The good news is that the prognosis for patients with heart failure in the UK is considerably better than it was 10 years ago, said Martin Cowie (London).

Many aspects of care for patients with heart failure in the UK had improved. However, there was still much work to do. The UK was falling behind some of its continental neighbours. One of the reasons was that there were not enough clinicians with an interest in heart failure to identify patients and ensure their access to treatments.

There also appeared to be a widening gap between best and worst care for heart failure.

More local champions for heart failure were needed across the country to drive up standards.

“We must not end up giving better and better care to fewer and fewer patients, and feeling we are doing a great job,” Professor Cowie said.

The recent Healthcare Commission acute hospital portfolio audit showed that only 20% of patients admitted to hospital with heart failure had any specialist follow-up (by physician or specialist nurse). “Only 20% have access to what we consider standard good practice. This is a scandal and we need to do something about it.”

The new national heart failure audit was an important way to help improve standards of care (see page 5).

In a session on acute presentation of heart failure, Vincent Connolly (Middlesbrough) said that correct diagnosis in the acute assessment unit is vital. Patients typically present with breathlessness or fluid retention and these can have various causes.

If acute heart failure was diagnosed, prompt treatment with oxygen, diuretics and vasodilators would often lead to rapid improvement in symptoms and could improve outcome.

Vasodilators were probably the only acute drug treatment with supportive evidence. His practice was to use glyceryl trinitrate, or nitroprusside if the patient was very hypertensive. He felt that inotropes should only be used after discussion with a cardiologist. Co-morbidities could complicate assessment and treatment, and again it may be important to seek advice from cardiologist colleagues.

This led on to a talk from Suzanna Hardman (London) who argued that a heart failure cardiologist should see every patient who comes into hospital with heart failure.

They could support front-line teams, ensure early diagnosis (her hospital aimed to carry out echocardiography within 48 hours if heart failure was suspected), and optimise inpatient treatment. The Whittington hospital had a hospital-wide protocol for uptitration of heart failure medicines.
Audit data showed the benefit of this early intervention. Of a cohort of 165 patients with a first heart failure admission, 80% were alive with no re-admissions at 3 months, and mortality was 8.5%. These figures compared favourably with other UK and European data. Also, 12-month mortality for incident heart failure was 12% compared with 14% for 6-month mortality in a recent UK epidemiological study.

After optimisation, most patients improved by one or two New York Heart Association (NYHA) classes, and these trends were sustained over 12 months.

Dr Hardman noted that the hospital protocol required 48 hours of stability before discharge. Although this might increase the length of the index admission, there was overall saving on bed days because of a reduction in subsequent re-admissions.

### Diagnosis and prognosis

The standard investigations for suspected heart failure are an ECG and the measurement of natriuretic peptides (B-type natriuretic peptide [BNP] and N-terminal-proBNP [NT-proBNP]), although the latter is not yet available in all Primary Care Trusts (PCTs), said Theresa McDonagh (London).

Using both tests had a higher negative predictive value than either test alone. But if only one test could be used, BNP was probably more accurate than ECG for excluding heart failure.

Chest X-ray should also be routine. It did not have high positive predictive value in heart failure – the X-ray was often normal, especially in patients with chronic heart failure – but it was important to exclude lung pathology.

If these initial tests were abnormal, the next stage was to establish the nature of the underlying cardiac dysfunction (e.g. left ventricular systolic dysfunction or preserved systolic function) using echocardiography. Left ventricular ejection fraction (LVEF) was usually measured, since this was the entry criterion for most drug trials, but there was no cut-off level for determining systolic dysfunction. The most accurate echocardiography method was to measure biplane LVEF using Simpson’s rule, but this was time consuming.

For invasive testing, Zaheer Yousef (Cardiff) said that both left and right heart catheterisation studies are important in investigating the cause of a patient’s heart failure.

Defining patients’ coronary anatomy was an obvious starting point, since up to 75% of heart failure was caused by coronary artery disease. Coronary angiography was probably the best imaging modality. If coronary artery disease was confirmed, myocardial viability could be assessed to determine whether revascularisation was likely to be useful. Coronary angiography could also be useful in helping to locate the coronary sinus for the insertion of biventricular pacemakers.

