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Cardiomyopathy UK
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Session 3: Non-invasive imaging: what the heart failure specialist needs to know
  Philip Poole-Wilson Memorial Lecture
Session 4: Heart failure research / Hyde Park [there are no abstracts for the Hyde Park presentations]
Session 5: Cases (themes) [there are no abstracts for this session]
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Accreditations
The meeting has been approved by the Federation of the Royal Colleges of Physicians of the United Kingdom for 9 category 1 (external) CPD credits and the code is 98424. The programme has been accredited by the Royal College of Nursing (RCN) Centre for Professional Accreditation. Accreditation applies only to the educational content of the programme and does not apply to any product. The RCN cannot confirm the competence of any practitioner. The meeting has been awarded 14 study hours and the reference is 6015.

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Programme – Day One THURSDAY 26 NOVEMBER 2015

Programme directors: Annie MacCallum (Gloucestershire) / Jim Moore (Cheltenham) / Iain Squire (Leicester) / Simon Williams (Manchester)

08:45–09:30 Registration
09:30–09:40 Introduction Iain Squire (Leicester)

09:40–10:45 Session 1: New for 2015 – trials and updates
Chairs: Andrew Clark (Hull) / Simon Williams (Manchester)
09:40–10:00 National Heart Failure Audit Theresa McDonagh (London)
10:00–10:15 The SERVE HF trial Martin Cowie (London)
10:15–10:30 What's new in 2015? Trial update John McMurray (Glasgow)
10:30–10:45 From trial data to clinical use Iain Squire (Leicester)
10:45–11:15 Coffee

11:15–12:35 Session 2: Integrated heart failure care in a deprived inner city – transforming outcomes – good news
Chairs: Annie MacCallum (Gloucestershire) / Jim Moore (Cheltenham)
11:30–11:45 Lessons from the North Central London Heart Failure Network – using National Heart Failure Audit data to drive change Simon Woldman (London)
11:45–12:00 The future – a care package to support integrated heart failure care – a model for the HFA? David Patterson (London)
12:00–12:20 More good news: a plan in action in South London Lisa Anderson (London)
12:20–12:35 Panel discussion
12:35–13:50 Lunch and Meet the Expert Sessions

13:50–14:35 Session 3: Non-invasive imaging: what the heart failure specialist needs to know
Chairs: Suzanna Hardman (London) / Simon Woldman (London)
14:05–14:20 Where does cardiac CT fit in? Paramjit Jeetley (London)
14:20–14:35 Is there still a place for echo? Alison Duncan (London)
14:35–15:05 Tea

15:05–15:50 Philip Poole-Wilson Memorial Lecture
Chairs: John McMurray (Glasgow) / Iain Squire (Leicester)
Therapeutic advances in heart failure: the non-vicious cycle of basic and clinical investigations Marc Pfeffer (Boston, USA)
Programme – Day One  THURSDAY 26 NOVEMBER 2015

15:50–16:50  Session 4: Heart failure research / Hyde Park

Chairs:  John Cleland (London) / Martin Cowie (London) / Paul Kalra (Portsmouth) / Theresa McDonagh (London)

15:50–16:15  Rapid fire abstracts: Young Investigators’ Award

15:50–15:56  Left ventricular systolic dysfunction: the burden of stability – findings from the Heart failure and Optimal Outcomes from Pharmacy Study (HOOPS)  Paul Forsyth (Glasgow)

15:56–16:02  Diagnostic and prognostic utility of cardiovascular magnetic resonance in heart failure with preserved ejection fraction  Prathap Kanagala (Leicester)

16:02–16:08  Employment following first hospitalisation for heart failure in patients of working age – a Danish nationwide cohort study  Søren Lund Kristensen (Copenhagen, Denmark)

16:08–16:14  Characteristics and prognosis of patients according to the severity of peripheral oedema – a report from the National (England & Wales) Heart Failure Audit  Ahmad Shoaib (Hull)

16:15–16:30  Update from the BSH Research Fellow  Jane Cannon (Glasgow)

16:30–16:50  Hyde Park presentations

16:30–16:36  Back to the future for community care?  Annie MacCallum (Gloucestershire) / Jim Moore (Cheltenham)

