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It is with great pleasure that we introduce to you, our readers, to volume 5, issue 2 of *Cardiac Failure Review*. This issue we are focusing on clinical syndromes and the impact and therapy of selected comorbidities commonly seen in the heart failure (HF) patient.

Stolfo and Savarese take another look at the landmark trials of angiotensin-converting enzyme (ACE) inhibitors in HF from the perspective of the more elderly patient. It is well known that patients enrolled in randomised clinical trials do not accurately reflect real-world HF patients, especially with regard to age. A relative lack of evidence, combined with a heightened risk of side-effects and polypharmacy in the elderly, with the risk of more adverse drug interactions, often leads to relative under-treatment of older patients. Despite uniform guideline recommendations for first-line ACE inhibitor use in HF with reduced ejection fraction (HFrEF) patients, irrespective of age, there is persistent evidence of underuse of these agents in the elderly.

The mean age of patients with HF is increasing, exceeding 75 years in most series, yet the mean age in HFrEF trials is over a decade younger. In large registry analyses, about 20% of patients aged >80 years have been shown not to receive ACE inhibitors/angiotensin receptor blockers (ARBs). Older adults are at higher risk of cardiovascular events, and thus may potentially benefit from HF medications even more than younger patients. The authors review the major reasons for underuse of these agents in the elderly, including chronic kidney disease, hyperkalemia and drops in systolic blood pressure. They believe that careful monitoring, modification of diuretic dosages and the use of potassium binders may prevent or correct these features being the reason for underuse of ACE inhibitors or ARBs.

They remind us that in the Euro Heart Failure Survey II the use of these agents was associated with improved outcome in octogenarians even after adjustment for confounding factors. They also investigated the association between renin-angiotensin-aldosterone system inhibitor use and outcomes (i.e. all-cause mortality, all-cause mortality or HF hospitalisation) in the SwedeHF registry, which includes one of the largest cohorts of HFrEF older patients worldwide. Of 6,710 HFrEF patients aged >80 years and through the technique of propensity score matching, they reached the conclusion that even in these older HF patients, survival could be significantly improved with active therapy and only nine patients would need to be treated to save one life in 1 year. These findings should be interpreted as hypothesis generating for future prospective trials.

Papadimitriou and colleagues then offer us an unusual perspective on our usual approach to care in HF, that of what they call 'symptom-based HF management'. First, they question the reliability, accuracy and reproducibility of the symptom-based classification which we almost all use, the New York Heart Association (NYHA) class, arguing instead for more objective measures of activity tolerance, such as the 6-minute walk test or cardiopulmonary exercise testing, despite practical limitations in some patients. Rather like our first paper, they review how common undertreatment of HF is in the community, with the Change the Management of Patients with Heart Failure trial revealing in real-life conditions that only 1% of patients were receiving all guideline-directed medical therapy at target doses. They argue for treating HF more aggressively at earlier stages and rigorously, even in more advanced stages, based on parameters more objective than the NYHA class. They conclude that "ongoing and future clinical trials will provide the data necessary to advance this treatment strategy among healthcare professionals and patients as a significant culture change". Yet we all know how difficult true culture change can prove to be.

Iacovoni and colleagues then review the treatment of patients following hospitalisation for acute decompensated HF, one of the largest areas of HF where treatment trials have failed so consistently. They argue that the high burden and cost of early rehospitalisation after discharge should be avoided, and in addition, that it has a negative influence on subsequent survival. They argue for a targeted yet more aggressive

approach to HF drug therapy during hospitalisation and in the immediate post-discharge period, and that if implemented consistently, this could improve HF outcomes over the longer term.

Stewart and colleagues review the evidence for seasonal peaks in the incidence of and hospitalisations for HF. They present a model of 'seasonal flexibility' to explain the spectrum of individual responses to climatic conditions. They argue (and apologies for the oversimplification) that the way a society adapts and responds to climatic variations may be more important than extremes of weather experienced per se.

Later in the issue, Brahmhatt and Cowie review recent trials of telemonitoring in HF care. Telemonitoring with the use of audio, video and other telecommunication technologies to monitor patient status at a distance has advanced significantly in recent years. This field is large and ever changing, and of course each trial depends both on what is studied and the background care in the control group. Approaches can vary from structured telephone support, standalone home devices – which can measure blood pressure, heart rate, weight and oxygen saturation – implantable electronic devices and most recently, 'wearable' technologies, including patches, watches or textiles that can monitor certain functions, including ECG, body temperature, blood sugar concentration and body posture.

Cross and colleagues review hospice use in HF patients, arguing that hospice care options are significantly underutilised in this setting. Defining hospice care as "team-based palliative care typically reserved for those with a life expectancy of 6 months or less", they review disease, policy, clinical and other factors which affect the use of hospice care in HF. They also list seven recommendations for the optimisation of hospice care for HF.

Lastly, we have excellent summaries on important comorbidities in HF, aortic valve disease, cancer and the effect of anti-cancer drugs and the emerging field of study of the effect of diet on the gut microbiome and how this could affect the condition of the HF patient. ■