Computed tomography (CT) coronary angiography had the advantage of being non-invasive. However, it involved a heavy radiation dose (equivalent to 300 chest X-rays) and also produced imprecise lesion anatomy. Dr Yousef said he reserved this test for patients who were expected to have normal coronary arteries or in whom there was suspicion of congenital abnormalities.

He suggested that right heart catheterisation would be of increasing value to heart failure physicians. This simple procedure gave useful data on intracardiac pressures and oxygen saturation.

### Prognostication

Few clinical variables add to the value of BNP/NT-proBNP for assessing the prognosis of patients with heart failure, said John Cleland (Kingston upon Hull).

For predicting short-term mortality post-discharge, BNP seemed to be a powerful prognosticator. It was not necessarily better than models based on routinely collected clinical information, but doing one test was easier than inputting multiple data into prognostic scoring systems.

In Hull, three variables – NT-proBNP, quality of life (measured using a simple six-point scale) and diuretic dose – had been shown to be useful in assessing prognosis in outpatients.

Why prognosticate? There was potential value for both patients and for health professionals. Patients might want to make future plans. For physicians, it could help with choice of therapies and in knowing which patients to target for more intensive monitoring.

Patients admitted with decompensated heart failure generally had a poor prognosis and biomarkers were unlikely to have major additional value. “Where biomarkers probably make the biggest difference is in stable outpatients with few or no symptoms. These are the sort of patients we often don’t worry about but in whom treatment may have the greatest impact on prognosis. Identifying those patients who have an adverse prognosis but few symptoms, who should have monitoring and treatment intensified, is likely to be the most valuable role for prognostic markers,” Professor Cleland said.

### What brings patients to hospital?

The average patient with heart failure is admitted to hospital more than once each year and the median length of stay is 9 days, said Iain Squire (Leicester).

Acute decompensated heart failure is the single most common reason for repeat admissions in patients with heart failure. This can present in a number of different ways, including acute pulmonary oedema, anasarca or decompensation associated with arrhythmia.

Alasdair Gray (Edinburgh) said that management of acute pulmonary oedema has hardly changed over the past 20–30 years, and early mortality remains high.
There were no placebo-controlled trials for the most common treatments for pulmonary oedema and some drugs (opioids and diuretics) might be potentially harmful.

Non-invasive ventilation (continuous positive airway pressure [CPAP] or non-invasive intermittent positive pressure ventilation [NIPPV]) was increasingly used, though recent evidence from the 3CPO* study suggested that benefit was likely to be modest. This large multicentre study compared three approaches: standard oxygen therapy, CPAP and NIPPV. It was the first trial powered to have a mortality endpoint. There was no difference in 7-day mortality or other major endpoints between oxygen and either method of non-invasive ventilation.

Dr Gray suggested that for the early management of pulmonary oedema, if patients were hypertensive and had no significant respiratory failure, they should receive oxygen and aggressive intravenous (IV) nitrates. If opioids were used for symptom management, he felt they should be given only in low dosage, titrated to effect. For significant fluid overload and systemic congestion, diuretics (in the smallest possible dose) should be considered. He would use non-invasive ventilation if the patient had significant hypoxia despite high-flow oxygen, with earlier use considered in patients with co-existing chronic obstructive pulmonary disease.

Whereas pulmonary oedema is not necessarily fluid ‘overload’ but fluid ‘in the wrong place’, patients with anasarca (extreme generalised oedema) definitely have excess fluid.

Andrew Clark (Kingston upon Hull) said that patients could present with 20–40 kg of excess fluid. IV loop diuretics were essential for patients with gross fluid retention, but such patients were often diuretic resistant. Dose for dose, continuous infusion of frusemide produced greater loss of fluid than repeated IV boluses. “Progressive nephron blockade”, with a combination of thiazide-type diuretic and high-dose loop diuretic, could be extremely potent.