16:37–16:43  HEFREF. HEFPEF. Who gives an ‘f’? Time for a more clinically relevant classification system in heart failure?  Dargoi Satchi (Stoke)

16:44–16:50  AKI is good for you in heart failure  Paul Kalra (Portsmouth)

16:50–18:00  Cheese and wine reception

17:20–18:20  Novartis Satellite Symposium

Chronic heart failure question time: how do we make heart failure a national health priority?
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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Chair(s)</th>
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<tbody>
<tr>
<td>08:30–08:55</td>
<td>BSH Annual General Meeting (BSH members only)</td>
<td>Roy Gardner (Glasgow) / Iain Squire (Leicester)</td>
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<tr>
<td>09:00–10:30</td>
<td>Session 5: Cases (themes)</td>
<td>John Baxter (Sunderland) / Jenny Welstand (Wrexham)</td>
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<td>09:00–09:18</td>
<td>Case 1 (theme: breathlessness? cause)</td>
<td>Simon Beggs (Glasgow)</td>
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<td>09:18–09:36</td>
<td>Case 2 (theme: end of life)</td>
<td>Yvonne Millerick (Glasgow)</td>
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<td>09:36–09:54</td>
<td>Case 3 (theme: GUCH)</td>
<td>Aidan Bolger (Leicester)</td>
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<td>09:54–10:12</td>
<td>Case 4 (theme: dizziness)</td>
<td>Jackie Taylor (Glasgow)</td>
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<td>10:15–10:30</td>
<td>Presentation of the Young Investigators' Award and BSH Research Fellow Award</td>
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<td>10:30–11:00</td>
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<td>11:00–12:00</td>
<td>Session 6: Device therapy for all disciplines</td>
<td>Peter Cowburn (Southampton) / Roy Gardner (Glasgow)</td>
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<td>11:00–11:15</td>
<td>Home monitoring &amp; REM-HF update</td>
<td>John Morgan (Southampton)</td>
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<td>11:15–11:30</td>
<td>What do we tell patients who are having ICDs?</td>
<td>Ewen Shepherd (Newcastle upon Tyne)</td>
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<td>11:30–11:45</td>
<td>What to do when we can’t place the LV lead</td>
<td>Tim Betts (Oxford)</td>
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<td>11:45–12:00</td>
<td>From implantation to follow up – streamlining care</td>
<td>Jay Wright (Liverpool)</td>
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<td>12:00–13:30</td>
<td>Lunch and Meet the Expert Sessions</td>
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<td>13:30–14:50</td>
<td>Session 7: Co-morbidities and collaboration</td>
<td>Mark Petrie (Glasgow) / Jackie Taylor (Glasgow)</td>
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<td>13:30–13:50</td>
<td>Treating AF and heart failure</td>
<td>Derek Connelly (Glasgow)</td>
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<td>13:50–14:10</td>
<td>Diabetes and heart failure</td>
<td>Alison Evans (Gloucestershire)</td>
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<td>14:10–14:30</td>
<td>Amyloidosis and infiltrative diseases – multidisciplinary models of care</td>
<td>Carol Whelan (London)</td>
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<td>14:30–14:50</td>
<td>Heart failure genetics in everyday practice</td>
<td>Ruth Newbury-Ecob (Bristol)</td>
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<td>14:50–15:20</td>
<td>Tea</td>
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<td>15:20–16:30</td>
<td>Session 8: New approaches to heart failure treatment</td>
<td>Iain Squire (Leicester) / Carol Whelan (London)</td>
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<tr>
<td>15:20–15:35</td>
<td>Other mechanical treatments</td>
<td>Mark Petrie (Glasgow)</td>
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<td>15:35–15:50</td>
<td>Metabolic treatment</td>
<td>Michael Frenneaux (Norwich)</td>
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<td>15:50–16:05</td>
<td>Percutaneous treatment: is mitral clip a treatment for heart failure?</td>
<td>Bernard Prendergast (London)</td>
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<tr>
<td>16:05–16:30</td>
<td>It is ‘doable’ – should we do it just because we can?</td>
<td>John Baxter (Sunderland)</td>
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<tr>
<td>16:30</td>
<td>Meeting close</td>
<td>Paul Kalra (Portsmouth)</td>
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MEET THE EXPERT SESSIONS
EXHIBITION AREA I – BRITTEN ROOM

