The British Society for Heart Failure 12th Annual Autumn Meeting

Highlights of this year's British Society for Heart Failure (BSH) meeting, held in November in London, included a call for specialist heart failure units which could see more patients receiving optimum treatment, how to treat 'difficult' cases and how devices are showing benefit in those patients with less severe disease.

Optimising care

UK hospitals should set up acute heart failure units to help raise standards of care, according to Professor Henry Dargie (Golden Jubilee National Hospital, Glasgow).

Presenting the inaugural Philip Poole-Wilson memorial lecture (see box), Professor Dargie said that there have been great improvements in heart failure treatment, with effective drugs, devices and interventions, plus a multidisciplinary team approach. In addition, clinical trials have shown a 50% absolute reduction in heart failure mortality with modern treatments, proving what can be achieved with specialist care.

But trial results are not being reproduced in clinical practice and mortality from heart failure remains high.

Better organisation of care is needed and heart failure care should "move towards myocardial infarction (MI) status", Professor Dargie suggested, emphasising that coronary care units underlie the improved treatment of MI. The reorganisation of stroke care within specialist stroke units has also been a success. "The case for heart failure units is overwhelming," he said. "Acute heart failure will be more easily identified and treated in a specialist setting. It is not enough to say that a patient has heart failure. We have to know what is causing it. This is not a simple issue which is why specialist care is very important."

A heart failure unit could take patients from hospital clinics, acute admission units, primary care, and also MI patients with acute heart failure in coronary care units.

Within a specialist unit it would be easier to make sure that patients receive optimum treatment. Advanced therapies, such as devices, are currently used much less than the National Institute for Health and Clinical Excellence (NICE) recommends and this is partly because patients who could benefit are not being identified.

Professor Dargie commented that the reduction in heart failure mortality which could be obtained by better use of the available therapies was likely to be much greater that the reduction in MI mortality from the move to primary percutaneous coronary intervention. He called for a feasibility study of heart failure units.

He also emphasised the need for a UK trial of ventricular assist devices (VADs) for destination therapy. Professor Poole-Wilson had been one of many people trying to set up such a trial. "We should redouble our efforts as evidence is crucial," he said.

Audit results disappointing

Dr Theresa McDonagh (Royal Brompton Hospital, London) reported the latest data from the National Heart Failure Audit. She pointed out that while heart failure prognosis has been steadily improving in areas where there is good specialist care, the national data are more disappointing.

The data cover patients admitted to hospital in England and Wales with a diagnosis of heart failure. They show 30% one-year mortality. This is strongly related to age: mortality is 6% in patients aged under 45 years, increasing to 48% in patients over 85 years. One-year mortality is higher in patients admitted to a general medical ward than in those treated on a cardiology ward.

The audit shows in-hospital mortality of 10.5%, which is higher than in recent European and US surveys. Access to investigations in secondary care is better than in a 2005 Healthcare Commission survey and there is also improved discharge prescribing of evidence-based therapy.

Dr McDonagh encouraged participation in the audit to ensure that reliable data are obtained. To date, 71% of acute trusts have registered for the audit and 60% of those have submitted data.

In primary care, Dr Ahmet Fuat (Carmel Medical Practice, Darlington) said that several aspects of heart failure care have improved but there is still under-prescribing of beta blockers (the recent addition of beta blocker prescribing as a Quality and Outcomes Framework clinical indicator might help here) and a need for more uptitration of ACE inhibitor/angiotensin receptor blocker therapy. Better collaboration across primary, secondary and tertiary care is also required: "Integrated care is the way forward," he said.

Encouraging better use of CRT and ICD

Simon Williams (Wythenshawe Hospital, Manchester) reviewed advanced heart failure care and highlighted the low use of cardiac resynchronisation therapy (CRT) and implantable cardioverter-defibrillators (ICD) relative to other Western European countries. To some extent CRT use was being held back by the NICE requirement for echocardiographic measures of dyssynchrony. But he said that several centres no longer select CRT patients on this basis. At his hospital, any patient with a QRS duration >120ms on ECG is generally put forward for CRT.

CRT is at present recommended for selected patients with New York Heart Association class III or IV heart failure although Dr Rakesh Sharma (Royal Brompton Hospital, London) reported that there is increasing evidence of benefit in patients with less

severe heart failure. MADIT-CRT and the REVERSE extension study both showed CRT benefit in patients with asymptomatic or mildly symptomatic heart failure. MADIT-CRT compared CRT with a defibrillator (CRT-D) and ICD: survival free of heart failure (the primary end point) was significantly better in the CRT-D group.

