NICE try but a long way to go in heart failure

The pharmacological treatment of patients with chronic heart failure has changed dramatically over the past 25 years. This change began with the demonstration of the beneficial effects of the combination of hydralazine and isosorbide dinitrate in the V-HeFT-I (Veterans Administration Co-operative Study) trial.[1] This was followed by the demonstration of the beneficial effects of angiotensin-converting enzyme (ACE) inhibitors,[2,3] beta blockers,[4-6] spironolactone[7] and, most recently, candesartan in the CHARM (Candesartan in Heart Failure – Assessment of Reduction in Mortality and morbidity) study.[8] There have also been important trial results demonstrating that certain agents are not beneficial, most notably the phosphodiesterase inhibitors.[9] The role of implantable cardioverter defibrillators and biventricular pacemakers is the subject of ongoing trials. At present, these devices have been established to be of benefit in certain patient subgroups.[10,11] Thus, compared with 25 years ago, when all that could be offered to chronic heart failure patients was symptomatic relief with diuretics and digoxin, we now have five more classes of agents which improve symptoms and/or prolong survival. This, together with the increasing role and sophistication of implantable devices, demonstrates that the management of chronic heart failure is growing in complexity.

The publication of a new book *Tailoring heart failure therapy*, edited by Willenheimer and Swedberg, is thus timely.[12] The book, which is easy to read and well referenced, would be of value to all clinicians who care for patients with chronic heart failure. It gives a good overview of the major clinical trials and deals with the management of chronic heart failure in particular subgroups. The chapters on cardiomyopathy, chronic renal failure and arrhythmia are particularly valuable, though a chapter on heart failure in the young patient might have been more appropriate than the chapter on heart failure in the elderly, since heart failure is largely a condition of old age.

Vast knowledge base

The task now facing us is to ensure that this vast (and ever-increasing) knowledge base is applied fully and uniformly across the country, so that all patients with chronic heart failure receive the optimum treatment. This will vary from patient to patient, hence the importance of 'tailoring'.

The National Institute for Clinical Excellence (NICE) has recently published its views on how this should be achieved in a document entitled *Management of chronic heart failure in adults in primary and secondary care*.[13] The publication runs to 40 pages, with a more detailed version (163 pages) available on the NICE website. The document predominantly concentrates on reviewing the literature on chronic heart failure. There are few recommendations as to how health care should be delivered to chronic heart failure patients in the NHS setting. The general impression is that, despite the title, chronic heart failure patients would be managed largely, if not exclusively, by the general practitioner. This perpetuates the traditional NHS model of care, where the general practitioner acts as a gatekeeper to consultant care, which is typically hospital-based. Is this an appropriate model of care for a complex, chronic, incurable condition where relapses are common? One may contrast this with the recommended model of care for patients with cancer. It is recommended that patients with cancer should be seen by an appropriate specialist within two weeks of the diagnosis being suspected by the general practitioner.

What is the evidence to support the traditional gatekeeper model of care in heart failure? None is cited in the document. Indeed, a finding from a focus group exercise conducted by NICE was that patients felt that their general practitioners lacked knowledge on chronic heart failure and were reluctant to refer them to a specialist. This suggests that, at least from the patient's perspective, the gatekeeper approach is less than satisfactory.

There is a substantial body of evidence to show that a multidisciplinary team approach improves symptoms, reduces hospital admissions and possibly prolongs life, compared to traditional standard care.[14,15] The document makes reference to a multidisciplinary team and states that chronic heart failure management is likely to be shared between healthcare professionals in both primary and secondary care. No details or recommendations on how this would be implemented are given, however. Thus, whether an integrated multidisciplinary team approach would be taken, as has been recommended,[16] would depend on the vagaries of the local decision-making process and would lead to inequalities in the provision of care across the country. Such inequalities are currently widespread for the delivery of care of cardiovascular disease and have recently been highlighted in the media.[17] In fact, the division

of healthcare provision between primary and secondary care is outdated and inappropriate, particularly for chronic conditions such as heart failure. Such a division militates against the provision of integrated care to the patient.