THURSDAY 26 NOVEMBER 2015

Expert: Dr Alex Lyon, Royal Brompton Hospital, London  
Time: 13:05–13:15  
Topic: Heart failure – treating the vulnerable phase  
Location: Servier Laboratories exhibition stand

Expert: Dr Derek T Connelly, Glasgow Royal Infirmary and Golden Jubilee National Hospital  
Time: 13:20–13:30  
Topic: XANTUS: a real-world, prospective, observational study of patients treated with rivaroxaban for stroke prevention in atrial fibrillation  
Location: Bayer HealthCare exhibition stand

Expert: Professor Martin Cowie, Royal Brompton and Harefield NHS Trust, London  
Time: 13:35–13:45  
Topic: The remote monitoring of pulmonary artery pressure. Telemedicine – a practical cost-effective solution  
Location: St. Jude Medical exhibition stand

FRIDAY 27 NOVEMBER 2015

Expert: Mrs Paula Black, Blackpool Victoria Hospital  
Topic: Lifting the lid on devices – how devices can help us manage our heart failure patients (a heart failure nurse perspective)  
Location: Medtronic exhibition stand
ABSTRACTS

National Heart Failure Audit
Theresa McDonagh (King’s College Hospital, London)

No abstract was required for this presentation.

The SERVE-HF trial
Martin Cowie (Imperial College & Royal Brompton Hospital, London)

Background: Central sleep apnoea is associated with poor prognosis and death in patients with heart failure. Adaptive servo-ventilation is a therapy that uses a non-invasive ventilator to treat central sleep apnoea by delivering servo-controlled inspiratory pressure support on top of expiratory positive airway pressure. We investigated the effects of adaptive servo-ventilation in patients who had heart failure with reduced ejection fraction and predominantly central sleep apnoea.

Methods: We randomly assigned 1325 patients with a left ventricular ejection fraction of 45% or less, an apnoea-hypopnoea index (AHI) of 15 or more events (occurrences of apnoea or hypopnoea) per hour and a predominance of central events to receive guideline-based medical treatment with adaptive servo-ventilation or guideline-based medical treatment alone (control). The primary endpoint in the time-to-event analysis was the first event of death from any cause, lifesaving cardiovascular intervention (cardiac transplantation, implantation of a ventricular assist device, resuscitation after sudden cardiac arrest or appropriate lifesaving shock), or unplanned hospitalisation for worsening heart failure.

Results: In the adaptive servo-ventilation group, the mean AHI at 12 months was 6.6 events per hour. The incidence of the primary endpoint did not differ significantly between the adaptive servo-ventilation group and the control group (54.1% and 50.8%, respectively; hazard ratio 1.13; 95% confidence interval [CI] 0.97–1.31; p=0.10). All-cause mortality and cardiovascular mortality were significantly higher in the adaptive servo-ventilation group than in the control group (hazard ratio for death from any cause 1.28; 95% CI 1.06–1.55; p=0.01; and hazard ratio for cardiovascular death 1.34; 95% CI 1.09–1.65; p=0.006).

Conclusions: Adaptive servo-ventilation had no significant effect on the primary endpoint in patients who had heart failure with reduced ejection fraction and predominantly central sleep apnoea, but all-cause and cardiovascular mortality were both increased with this therapy. (Funded by ResMed and others; SERVE-HF ClinicalTrials.gov number NCT00733343.)

Further reading
What’s new in 2015? Trial update

John McMurray (BHF Cardiovascular Research Centre, University of Glasgow)

The heart failure trial which attracted most attention in 2015 was the Study of Adaptive Servo-Ventilation (ASV) Therapy In Central Sleep Apnoea and Chronic Heart Failure (SERVE-HF) which reported that ASV led to an increase in death in patients with HF-REF. We don’t yet understand why and we don’t believe that these findings are necessarily applicable to the use of assisted ventilation in patients with heart failure and obstructive sleep apnoea. Another disappointment in 2015 was the neutral result of the Calcium Up-Regulation by Percutaneous Administration of Gene Therapy in Cardiac Disease Phase 2b trial (CUPID-2) of Intra-coronary administration of AAV1/SERCA2a in patients with advanced HF-REF. Several secondary analyses of the Prospective Comparison of ARNi With ACE-I to Determine Impact on Global Mortality and Morbidity in Heart Failure trial (PARADIGM-HF) were also published this year.