Dr Sharma said that with ICDs the challenge is to identify patients who are likely to benefit. "This is important because only around 10% of primary prevention patients receive life-saving therapy from their ICD and there can be problems with the therapy," he said.

Use of natriuretic peptide (NP) testing as a "rule out" test in heart failure diagnosis has been an important development and the Conference heard that the recent Health Technology Assessment's endorsement of the role of NP testing in primary care should improve availability of the test.

Dr Theresa McDonagh commented that NPs are the only validated biomarkers for use in diagnosis of heart failure. At present, they are also the best prognostic markers but many other biomarkers are being investigated that, in future, might well be used in combination with NPs for better risk stratification. She said that promising new biomarkers include cystatin C (a serine protease inhibitor) and ST2 (a member of the interleukin -1 receptor family).

Sleep apnoea

The conference heard from Dr Anita Simonds (National Heart and Lung Institute, London) that a high proportion of patients with heart failure have some form of sleep-disordered breathing. This is often central sleep apnoea for which optimum treatment is not yet clear – a European study is currently investigating a new strategy of adaptive servo-ventilation for these patients.

Heart failure patients with moderate to severe obstructive sleep apnoea benefit from nasal continuous positive airway pressure (CPAP) therapy, with improvement in cardiac function and in quality of life. "CPAP is undoubtedly the treatment of choice for these patients and should be available to them," Dr Simonds said, adding that cardiologists should have a low threshold for referral for sleep studies.

Difficult heart failure

In a session on "difficult heart failure", Professor Martin Cowie (National Heart and Lung Institute, London) discussed diuretic resistance. He said this is a common problem, particularly as heart failure advances, with limited randomised controlled trial evidence on treatment. Potential causes include poor adherence to diuretic therapy, excess dietary sodium, drug interactions (especially with NSAIDs) and chronic kidney disease. Chronic loop diuretic therapy can itself make the kidney more resistant to diuretics, while resistant fluid retention can also be a marker of deteriorating heart failure.

Treatment of resistant fluid retention can involve increased dose or frequency of loop diuretic, and IV rather than oral dosing (with continuous infusion better than bolus injection). Sequential nephron blockade with addition of thiazides to loop diuretics can also be effective but it is important to monitor blood pressure and creatinine. Professor Cowie commented that ultrafiltration is likely to become more routine in clinical practice although there are still practical challenges to this.

Professor Andrew Clark (University of Hull) suggested that ultrafiltration might also be useful for increasing serum sodium in patients with hyponatraemia. He said that hyponatraemia is a late event in the course of chronic heart failure and tends to be seen in patients in whom control of fluid balance is becoming difficult. Traditional treatments are often ineffective and unpleasant for the patient. The new vasopressin antagonists ('vaptans') are a promising treatment

The BSH website (www.bsh.org.uk) contains information on future conferences or contact the Secretariat on tel: 01865 391836; email: info@bsh.org.uk

Inaugural memorial lecture honours BSH founding president Philip Poole-Wilson

Professor Philip Poole-Wilson, who died in March 2009, was founding president of the BSH. In his honour, the Society has introduced a Philip Poole-Wilson memorial lecture. The inaugural lecture was given at the Autumn Meeting by Professor Henry Dargie.

Introducing the lecture, Professor Martin Cowie, said that Professor Poole-Wilson's sudden death was a great loss to cardiology. He said: "Philip was the Simon Marks British Heart Foundation Professor of Cardiology at the National Heart and Lung Institute, Imperial College, for 20 years. What was remarkable was not only his own research but the way that he fostered new ideas and new people. He was very generous with his time and intellectual capacity. He was also President of the European Society of Cardiology, helping to make it a more cogent body, and President of the World Heart Federation where he worked to raise the importance of cardiovascular disease among policymakers in both the developed and the developing world."

A fund has been set up in memory of Professor Poole-Wilson to raise money for the British Heart Foundation. Donations can be made at: http://www.mygiftofhope.org.uk/BHFWebSiteCS/Hope/ViewFund.aspx?PageId=662

Professor Henry Dargie receives a medal from Mrs Mary Poole-Wilson after presenting the Philip Poole-Wilson memorial lecture