
The Menzies Centre for Health Policy

CHRONIC HEART FAILURE (CHF)

Policy Issues Paper

What is chronic heart failure?

Chronic heart failure (CHF) is a condition where the pumping action of the heart is sub-optimal. It can result from a variety of diseases that damage or overload the heart, notably heart attack, high blood pressure or a damaged heart valve. It can occur suddenly, but more commonly becomes apparent over years. People with mild heart failure have few symptoms but in more severe cases they may experience chronic tiredness, reduced capacity for physical activity and shortness of breath. Once diagnosed, it is often associated with poor survival, not dissimilar to disseminated cancer.

Risk factors

The major risk factors for CHF are high blood pressure, a previous heart attack, and heart valve disease. Other less common but serious risk factors for CHF are diseases of the heart muscle (cardiomyopathy) due to alcohol abuse or infections, diabetes and obesity.

Prevalence

Despite well-known clinical features, CHF is often difficult to diagnose. Experts suspect that it is widely under-diagnosed, particularly in women, old people and obese people.

Current estimates of the incidence and prevalence of CHF in Australia are based on a study by Clark et al. (2004) who used Australian Bureau of Statistics (ABS) population data combined with contemporary epidemiologic data from the UK. According to this study, 187,078 Australian men and 137,524 women had symptomatic CHF in 2000, with 22,000 new cases or 1.2 patients per 1,000 population.

The AIHW estimates for the prevalence and incidence of the disease, also based on overseas findings are as follows (AIHW, 2004):

- prevalence of CHF is 4% of the population over 45 years old, which is equal to over 300,000 current patients with CHF in 2000,
- incidence of HF is approximately 30,000 individuals per year, which is equal to 0.4% of population over 45 years.



As the diagnosis of patients with mild heart failure is commonly missed, the actual numbers could be as high as twice these estimates.

There is a lack of data about the prevalence of CHF among Indigenous Australians. However, in 2001-02, hospitalisation for heart failure among Aboriginal and Torres Strait Islander People was approximately two to three times that of other Australians (AIHW, 2004).

Mortality

Heart failure is a major cause of illness and the third largest cause of death among heart, stroke and vascular diseases, claiming 2,729 lives in Australia in 2002 (AIHW, 2004). Heart failure as the underlying cause of death accounted for 8.3% of all deaths attributed to circulatory disease from 1997-2003 (Najafi et al., 2006).

The AIHW data demonstrate a dramatic increase in CHF mortality with increasing age. Deaths from CHF occur mainly among older Australians, with 90.4% of the deaths occurring among those aged 75 years and over (AIHW, 2004).

The CHF mortality ratio is significantly higher in Aboriginal and Torres Strait Islanders, 3.8 times more in males and 2.2 times more in females, compared with other Australians.

There has been a substantial decline in the mortality from CHF over the last 20 years in Australia.

Burden of disease

CHF is associated with poor prognosis and markedly reduced quality of life. Patients with heart failure have a median survival of only 1.7 years in men and 3.2 years in Women. CHF is one of the most common reasons for hospital admission and GP consultation in people aged 70 years and older.

Management of CHF

Management involves prevention, early detection, slowing of disease progression, relief of symptoms, minimisation of exacerbations, and prolongation of survival.

Key therapeutic approaches or considerations include:

- physical activity, diet and risk-factor modification
- a range of medications
- implanted pacemakers and defibrillators
- surgical approaches that may include myocardial revascularisation, insertion of devices and cardiac transplantation; and
- post-discharge multidisciplinary management programs and palliative care strategies.

CHF is often accompanied by important co-morbid conditions that require specific intervention. These include concomitant ischaemic heart disease, heart valve disease, arrhythmia, arthritis, gout, renal dysfunction, anaemia, diabetes and sleep apnoea.

Ideally, specialist opinion should be obtained for all patients with CHF, in view of the severity, the symptomatic limitation, the prognosis and the complex nature of the condition and its management. Specialist care has been shown to improve outcomes, reduce hospitalisation and improve symptoms in patients with heart failure.

The cost of CHF

Based on estimates of incidence of CHF in Australia, the total cost of CHF-related hospitalisation in Australia during 2000 would have been \$840 million. The total direct cost of CHF in 2000 was estimated in excess of \$1 billion. The majority of this cost (69%) is hospital admissions, and 18% is medications.

The Baker Heart Research Institute estimates that CHF is responsible for over 100,000 hospital admissions and 1 million days of hospital stay.

Suggested Areas for Policy Action

1. Improved awareness and diagnosis

There is potential to improve clinical diagnosis and management of heart failure by developing and disseminating targeted educational and information tools.

Also there is under-use of appropriate diagnostic testing for heart failure (specifically, echocardiography) in Australia.

In Indigenous communities, need to promote measures to prevent rheumatic fever and improve management of people with rheumatic heart disease to prevent heart failure.

2. Improved treatment

Implement best-practice guidelines and protocols for diagnosing and managing heart failure in acute and primary care settings and ensure that there is a process to update the guidelines so that they remain current.

Proven pharmacological interventions for CHF are often not used or are not used at the appropriate dose. Both clinicians and patients need to be educated about the value of established medication protocols.

3. Keeping patients out of hospital.

Consumer involvement in managing heart failure has been shown to improve concordance with medication regimes and attendance of therapy sessions, leading to a reduction in unnecessary hospital admissions. Home visits by a nurse and pharmacist following a hospital admission for heart failure significantly reduces the number of unplanned readmissions.

Need to:

- Develop better communication systems and networks to strengthen partnerships between hospitals, specialists and general practitioners.
- Develop processes to improve out-of-hospital patient care and prevent unnecessary hospital readmissions — this may include care planning, post-discharge follow-up and support of self-management.
- Develop and identify models to ensure quality of care for patients in non-urban areas that incorporate measures to support health professionals and patients, particularly those supporting self-management.

4. Data and research

Need to develop a minimum data set enabling the correct diagnosis, improved management and monitoring of heart failure patients to enable monitoring and evaluation of current practice and outcomes.

References

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