In the EMPA-REG OUTCOME trial, empagliflozin, an inhibitor of sodium–glucose cotransporter 2, lead to a surprising and substantial reduction in new-onset heart failure in patients with type 2 diabetes.

References

From trial data to clinical use

Iain Squire (University of Leicester)

Prescription of the medicines and devices we use in everyday clinical practice in patients with heart failure is, for the most part, based upon the results of large, randomised, controlled clinical trials. The successful conclusion of a clinical trial is only the first step in a new drug or device (the technology) reaching clinical practice. Following a clinical trial, the new technology must undergo scrutiny by European and national regulatory authorities and, at the discretion of the Department of Health, cost-effectiveness appraisal by the National Institute for Health and Care Excellence (NICE). My presentation will describe this path in brief and will focus on the regulatory steps which are required in the setting of the NHS.
Integrating heart failure services across Islington and beyond – 1999–2015
Suzanna Hardman (Whittington Health, London)

In 1999 the Whittington Hospital was responding to press enquiries which identified a high 30-day cardiovascular mortality following acute admissions, with the Trust an outlier, whilst annual reporting on outcomes from Islington consistently showed an excess cardiovascular mortality. Further analyses had identified that much of this mortality was attributed to heart failure deaths. By coincidence, rather than design, the year also coincided with the early development of a Heart Failure Service aspiring to deliver an early accurate diagnosis and optimal well-integrated care for all patients with heart failure, irrespective of where they presented.

In a climate of financial constraint and challenges for all delivering heart failure care this presentation will reflect on the emergence of the Heart Failure Services from 1999 to the recent years when the Whittington is, again, an outlier but this time because of an unexpectedly low all-cause mortality and heart failure-related mortality reported for the acute hospital. These messages emerge irrespective of the data source. Alongside this the cardiovascular mortality in Islington, which, with Haringey, is part of an Integrated Care Organisation, has dropped dramatically. These outcomes reflect diverse sustained input and arguably meet the most recent Heart Failure Association vision of tackling heart failure from prevention, to ensuring longer better quality lives for all with heart failure, albeit reported from a deprived inner city community.

The first presentation of this session reflects the development of integrated HF services across hospital and community from 1999 to 2015, and so aims to provide an apposite introduction to the subsequent talks, all intended to inspire those delivering heart failure care fit for the future.

Lessons from the North Central London Heart Failure Network – using National Heart Failure Audit data to drive change
Simon Woldman (Barts Heart Centre, London)

The optimal management of patients with heart failure is developing rapidly and there are some safe and effective treatments that markedly reduce mortality for patients with this disease. Nationally, we have assessed individual providers of services using a variety of process measures (e.g. the involvement of a specialist in the care of a patient, prescription rates of prognostic drugs) to identify good practice. Whilst a huge step forward, the assessment of individual providers tells us little about how the systems and providers interact overall. Only whole system measurements give us that data and it is much harder to acquire.

The HF subgroup of London SCLG and UCLP has started looking at some of these data, which are very revealing. Prevalence rates across London (as measured from the Qualities and Outcomes Framework [QOF]) are low in London (approximately 0.5%) in comparison to the national average (0.7%) and the estimated prevalence (1.2%). Data from individual CCG areas reveal those with lowest prevalence often have highest admission rates.

Clearly we have huge opportunities in such areas to reduce cost, improve morbidity and likely mortality by learning from other areas with better statistics.
The future – a care package to support integrated heart failure care – a model for the HFA?

David Patterson (Whittington Hospital, UCL & Helicon Health, London)

Long-term conditions (LTCs) are now the major cause of death and disability worldwide, responsible for 59% of deaths and 46% of the global burden of disease. A fragmented service delivery is partly blamed for the escalating health and social care consequences seen internationally. People living with LTCs are the biggest users of NHS services. They each spend just a few hours per year with health and care providers, yet they live with their conditions and manage them on a daily basis. It is crucial that we support individuals to develop the knowledge, skills and confidence to design and manage their own health and care, and to support one another in the context of their wider family and friends. Does information technology, including the Internet of Things (IOT), have a significant part to play in helping a person with an LTC become more confident and more competent to manage their own conditions safely and well? Is there evidence that this more personalised approach can result in better outcomes?