Ultrafiltration was likely to become a standard treatment, especially in patients who were severely diuretic resistant. In the US UNLOAD study, ultrafiltration produced greater weight and fluid loss than IV diuretics and also reduced 90-day rehospitalisation. Dr Clark cautioned that more evidence was needed before the use of this technique becomes widespread, but in Hull they had started to use ultrafiltration in a few very severe patients. In his first patient, the treatment removed 29 L fluid over 8 days.

Also on the horizon for fluid retention were V2 vasopressin antagonists – aquaretics – which might be particularly helpful in patients with symptomatic hyponatraemia.

Severe heart failure

Stuart Rosen (London) said that there was no one “magic intervention” when a patient was admitted for severe heart failure, but there were several smaller steps that could significantly improve patients’ quality of life, if not necessarily affecting its quantity.

There may be scope for interventions on lifestyle, drug therapy, devices and revascularisation/surgery. Lung function tests could be useful to check that a patient’s breathlessness had a cardiac cause since obstructive airways disease was considerably underdiagnosed. Sleep disordered breathing was also common and patients often felt better on CPAP, although randomised trials were ongoing and would provide better evidence on which to base treatment.

Drug therapy needed to be optimised. Biochemical optimisation was also important – hyponatraemia could make patients feel dreadful and hypomagnesaemia could produce weakness and promote arrhythmia.

Most patients with severe heart failure would be outpatients and various multidisciplinary models for care had been developed. Telecare was useful in facilitating communication between a patient and healthcare professionals. “It means that treatment changes can be instituted proactively, rather than the healthcare professionals having continually to firefight,” Dr Rosen said.

Heart failure arrhythmia

In a presentation on heart failure arrhythmias, Derek Connelly (Glasgow) emphasised the need to treat the patient and not the arrhythmia: “We have to ask ourselves, are we treating the patient to help them live longer, to make them feel better, or are we just trying to tidy up an abnormality on the ECG?”

Some arrhythmias required no treatment or the treatment of modulating/precipitating factors, such as ischaemia or electrolyte imbalance. For others, drugs, devices and ablation could all be considered. For atrial fibrillation (AF), the recent AF-CHF study had shown rate control and rhythm control to have equivalent efficacy.2
Dr Connelly suggested that ablation was underused for atrial arrhythmias in patients with heart failure. Atrial flutter was curable in over 90% of cases, and ablation should be considered if medical therapy failed. AF was more challenging. Success was higher in paroxysmal AF than in chronic AF. However, in selected patients with chronic AF, catheter ablation could be life-transforming, although repeat procedures were often needed.

A recent study showed pulmonary vein isolation to be better than atrioventricular node ablation plus biventricular pacing in patients with AF. The challenge now would be for other centres to match the results from these centres of excellence.

Heart failure in the elderly

Heart failure is typically a disease of the elderly. The mean age at presentation of new heart failure is 76 years. Both incidence and prevalence rise dramatically with age, and the older the population, the greater the proportion who have heart failure with preserved systolic function rather than systolic dysfunction.

Theresa McDonagh said that although overall hospital admissions for heart failure were flattening out, in the elderly they were still increasing. Also, the reduction in mortality that had been seen in the heart failure population generally had not been seen in more elderly populations. For a patient over 70 years of age who presented with heart failure, median survival was still around 2.5 years.

John Cleland said that there was limited evidence regarding the treatment of patients with heart failure and preserved left ventricular systolic function.

In the CHARM-Preserved and I-Preserve studies, angiotensin-receptor blockers (ARBs) showed no mortality benefit in patients with preserved systolic function. For now, angiotensin-converting enzyme (ACE) inhibitors (on the basis of some analyses from PEP-CHF) should perhaps be used first-line rather than ARBs in this population.

There was good evidence that beta-blockers reduced mortality in older patients with left ventricular systolic dysfunction, at least up to the age of 80 years, but evidence was less certain in older patients, and in patients with preserved systolic function.

However, Professor Cleland also made the point that mortality benefit may be less important for elderly patients than the everyday symptoms they have to put up with.

Jackie Taylor (Glasgow) agreed. She said that mortality should not be the only outcome measure in clinical trials. More functional outcomes should be included. Many elderly patients would be interested in relatively small gain: for example, a relatively small improvement in the 6-minute walk test could make the difference between being able to go out shopping or not.

