Chronic heart failure: time to recognise this major public health problem

The Canberra Heart Study findings are a wake-up call to those unaware of the extent of the condition

Chronic heart failure is a major and growing public health issue that affects all Western countries. Accordingly, many countries (eg, Scotland[1] and Sweden[2]) systematically monitor its population prevalence and overall impact on the health care system. However, public awareness of the condition remains low.[3] Unfortunately, in Australia, apart from sporadic initiatives such as the NSW Chronic Care Collaborative, heart failure remains the "Cinderella" of health issues — hardly registering on the radar of key health care providers, regulators, relevant government bodies and the general public. For example, less than one in five eligible patients receives specialist heart failure management after hospitalisation for acute heart failure.[4] Undoubtedly this is at least partly explained by the fact that we do not know the true magnitude of the problem in Australia. It is time for us to recognise heart failure as a major public health issue that cripples hundreds of thousands of Australians and places a substantial burden on the health care system.

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The facts from overseas population studies are plain and startling. Depending on how the condition is defined, anywhere between 3% and 9% of the adult population has heart failure, and a similar proportion has "silent" left ventricular dysfunction.[5] Moreover, the incidence of heart failure is still rising. Indeed, it is the only cardiovascular condition not to experience a substantial decline in both incidence and prevalence over the past 20 years (taking into account the progressive ageing of populations).[1] There are several reasons for this increase. Firstly, the incidence of heart failure increases with advancing age. In Australia, the proportion of people aged over 65 years (in whom heart failure prevalence is >10%) will double over the next 50 years.[2] Secondly, improvements in diagnostic techniques such as echocardiography have enhanced the ability to make a definitive diagnosis. Thirdly, treatment of heart attack has improved to the extent that patients who previously died of large myocardial infarctions are now able to survive. Finally, heart failure treatments themselves are keeping patients alive for longer and thus contributing to an ever-expanding pool of affected Australians.

Can overseas data on prevalence be extrapolated to the Australian population? While the answer to this question is a qualified "yes", specific issues in Australia relating to treatment approaches, access to diagnostic and health care services and the ethnic mix of the population may affect prevalence figures.[5] Moreover, given the public health importance and impact of heart failure, it would seem reasonable to develop an Australia-specific response based on known rather than speculative facts. Thus there is an urgent need for a large-scale, definitive, Australia-wide epidemiological study to ascertain aetiological factors, diagnostic approaches and management of this condition in the Australian community.

In this context, the Canberra Heart Study,[6] published in this issue of the Journal (*page 151*), is an excellent start in helping to determine the true magnitude of the heart failure problem in Australia. The findings of this well conducted community-based study are a wake-up call to those unaware of the extent of the condition. Not only were 6.3% of the population surveyed found to have overt symptomatic heart failure, but there was a high proportion of patients with subclinical heart failure (left ventricular dysfunction in the absence of symptoms).[6] The study also noted a significant proportion of patients with so-called "preserved systolic function" heart failure (ie, symptoms of the condition but with preservation of systolic ventricular function and pointers on echocardiography to impaired relaxation of the ventricle during diastole).

The Canberra Heart Study is not without some methodological problems (eg, a relatively small sample size, and thus few positive diagnoses for heart failure; under-participation of elderly women, who may well have added to the burden of diastolic heart failure). Moreover, as with any study of heart failure, the definition of the condition is always fraught with uncertainty, although it appears to have been quite reasonably addressed in this analysis.

Complexity in diagnosing heart failure is one of the main reasons for under-recognition of the condition. Indeed, there is no single agreed definition, and the forthcoming update of the current National Heart Foundation/Cardiac Society of Australia and New Zealand guidelines on heart failure[7] will propose a further modification to earlier definitions. Heart failure is a syndrome — a cluster of signs and symptoms that require detailed investigation before arriving at a presumptive diagnosis. There are no definitive tests to confirm the diagnosis. Furthermore, as presenting symptoms may be non-specific, heart failure can masquerade as, and be masked by, many other conditions, particularly in elderly people. A recent Australian analysis describing barriers to diagnosis and management of heart failure in the primary care setting points to some of the difficulties of making a definitive diagnosis.[8]

Nevertheless, it is important that a definitive diagnosis be made because, at least for systolic left ventricular dysfunction (whether symptomatic or not), appropriate management can have a great impact on disease progression, symptoms and survival.

Heart failure management is complex, involving a multidisciplinary approach, polypharmacy in drug prescribing, and ancillary modalities that may include exercise, device therapies (eg, cardiac resynchronisation, implantable defibrillators) and surgical procedures.

Early detection of subclinical heart failure (to prevent progression to symptomatic disease) and treatment of known risk factors will be major foci of research and clinical interest in the evolution of future heart failure management strategies.

In summary, the authors of the Canberra Heart Study[6] have done the Australian community a great service in providing epidemiological data to show that heart failure truly is a major public health issue in Australia. The problem requires the type of national response that has been initiated in other Western countries. This regional study should be regarded as the critical

stimulus for a national study that would provide a broader, more detailed analysis of the epidemiology, health care burden and management of heart failure in Australia. Without this, Australia will continue to fall behind other Western countries in improving the nation's health by focusing on prevention and treatment of this highly debilitating and deadly condition.

Henry Krum
Director, NHMRC Centre of Clinical Research Excellence in Therapeutics
Department of Epidemiology and Preventive Medicine and Department of Medicine
Monash University and Alfred Hospital, Melbourne, VIC
henry.krum@med.monash.edu.au

Simon Stewart
National Heart Foundation Chair of Cardiovascular Nursing
Division of Health Sciences, University of South Australia, Adelaide, SA
and Professor of Health Research, University of Queensland

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