Electronic Health Record (EHR)
The software was developed by CHIME at UCL and over two decades of research. It is a web-based EHR and standards based (ISO/EN 13606). This defines the standards of data quality, confidentiality, access control and interoperability. It is the base of our unique package of services, which combine patient management tools (including clinical guidance and advisory systems which draw on NICE Quality Standards). The clinical governance and clinical outcome measures are supported by the software, which is interoperable with a wide range of hospital and GP systems and tools (www.heliconhealth.co.uk).

Clinician and patient education
The accredited blended learning, a combination of both distance and face-to-face learning, has been developed both for the patient as well as the healthcare professional (HCP). It is designed at CPD (Continuing Professional Development) level for the HCP.

For the patient the intent is to help develop their ability to self-care; enhance their confidence of self-caring; improve their confidence and empower them. This will facilitate shared decision making with clinicians and better enable them to understand the diagnosis and the treatment. The accredited patient learning also acts as a subject matter for the HCP who is expected to learn more about the patient learning requirements and will apply this knowledge in their future clinical practice.

Clinical governance
The Clinical Governance Board includes patients, hospital consultants (haematology and cardiovascular), anticoagulant practitioners (GPs, Nurses, Pharmacists), commissioners and clinical GP leads, as well as an academic social scientist, a statistician, a computer scientist, an academic legal advisor and an IT representative from Whittington Hospital. A key priority for the Board was to agree measures of satisfactory quality of service in a changing clinical environment. The Governance embraces both site visits as well as the performance of a ‘real-time’ audit for each site or across all the sites.

More good news: a plan in action in South London

Lisa Anderson (St George’s Hospital, London)

The development of an Acute Heart Failure Unit at St George’s Hospital.
MR: the best modality?
Ceri Davies (St Bartholomew's Hospital, London)

This talk will try to convince you that MR is the single best imaging modality in heart failure. It provides an accurate and reproducible diagnosis of left ventricular systolic impairment and provides crucial data as to the underlying cause of a patient's heart failure. This information provides a prognostic assessment and can drive decisions about treatment.

New methods of tissue characterisation will be discussed as will the presumed, but dwindling, contraindications for MR scanning.

Where does cardiac CT fit in?
Paramjit Jeetley (Royal Free Hospital, London)

Cardiac computerised tomography (CT) has evolved over the past few years to become an integral part of the diagnostic armoury in the assessment of heart disease. From the early days of calcium scoring using electron-beam CT for coronary assessment, the modality has progressed to provide detailed coronary artery assessment and cross-sectional imaging of the heart. There have been great advances in scanner technology with increased detector sizes and dual source machines. These advances, together with improved ECG gating and software techniques such as iterative reconstruction, have dramatically improved image quality. Radiation exposure was a major concern when cardiac CT was in its infancy but with modern techniques of image acquisition and image post-processing, patients are subjected to much lower radiation doses with no compromise in image quality.

Cardiac CT has a number of applications in the assessment and management of patients with heart failure. Standard CT coronary angiography can help in the assessment of the aetiology of left ventricular (LV) dysfunction and the assessment of chest pain by providing detailed evaluation of the coronary arteries. It can be performed safely with the cautious use of beta-blockers, and the off-license use of drugs such as ivabradine. It has largely superseded the use of calcium scoring alone in this area.

Cardiac CT also allows the non-invasive assessment of patients presenting with heart failure with underlying valvular heart disease. It is well established in the pre-procedural workup for patients with aortic valve disease awaiting trans-catheter aortic valve implantation (TAVI). Cross-sectional imaging can provide accurate assessment of aortic root dimensions and anatomy as well as valve planimetry to confirm stenosis in unclear cases. It can also be used for detailed assessment of the valves themselves together with non-invasive evaluation of the coronary arteries prior to surgery.