There were many obstacles to optimum care for older patients with heart failure, Dr Taylor said. Interpreting the symptoms could be tricky because of the non-specific presentation of heart failure in these patients. A high index of suspicion was needed to make the diagnosis. There were also obstacles with access to diagnostic tests. Patients aged over 80 years were half as likely to get an echocardiogram: “That is an appalling statistic,” she said.

Co-morbidities had a huge impact on heart failure management. For example, postural hypotension and risk of falls was a major factor limiting uptitration of evidence-based therapies. Cognitive impairment made history taking more difficult, it reduced adherence to management programmes, and it was associated with higher morbidity and mortality.

Anaemia

Around 30–50% of patients with chronic heart failure have anaemia, and this is associated with increased symptom severity. It is also an independent adverse prognostic factor.

Paul Kalra (Portsmouth) said that possible causes of anaemia in heart failure included haemodilution, iron deficiency, decreased cardiac output (and bone marrow dysfunction), chronic immune activation (impacting on both erythropoietin [EPO] production and bone marrow response to EPO) and chronic kidney failure (with reduced production of EPO).

Functional or absolute iron deficiency and/or defective EPO production was common. Small studies suggested that partial correction was feasible with IV iron and/or erythropoiesis-stimulating agents, and was associated with improvement in symptoms, hospitalisation and exercise capacity. Oral iron did not seem to be effective.

Current large-scale, placebo-controlled trials should provide clearer safety and efficacy data on these treatments, Dr Kalra said.

Cardiogenic shock

Cardiogenic shock – a very severe and acute form of the heart failure syndrome – is common and has high mortality. It kills several thousand patients each year in the UK.

Simon Thackray (Kingston upon Hull) said that the condition was almost invariably associated with some degree of myocardial infarction (MI) and left ventricular damage. Cardiogenic shock complicated up to 7% of ST-elevation MIs.

Recognition of the condition was straightforward if the patient presented with an MI and low blood pressure, but could be a problem if the condition developed some days after acute MI.

Practice had been driven by the SHOCK trial which compared angioplasty with initial medical stabilisation. Six-year follow-up data showed the superiority of emergency revascularisation.

“The one solid piece of evidence in cardiogenic shock is to try to offer revascularisation as early as possible,” Dr Thackray commented. He added that the concept of myocardial stunning in cardiogenic shock had now led to interest in ways of supporting the circulation until recovery of myocardial function.
Hot topics: audit – how are we doing?

An update on progress with the National Heart Failure Audit was given by Theresa McDonagh.

As of October 2008, 85% of Trusts in England and Wales were registered and 53% had submitted data. There were around 13,500 case records in the database. That was very good considering the difficulties in carrying out heart failure audit. She urged people to get involved and emphasised that clinical audit was expected to become an important component of recertification for most specialties, which was one good reason to take part.

The second National Heart Failure Audit report (July 2007–March 2008), which can be accessed from the BSH website, showed, as expected, that the vast majority of patients were admitted to general medical wards and that patients were much more likely to receive National Institute for Health and Clinical Excellence-recommended heart failure drugs if they were in a cardiology ward. Unlike previous audits, no age or gender bias in treatment had been seen.

The audit data were linked to national mortality statistics and to inpatient hospital episode statistics. At a later stage, the plan was to extend the audit to primary care.

Hot topics: ATHENA trial

In a Hot Topics session, John Cleland outlined results of the ATHENA study, investigating use of the anti-arrhythmic agent dronedarone in patients with paroxysmal AF or recent-onset AF. Recent decompensation or NYHA class IV heart failure were exclusion criteria. The trial included over 4500 patients aged ≥70 years.

There was a 24% reduction in the primary endpoint of cardiovascular hospitalisation or death from any cause and a 34% reduction in stroke, with little difference between active treatment and placebo in adverse events.

Professor Cleland, who was not involved with ATHENA, said this was one of most positive cardiovascular trials in 2008. He thought that dronedarone might be promising for mild-to-moderate heart failure patients with paroxysmal AF, but more data were needed in view of the safety concerns in the earlier ANDROMEDA study in severe heart failure. The drug is not yet licensed in the UK.

