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Improving outcomes for rural and remote patients with chronic heart failure

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Chronic heart failure (CHF) is a cardiovascular disease of major public health importance. In the Cardiac Awareness Survey and Evaluation (CASE) Study,[1] 13.2% of Australians over the age of 60 years attending their general practitioner were diagnosed as having heart failure. In this survey, levels of use of basic diagnostic testing such as the electrocardiogram and chest X-ray were high. However, echocardiography was used only in a minority of patients, despite the fact that it is critical for the objective assessment of cardiac function.[2] Echocardiography is more difficult to access in rural and remote areas compared to metropolitan areas. Indeed, preliminary analysis of the CASE data according to rural and remote classification has demonstrated low utilisation of echocardiography in the diagnosis of new heart failure in the most remote sectors of the community.

There have been significant recent advances in the treatment of patients with CHF. The combination of angiotensin converting enzyme inhibitors and beta blockers have roughly halved mortality rates for this condition.[3] Multidisciplinary community based strategies have provided substantial additional benefit, in part by improving patient compliance with the above therapies.[4,5] These strategies include nurse based visits to the home and 'shared care' management involving the GP, specialist physician, exercise rehabilitation staff and nutritional advice. Such interventions have substantially reduced readmissions to hospital;[4,5] an important marker of the impact of the disease on the individual patient and the overall cost to the community.

Given the public health burden of CHF within the community, difficulties in patient access to health services in rural and remote areas, and the relative high morbidity and mortality of this disease, new strategies are urgently required. However, the allocation of health care resources in rural areas makes delivery of nurse based home visits and access to multidisciplinary management especially difficult. One obvious solution is to provide individualised, evidence based telephone support[6] to the rural and remote heart failure patient. This model has not as yet been specifically examined in such a population and Australia is an ideal environment in which to test it.

The Chronic Heart failure Assistance by Telephone (CHAT) study is currently assessing such telephone support in 666 patients and 300 general practices throughout rural and remote Australia. The primary endpoint of this study includes all cause death and hospitalisation.

In addition, assessment of the patient's overall clinical status will be determined by various quality of life scales. Important components of this evaluation also include the cost effectiveness of the intervention and acceptability of this system of care by patients and their treating health professionals.

The logistic issues in setting up such a study are huge. New technologies are being employed with regard to the telephone support infrastructure. Recruitment of GPs across the breadth of the nation has been a major challenge. Nevertheless, when completed, this study should provide important information regarding the role of this approach in CHF patients in rural and remote areas.

The clinical implications of this study are potentially far reaching. The system of care being evaluated is in reality a generic platform upon which interventions to optimise and maintain patient's health in other chronic diseases states can be utilised. Thus, individualised high level telephone support of the rural and remote patient with conditions such as diabetes mellitus, osteoarthritis and chronic airways disease may become a viable therapeutic option in the future.

Management of cardiovascular disease in general, and CHF in particular, has made substantial progress in recent years. It is important that these advances are shared equally among all Australians. If successful, the management strategies employed in the CHAT CHF study will be an important contributor to addressing the inequities in the management of this and other chronic diseases in rural and remote Australia.

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Conflict of interest: the authors are part of the CHAT Study Group.

References

1. Krum H, Tonkin AM, Currie R, Djundjek R, Johnston CI. Chronic heart failure in Australian general practice. The Cardiac Awareness Survey and Evaluation (CASE) Study. Med J Aust 2001;174:439–444.
2. National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand Chronic Heart Failure Clinical Practice Guidelines Writing Panel. Guidelines for management of patients with chronic heart failure in Australia. Med J Aust 2001;174:459–466.
3. Cleland JG, Swedberg K, Poole-Wilson PA. Successes and failures of current treatment of heart failure. Lancet 1998;352 (Suppl 1):SI19–SI28.
4. Rich MW, Beckham V, Wittenberg C, et al. A multidisciplinary intervention to prevent the readmission of elderly patients with congestive heart failure. N Engl J Med 1995;333: 1190–1195.
5. Stewart S, Marley JE, Horowitz JD. Effects of a multidisciplinary, home based intervention on unplanned readmissions and survival among patients with chronic congestive heart failure: a randomised controlled study. Lancet 1999;354:1077–1083.
6. Grancelli H, Varini S, Ferrante D, et al. GESICA Investigators. Randomised trial of telephone intervention in chronic heart failure (DIAL): study design and preliminary observations. J Card Fail 2003;9:172–179.

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