Other applications of cardiac CT for patients with heart failure include the evaluation of the ventricles for cardiomyopathy and estimates of ventricular volumes and derived ejection fraction; the evaluation of pulmonary venous anatomy for patients undergoing invasive electrophysiology and ablation, and detailed assessment of coronary venous anatomy in complex patients requiring cardiac resynchronisation therapy. Techniques such as late-contrast enhancement are also now being used for assessment of myocardial viability.

Cardiac CT is now well established as part of the non-invasive work up for patients with cardiac disease. Together with echocardiography and cardiac MRI, it completes the spectrum of multi-modality imaging available for the management of patients with heart failure.

Further reading
Is there still a place for echo?
Alison Duncan (Royal Brompton Hospital, London)

ACC/AHA and ESC guidelines state that echocardiography is the single most useful test in the diagnosis of heart failure. As well as establishing the diagnosis of heart failure, echocardiography is a primary imaging tool for refining the differential diagnosis, directing further investigations, identifying associated features of heart failure and for monitoring the effects of treatment (including pacing). Echocardiography not only assesses cardiac morphology, but also provides detailed assessment of cardiac pathophysiology and haemodynamics. Other advantages are its accessibility (community, ward, departmental and ITU echocardiography, as well as cath lab and operating theatre peri-procedural imaging), lack of radiation and non-invasive nature, which make it an ideal imaging tool for patients with heart failure who may need multiple imaging follow up.

Philip Poole-Wilson Memorial Lecture
Therapeutic advances in heart failure: the non-vicious cycle of basic and clinical investigations
Marc A Pfeffer (Harvard Medical School & Brigham and Women’s Hospital, Boston, MA, USA)

The great strides that have been made in the past 30 years in reducing the morbidity and mortality for patients with heart failure have, for the most part, emanated from the incorporation and implementation of evidence generated by large randomised clinical outcome trials. These major international cooperative efforts did not occur in a vacuum and required a huge commitment of professional and financial resources. The objective of this lecture honoring the legacy of Professor Philip Poole-Wilson is to attempt to characterise the scientific underpinnings for the pretrial rationale of some of the major randomised clinical outcome trials that have generated information used to advance the care and improve the prognosis of patients with heart failure.
Left ventricular systolic dysfunction: the burden of stability – findings from the Heart failure and Optimal Outcomes from Pharmacy Study (HOOPS)

P Forsyth,† R Lowrie,‡ PS Jhund,⁢ N Greenlaw,‡ JJV McMurray,‡ FS Mair∗
(†NHS Greater Glasgow and Clyde, Pharmacy & Prescribing Support Unit; ‡University of Glasgow, BHF Cardiovascular Research Centre; §University of Glasgow, Robertson Centre for Biostatistics; ∗University of Glasgow, General Practice and Primary Care, Glasgow)

Background: The secondary care burden of left ventricular systolic dysfunction (LVSD) with or without heart failure (HF) is well described but less is known about primary care (PC) burden.

Purpose: To examine the PC service burden and costs of patients in the Heart failure and Optimal Outcomes from Pharmacy Study (HOOPS) and the factors that predict increasing PC use.

Methods: Data analysis of the control group from HOOPS (complete data n=973), a study of pharmacist intervention in stable LVSD +/- HF. Patients were randomised from 10/2004 to 09/2007. Counts of all-cause general practitioner and nurse contacts (office room, phone call or home visit) were collected direct from general practice one year post randomisation. Costs were attributed using tariff prices. Negative binomial regression tested whether age, sex, socioeconomic status, number of co-morbidities, loop diuretic use (proxy for symptomatic HF), LVSD duration, and LVSD severity were associated with total number of contacts. Variables were excluded if p≥0.2.

Results: Patients were 69% male, mean age 71 yrs. Baseline pharmacological treatment: 85% angiotensin-converting enzyme inhibitor (or angiotensin receptor blocker), 62% beta-blocker, 56% loop diuretic and 5% mineralocorticoid receptor antagonist. Mean annual PC contacts: general practitioner 7.4 (95%CI 7.0–7.7), nurse 3.8 (95%CI 3.6–4.1) and total 11.2 (95%CI 10.7–11.7). Higher number of co-morbidities, loop diuretic use and female sex predicted more total contacts. Greater LVSD severity and longer duration of LVSD were associated with fewer total contacts. Mean annual all-cause primary care costs (GP and nurse combined) were £306.41 per patient (95%CI £291.48–£321.33).