Helping patients to live with heart failure

Speakers in this session considered how health professionals could help to reduce re-admission by making time to listen to the patient, the importance of monitoring and streamlined onward referral where necessary, and how exercise rehabilitation may help.

It is important for specialist nurses to help patients to “make sense of their illness” said Jenny Welstand (Wrexham). Patients could not effectively practise self-care (e.g. weighing themselves or titrating medication) if they did not understand why they were being asked to do this.

Patients with heart failure often had problems with self-worth. Nurses needed to talk to patients and to listen to their stories. Forming a trusting positive relationship with a nurse seemed to enhance patients’ self-confidence and thus their ability to self-care.

In today’s minimalist healthcare system, the role of trusting relationships was not given much attention, Ms Welstand said: “While we specialists nurses develop an array of complex clinical skills and competencies, and become experts in the technologically driven care of the patient, do we actually forget to nurse them?”

Discussing the monitoring of heart failure patients, Annie MacCallum (Gloucestershire) said that an established relationship with one key professional – probably a specialist nurse – was crucial.

These key workers should monitor symptoms and identify when to refer the patient for further specialist interventions (such as

<table>
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<tr>
<th>Type of ward</th>
<th>Percentage of patients prescribed:</th>
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<tr>
<td></td>
<td>ACE inhibitor</td>
</tr>
<tr>
<td>Cardiology</td>
<td>60.5</td>
</tr>
<tr>
<td>General medical</td>
<td>46.2</td>
</tr>
<tr>
<td>Other</td>
<td>62.2</td>
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Percentage of inpatients with heart failure prescribed key drug therapies within different wards (data from the National Heart Failure Audit second report)
devices), facilitate appropriate hospitalisation for worsening symptoms and communicate with all the agencies involved in patient care. They should also discuss prognosis and establish patients’ views on end-of-life care.

There was a good body of evidence to support specialist nurse-led monitoring for heart failure patients. There was now a need for more collaborative working, Ms MacCallum said. Many GPs were keen to manage their patients’ heart failure and would welcome assistance with monitoring.

Remote monitoring was an emerging field and might be an option for different types of patients, including patients who still worked and those who had difficulty travelling. Ms MacCallum’s area had plans to install 60 heart failure telehealth units.

Discussing exercise rehabilitation, Fiona Lough (London) said: “If a patient is told they have a failing heart they are going to be fearful of becoming more active. It is our responsibility to ensure they understand the benefits of exercise.”

She said that the results of HF-ACTION, the largest randomised controlled trial of exercise training, were reported at the recent American Heart Association conference. The study was neutral in terms of mortality or hospitalisation but it did show that exercise could be safely prescribed and had beneficial effects on quality of life.

Only around one-third of Trusts provided rehabilitation for heart failure patients. Trust-wide protocols were needed to promote rehabilitation, with equity for elderly patients with co-morbidities and NYHA class III/IV patients. With detailed assessment and individual prescription, these patients could be included in exercise plans. This required joint working between heart failure and rehabilitation teams.

Heart failure to new heart: surgical options

Which is best for advanced heart failure: heart transplant or a left ventricular assist device (LVAD)? Speakers at a session on surgery were emphatic that transplantation remains the best treatment. But the severe shortage of good donor hearts (the number of adult heart transplants in the UK has halved in the past 10 years) has led to increasing interest in LVADs.

John Pepper (London) said that surgical interventions such as revascularisation of hibernating myocardium, mitral valve repair and remodelling of the left ventricle were not common operations in heart failure. Transplantation was the only surgical treatment generally accepted as providing survival benefit and improved quality of life. But it was available to very few patients.

At present, the NHS funds LVADs as a ‘bridge to transplant’. Professor Pepper said that use of these devices as lifetime support (destination therapy) when transplantation was not an option was an exciting idea and renewed attempts were being made to persuade the Department of Health to fund a trial investigating this.

There is also increasing interest in the potential use of LVADs as a ‘bridge to recovery’. Professor Pepper forecast that stem cells would find use in helping to stimulate this recovery.

