Heart Failure Management: Continuing to Fail or Signs of Success?

Editorial to: “Impact of clinical characteristics and management on the prognosis of unselected heart failure patients” by R. Eschalier et al.

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Over the last three decades the treatment of heart failure (HF) has seen a number of changes that have resulted in a stepwise improvement in the prognosis of patients [1]. From the use of ACE inhibitors to the implantation of resynchronisation pacemakers there has been an incremental gain in life expectancy in patients with HF. Encouragingly progress continues as new pharmacological therapies further improve the prognosis of patients with HF over and above best current treatment [2]. Yet translating these successes into meaningful gains in population level prognosis has been difficult [3]. A number of factors are responsible. The constellation of comorbidities that accompany a diagnosis of HF reduces the number of patients eligible to receive certain therapies. With more costly therapies such as cardiac resynchronization therapy, economic considerations and availability of expertise to implant devices often limit their use. Large registries confirm our consistent failings; evidence based therapies are underutilized in those with HF [4]. At the same time we have witnessed a change in the epidemiology of HF. The aging population coupled with better secondary prevention in those with coronary heart disease have conspired to increase the incidence of HF and the age at which people first develop HF [3]. Despite this there are encouraging reports from across the globe that in developed countries the incidence of HF is falling [3, 5], another success. While we assimilate the information from clinical trials, registries and epidemiological studies to build a contemporary picture of HF, few studies are able to provide a comprehensive overview of HF.

The study by Eschalier et al. [6] in this issue is uncommon in that the investigators report the incidence, characteristics, treatment and prognosis of patients with HF presenting to hospital. Such studies have been rare in the past, but in the era of “big data” such studies are likely to be more common as they become easier to undertake. Using a validated database that records the information collected from hospital claims and reimbursements for dispensed drugs the investigators were able to provide a detailed report of the contemporary epidemiology, treatment and prognosis of patients with HF in France. Their results mirror our successes and failures.

Similar to other countries, Eschalier et al. report that the incidence of HF was 1.17 per 100,000 population in their health care system beneficiaries. They also observed that the age of patients first presenting to hospital with HF has increased so that over 50 % of patients were over 80 years of age. This success is unfortunately accompanied by more worrying evidence of failure. In the study only a small proportion of patients were receiving guideline recommended, evidence based therapy. Only 38 % of patients were receiving an ACEI and betablocker and only 8 % received an ACEI, betablocker and mineralocorticoid antagonist (MRA). This low percentage may be in part due to the time period covered by the study by Eschalier et al. They examined hospitalizations between 2009 and 2011, therefore evidence for the use of MRAs in patients with less severe HF was not available until the end of the time period covered [7]. Furthermore, only prescriptions in the 30 days prior to or 60 days following admission were counted. It is unknown whether these poor rates would be higher if a longer time period had been assessed. Regardless of the reason, these results confirm prior reports of our failure to treat a substantial proportion of patients with HF with recommended

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therapies [4]. However, unlike other observational studies the authors were able to demonstrate that, after adjustment, the use of evidence based medications was associated with better survival over a median of 40 months. Other epidemiological studies, limited by the observational nature of the data and confounding by indication, often fail to replicate the beneficial effect of medications on outcomes [8].

One of the major questions posed by this report is how we might improve such poor rates of use of evidence based therapies. Certain therapies such as the use of implantable cardioverter defibrillators and cardiac resynchronization therapy will always be limited by cost and availability. Given the specific indications for these implantable therapies, improving the use of evidence based pharmacotherapies has the greatest potential to improve population level outcomes in HF. A number of approaches have been tried. At the heart of these is the development of guidelines by the main cardiovascular societies in an attempt to synthesise the growing body of evidence [1, 9]. Initiatives to improve prescribing in hospitals, via registries and audit, may improve prescribing rates [10]. Incentivising physicians can improve prescription rates [11] as can enrolling patients in disease management programs [12]. Whatever methods are used, their success will require monitoring. This will be best achieved by studies of unselected, representative populations with HF that are adequately characterised and followed. Routinely collected healthcare datasets that record such information have the potential to become the cornerstone of this monitoring effort and must be fully exploited. While we continue to examine trends in the epidemiology and treatment of HF we must be mindful of the prognosis of patients with HF. As described by Eschallier et al. [6] mortality is still high. In hospital mortality was high with around 10 % dying in hospital and 48 % dying by 3 years. While our successes continue to accrue [2] we must be mindful of these underlying failings if we are to truly make substantial progress in treating HF.

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