Conclusion: The PC burden of patients with LVSD +/- HF was high, with patients being reviewed almost once per month. Higher number of co-morbidities predicted increasing total PC contacts. More research is needed to test whether these are planned or unplanned contacts. Loop diuretic use (proxy for symptomatic HF) was a strong predictor of increasing total PC contacts. The decrease in PC contacts seen with increasing severity and longer duration of LVSD may represent competing risks and a tipping point in the balance of care (i.e. patients being reviewed by secondary care instead).

Conflicts of interest: None declared.

Table. Predictors of total primary care contacts

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<th>Mean annual total primary care contacts (CI)</th>
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<td>424</td>
<td>9.9 (9.3–10.6)</td>
<td>1</td>
<td></td>
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<tr>
<td>Yes</td>
<td>549</td>
<td>12.1 (11.4–12.9)</td>
<td>1.17 (1.07–1.27)</td>
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<td>LVSD severity</td>
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<tr>
<td>Moderate</td>
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<td>11.0 (10.2–11.7)</td>
<td>0.93 (0.85–1.02)</td>
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<td>Severe</td>
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<td>10.3 (9.4–11.3)</td>
<td>0.86 (0.76–0.96)</td>
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<td>0–1.99</td>
<td>282</td>
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<td>256</td>
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<tr>
<td>≥4</td>
<td>435</td>
<td>10.3 (9.7–11.0)</td>
<td>0.85 (0.78–0.94)</td>
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</table>

*Presenting author
Diagnostic and prognostic utility of cardiovascular magnetic resonance in heart failure with preserved ejection fraction

P Kanagala,1,∗ ASH Cheng,2 J McAdam,1 AM Marsh,1 IB Squire,1 LL Ng,1 GP McCann1
(1Department of Cardiovascular Sciences and NIHR Cardiovascular Biomedical Research Unit, Glenfield Hospital, Leicester; 2Kettering General Hospital, Kettering and NIHR Cardiovascular Biomedical Research Unit, Glenfield Hospital, Leicester)

Purpose: Heart failure with preserved ejection fraction (HFPEF) carries poor prognosis and definitive therapies are lacking. Transthoracic echocardiography (TTE) remains the primary diagnostic modality in HFPEF. We aimed to evaluate the diagnostic and prognostic utility of cardiovascular magnetic resonance (CMR) in HFPEF.

Methods: Patients were recruited as part of Developing Imaging And plasMa biomarkers In DescribIng-HFPEF (DIAMOND-HFPEF): a prospective, single-centre study. Inclusion criteria were: clinical or radiographic evidence of heart failure (HF) and ejection fraction >50% on TTE. Exclusion criteria were: myocardial infarction (MI) in the preceding 6 months, suspected or confirmed cardiomyopathy, constrictive pericarditis, non-cardiovascular life expectancy <6 months and severe valve/lung/renal disease. The CMR protocol included cine, adenosine stress/rest perfusion and late gadolinium enhancement imaging on a 3-Tesla scanner. Both TTE & CMR were performed during the index study visit and reported independently. Follow-up outcome data were collected at a minimum of 6 months post-enrollment for the primary endpoint (death and/or re-hospitalisation with HF).

Results: 154 patients (mean age 72.4±10.0 years, 51% male) underwent both CMR and TTE. CMR detected the following previously unknown diagnoses: significant coronary artery disease (n=20, including 14 with ‘silent’ MI), hypertrophic cardiomyopathy (n=10) and constrictive pericarditis (n=5). During follow-up (median = 623 days, interquartile range 455–753), there were 53 primary outcome events. Kaplan–Meier survival analysis (see Figure 1) revealed worse outcomes in the ‘new diagnoses group’ (Log Rank test p=0.046). In a multivariate Cox regression model comprising significant independent predictors during univariate analysis (diastolic blood pressure, NHYA class, urea and log BNP), only the ‘new diagnoses group’ (hazard ratio [HR]: 1.999; 95% confidence interval [CI]: 1.078 to 3.709; p=0.028) and urea (HR: 1.068; CI: 1.000 to 1.141; p=0.049) were significant predictors of outcomes.