Nicholas Banner (Harefield) said that pooled worldwide data showed that around 23% of patients with non-ischaemic dilated cardiomyopathy had recovery sufficient for explantation during LVAD support. “The phenomenon of remodelling and recovery of ventricular function is very real, but the frequency of this is still uncertain and durability of recovery still unknown,” he said.

Jayan Parameshwar (Cambridge) noted that because of improvements in medical therapy the patient population for transplantation has changed. Nowadays, when he saw patients they almost always had poor renal function and high pulmonary vascular resistance. He urged colleagues who were thinking about whether their patient might be suitable for transplantation to refer early rather than late. He would much rather see patients and find them too well for transplantation at the moment than to see them when transplantation was no longer an option.

Dr Parameshwar pointed out that LVAD patients required much more support than patients who had had a transplant and, at present, quality of life was far superior after a transplant. But VADs were getting smaller and better, and this might not be the case in 5–10 years’ time.

Dr Banner said that Harefield transplantation data showed that 62% of patients were alive at 10 years: “If you get the patient
through the early postoperative phase, their long-term outcome will be very good.” Hypertension and hyperlipidaemia occurred in the majority of patients. Other long-term problems included renal dysfunction, diabetes and cardiac allograft vasculopathy (chronic rejection). All transplant patients should be on a statin, with pravastatin being the best choice in patients taking ciclosporin.

Device controversies

The pros and cons of implantable cardioverter defibrillators (ICDs) were debated in a session on device controversies. Derek Connelly (Glasgow) said there was good trial evidence that these devices could be lifesaving in certain patients but they probably would not stand the test of time, with future developments overtaking the current technology.

Some patients would certainly be too sick for an ICD. He suggested that heart failure patients who should be considered for ICD were those with LVEF 10–30%, NYHA class II (class III if candidates for cardiac resynchronisation therapy with defibrillator [CRT-D]), no major co-morbidities, and with an additional risk factor (non-sustained ventricular tachycardia or QRS ≥120 msec).

Peter Cowburn (Southampton) suggested that it would be useful to have a national registry to better describe ICD benefits/risks. Benefits had probably been overstated by patient selection for clinical trials.

Improved risk stratification was also needed, he said. A simple risk score for primary ICD therapy had recently been published, based on MADIT-II data. This included five risk factors: NYHA class, age, renal function, QRS duration and AF. ICDs showed no benefit in very high-risk groups or very low-risk groups, but there was clear benefit for the “middle” group. This sort of score might help with decision-making.

Dr Cowburn added that some patients thought that an ICD would prevent sudden death and that they would instead die from decompensated heart failure. That was not always true. Patients should not be scared into having an ICD: they should be given appropriate counselling so they could make an informed decision.

John Cleland saw a limited role for stand-alone ICDs in the management of patients with heart failure. He argued that all patients with heart failure and LVSD who needed an ICD should also routinely have CRT.

Most patients with ICD indications would develop an indication for CRT within a few years. Follow-up of patients at the Hull ICD clinic showed that within 4 years, half the patients with a narrow QRS at baseline had developed a broad QRS. Explanting an ICD to upgrade to a CRT-D was expensive and carried risks. It was therefore more sensible to implant a CRT-D from the start, perhaps without the left ventricular lead or with the lead in place but turned off until needed.

CRT selection

For CRT, Rakesh Sharma (London) emphasised that appropriate patient selection was key to optimal results. For now, selection criteria relied on electrical markers of dyssynchrony rather than mechanical markers, but this might change.

“Indication creep” was inevitably occurring as skills for CRT implantation increased. AF was one common situation in which CRT may be indicated, but the data were less robust. Dr Sharma said that he did implant CRT in patients with AF, with careful follow-up. If the biventricular pacing rate fell below 85% he would consider ablation strategies to try to improve CRT delivery.

Other scenarios in which CRT may be indicated were heart failure patients with bradyarrhythmias, patients with conventional single- or dual-chamber pacemakers who developed symptoms of heart failure, and inotrope-dependent heart failure patients.

Age should not influence selection, as there were data that CRT-P was cost-effective in octogenarians. Patients with renal impairment had tended to be excluded from trials but his practice was to implant, with careful follow-up.

