively well-selected patients apply to HF patients assessed in clinical practice who have multiple comorbidities, frailty, variable social supports, and limited health literacy. Despite available guidelines and educational tools, knowledge translation efforts have fallen short as a small minority of patients are seen or managed in by HF specialists and a very low percentage of eligible patients have been prescribed optimal doses of guideline direct medical therapies.^{6,7} At a population level, there are several other pervasive challenges including variable access to dedicated HF clinics in Canada; significant variation in HF clinic structure, services offered, and target patient demographics; inadequate resources for multidisciplinary HF care providers; and variable access to diagnostic testing and treatment interventions.⁸

In this supplement, 5 articles will address key topics related to contemporary HF management to highlight current progress and perspectives that will enable clinicians to deliver optimal care. The first of these articles, “Heart Failure Management and Prognosis” provides a comprehensive overview of contemporary HF management, from evidence-based, guideline-directed treatments to strategies for chronic disease management and patient risk-stratification. The second article, “Managing Common Comorbidities in Heart Failure” identifies the complex interaction between HF and other common co-existing conditions, particularly renal disease, anemia, and type 2 diabetes. Recent evidence for managing these comorbidities in the setting of chronic HF is reviewed from a pragmatic point of view. In “Heart

Failure: Novel and Emerging Therapies,” many promising new therapies are discussed along with the current state of evidence for application. These include SGLT2 inhibitors for a broad spectrum of HF patients, percutaneous mitral valve repair for severe functional mitral regurgitation, catheter ablation for atrial fibrillation in HF, and omecamtiv, mecarbil, and vericiguat drug therapies for chronic HF. The fourth article, “Knowledge Translation in Heart Failure,” identifies key care gaps and barriers to implementing HF therapies at a population level in Canada, and suggests several strategies towards optimizing medication titration, facilitating multidisciplinary management and integrating care with multiple providers. Finally, in “Heart Failure in the Young: The Patient Perspective and Lived-Experience,” HF patients provide critical insight into the impact of the condition on physical, psychological and social well-being. Those with the lived experience in HF explore unmet needs for younger patients and advocate for incorporating patient-important outcomes into all measures of quality HF care.

We hope this supplement to the *Canadian Journal of General Internal Medicine* will provide you, as a practicing clinician, the means to deliver state-of-the-art care to your patients with HF.

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