Management of chronic patients

The document also gives fairly detailed advice on how to manage chronic heart failure patients, including the need to take a history and perform an examination. Heart failure is a difficult condition to diagnose in general practice: only 29% of patients suspected on clinical grounds of having the condition have left ventricular systolic dysfunction.[18] Other conditions, such as obesity and lung disease, are often the underlying cause of the patient's clinical features. The document gives sound advice on the use of the 12-lead ECG, chest radiograph and, where available, brain natriuretic peptide (BNP) to help identify patients who are unlikely to have chronic heart failure.

For patients still suspected of having chronic heart failure after incorporating these investigations into the clinical assessment, an echocardiogram is recommended, in line with European guidelines.[19] The logistics of achieving this, however, are not addressed. Many general practitioners do not have access to echocardiography and, where they do, there is often a wait of many weeks or months. This is a result of both lack of resources and inefficient and inappropriate use of the resources that are available.

The document makes further recommendations depending on the result of the echocardiogram. For example, it is recommended that patients with chronic heart failure due to valve disease should be referred to a specialist. It is not stated how the general practitioner (with little, if any, training in echocardiography) will be able to determine whether the virtually ubiquitous mitral and tricuspid regurgitation present in patients with chronic heart failure is the cause of the heart failure or a consequence of it. Similarly, aortic valve calcification is common in older patients and there is a real risk that patients with severe aortic stenosis and low cardiac output would not be identified and would consequently be mismanaged.

It is also recommended that patients with diastolic dysfunction should be referred to a specialist, though no definition of diastolic dysfunction is given. Many patients with cardiovascular disease, preserved left ventricular systolic function and symptoms of chronic heart failure have diastolic abnormalities.[20] It is not clear to what extent (if at all) these are the cause of the symptoms. Thus, the general practitioner may, by default, refer all patients with suspected heart failure and preserved left ventricular systolic function for a specialist opinion. This is clearly an impossible undertaking for the limited number of specialists currently available.

Patients with reduced left ventricular systolic function and atrial fibrillation are recommended for specialist referral. This is a laudable aim but is impractical at present. Atrial fibrillation is common in patients with heart failure. In the CHARM trial,[8] where patients had a mean age of 66 years, 27% of patients were in atrial fibrillation. In ordinary clinical practice, where the median age of patients with chronic heart failure is 75 years, the prevalence of atrial fibrillation may be in excess of 50%.[20] The reason for advancing such a referral policy is for the specialist to determine whether reversion to sinus rhythm is appropriate, although no evidence base exists for such a strategy. Anticoagulation is recommended for patients with chronic heart failure who are in atrial fibrillation, which is recognised to be good practice. Patients with co-morbidity complicating heart failure are also recommended for specialist referral.

The document recommends the use of diuretics, ACE inhibitors, beta blockers and spironolactone. It is not clear how simple recommendations along these lines on the use of ACE inhibitors, for example, will achieve the goal of full therapeutic doses when previous exhortations have failed. Further, at present, beta blockers are only licensed for use by doctors with experience in the management of heart failure.[21] Many general practitioners may be reluctant to prescribe beta blockers under these circumstances.

Summary

In summary, the NICE recommendations reproduce the standard recommendations of the European Society of Cardiology for the pharmacological management of chronic heart failure. They are, however, vague with regard to details on how treatment should be delivered in the context of the NHS, where inequalities in the provision of care are widespread.

It would have been nice to have clear recommendations requiring all Strategic Health Authorities to establish multidisciplinary teams in their localities with appropriate healthcare professions (medical and non-medical).[16] This would go a long way towards removing the postcode lottery of the provision of care. Further work is required to devise recommendations on how the multidisciplinary teams would deliver comprehensive seamless care to all chronic heart failure patients. Within the NHS at present there are inadequate numbers of appropriately trained staff. The various medical and non-medical specialist societies should give consideration to developing training programmes so that all members of the multidisciplinary team can train in the aspects of chronic heart failure appropriate to their discipline. Integrated care along these lines would also negate the concept of referral to a 'specialist', frequently referred to in the NICE document but not clearly defined.

Conflict of interest

None declared.

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Andrew Owen
Consultant Cardiologist
Kent and Canterbury Hospital, Ethelbert Road,
Canterbury, Kent, CT1 3LP.

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