Other presentations

As well as the presentations reported here, the meeting included a series of clinical case presentations and ‘meet the expert’ sessions. The meeting ended with a light-hearted debate on whether heart failure was best managed by cardiologists, GPs or geriatricians.

Study acronyms

<table>
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<tr>
<th>Study acronym</th>
<th>Description</th>
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<tr>
<td>AF-CHF</td>
<td>Atrial fibrillation and congestive heart failure</td>
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<tr>
<td>ANDROMEDA</td>
<td>Antiarrhythmic trial with dronedarone in moderate to severe CHF evaluating morbidity decrease</td>
</tr>
<tr>
<td>ATHENA</td>
<td>A placebo-controlled, double-blind, parallel-arm trial to assess the efficacy of dronedarone 400 mg bid for the prevention of cardiovascular hospitalization or death from any cause in patients with atrial fibrillation/atrial flutter</td>
</tr>
<tr>
<td>CHARM-Preserved</td>
<td>Candesartan in heart failure: assessment of reduction in mortality and morbidity – preserved</td>
</tr>
<tr>
<td>3CPO</td>
<td>Randomised controlled trial of the use of continuous positive airway pressure (CPAP) and non-invasive positive pressure ventilation (NIPPV) in the management of patients presenting with acute cardiogenic pulmonary oedema</td>
</tr>
<tr>
<td>HF-ACTION</td>
<td>Heart failure: a controlled trial investigating outcomes of exercise training</td>
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<tr>
<td>I-PRESERVE</td>
<td>Irbesartan in heart failure with preserved ejection fraction</td>
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<td>MADIT-II</td>
<td>Multicenter automatic defibrillator implantation trial II</td>
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<tr>
<td>PEP-CHF</td>
<td>Perindopril for elderly people with chronic heart failure</td>
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<tr>
<td>SHOCK</td>
<td>Should we emergently revascularize occluded coronaries for cardiogenic shock</td>
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<tr>
<td>UNLOAD</td>
<td>Ultrafiltration versus intravenous diuretics for patients hospitalized for acute decompensated congestive heart failure</td>
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BSH AGM

At the Annual General Meeting of the BSH on 20 November 2008, the Chair (Professor Martin Cowie) said that membership continued to increase and now stood at 644. The majority of members were cardiologists and nurses, and the Society was keen to encourage more members from general practice and other disciplines.

The BSH had had a successful presence at the British Cardiovascular Society (BCS) conference in June 2008. Seven sessions were held, most of which were run jointly with other societies. The BSH was keen to embrace this cross-disciplinary working. Unfortunately, the 2009 BCS conference partly overlapped with Heart Failure 2009, but the BSH would be involved with four heart failure sessions during the last two days of the BCS conference.

Commenting on other major activities during the year, Professor Cowie encouraged members to support the National Heart Failure Audit. This was an extremely important initiative. There had also been considerable work on the cardiac workforce requirements, on the training curriculum for registrars specialising in heart failure and on nurse education courses.

Election of a new BSH board will take place in 2009, when Dr Theresa McDonagh will take over as Chair. The BSH accounts for the year to 31 May 2008 were presented by the Treasurer (Dr Suzanna Hardman) who noted that the society’s finances were in a secure position.

References


11th BSH Annual Autumn Meeting: acknowledgements

Gold exhibitors
A. Menarini Pharma UK SRL
Biotronik
Otsuka

Bronze exhibitors
AstraZeneca
Echotech
Medtronic
NHS Improvement
Pfizer
Radiometer
ResMed
Servier
Solvay
Takeda

Other contributors
British Heart Foundation
Information Centre for Health And Social Care
REGENERATE
Sanofi-Aventis
Wisepress

Friends of the BSH
The Society is grateful to the ‘Friends of the BSH’: A. Menarini Pharma, Biotronik, Echotech, GE Healthcare, Medtronic, Otsuka, Pfizer, Servier, and Takeda for their continuing support.

Becoming a Member or a Friend of the BSH

Membership is open to anyone involved in the diagnosis, management or science of heart failure. If you are interested in becoming a Member or Friend of the BSH, please contact:
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