Conclusion: In HFPEF, CMR identifies previously unknown pathologies in a significant minority. This group of ‘new diagnoses’ is associated with worse outcomes and is an independent predictor of death and/or re-hospitalisation with HF.

Conflicts of interest: None declared.

Figure. Kaplan-Meier survival plots for the composite end-point of death and/or re-hospitalisation from heart failure.
Employment following first hospitalisation for heart failure in patients of working age – a Danish nationwide cohort study

Søren Lund Kristensen,1,* Rasmus Rørth,1 Chih Wong MB,2 Kristian Kragholm,3 Emil L Fosbøl,1 Ulrik M Mogensen,1,2 Morten Lamberts,4 Mark Petrie,2 Pardeep S Jhund,2 Christian Torp-Pedersen,5 Gunnar H Gislason,4 John JV McMurray,2 Lars Kober1 (1Department of Cardiology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark; 2BHF Cardiovascular Research Centre, University of Glasgow, Glasgow, UK; 3Department of Anesthesiology and Intensive Care Medicine, Cardiovascular Research Centre, Aalborg University Hospital, Aalborg, Denmark; 4Department of Cardiology, Gentofte University Hospital, Copenhagen, Denmark; 5Department of Health, Science and Technology, Aalborg University, Aalborg, Denmark)

Purpose: Labour market attachment in patients with heart failure (HF) is not well studied. Our purpose was to assess the impact of first HF hospitalisation on subsequent labour market attachment in patients previously available to the labour market.

Methods and results: By linkage of nationwide Danish administrative registries, we identified 13,472 patients attached to the labour market at time of first HF hospitalisation in the period of 1997–2011. Patients were stratified into age groups; 18–30 years (n=462), 31–40 years (1129), 41–50 years (3328) and 51–60 years (8553). The outcomes of the study were loss of labour market attachment, and a combined endpoint with death one year after first HF hospitalisation. We estimated odds ratios (OR) for these outcomes according to selected predictors including age group, marital status, socioeconomic status and comorbidity.

The youngest patients were more likely to be fit to work prior to first HF hospitalisation. One year later ranging from the youngest to oldest age group, 26%, 34%, 36% and 39%, respectively, had lost their attachment to the labour market. Younger age protected against labour market dropout as compared with the older age groups of 51–60 years; 18–30 years (OR 0.59 (95% CI 0.47–0.74)), 31–40 years (OR 0.83 (95% CI 0.73–0.96)), 41–50 years (OR 0.92 (95% CI 0.84–1.01)), whereas a history of ischaemic heart disease (OR 1.31 (95% CI 1.20–1.45), chronic kidney disease (OR 1.51 (95% CI 1.15–1.98), stroke (OR 1.38 (95% CI 1.09–1.76)) and cancer (OR 1.53 (95% CI 1.23–1.90) all were associated with loss of attachment to the labour market.

Conclusion: One year after first HF hospitalisation, employment among patients of working age dropped more than 25% regardless of age group. Younger age, chronic kidney disease and cancer were the most significant predictors of employment status.

Figure. Employment among patients alive following first HF hospitalisation stratified by age group.

*Presenting author
Characteristics and prognosis of patients according to the severity of peripheral oedema – a report from the National (England & Wales) Heart Failure Audit

A Shoaib,1,* M Nasir,1 J John,1 A Raza,1 MN Attar,1 K Wong,1 T McDonagh,2 A Shote,3 AL Clark,1 JGF Cleland4 (1Academic Cardiology Castle Hill Hospital Hull; 2King’s College London; 3National Institute of Cardiovascular Outcomes Research; 4Imperial College London)

Introduction: Heart failure (HF) is one of the commonest reasons for hospital admission. Key symptoms of HF are breathlessness (pulmonary oedema) and peripheral oedema. Most studies of ‘acute’ heart failure focus on breathlessness but peripheral oedema might be the more important presentation. We tested the hypothesis that severity of peripheral oedema is associated with length of hospital stay and mortality during the index admission and after discharge.

Methods: Data were collected from April 2007 to March 2013 in more than 90% of hospitals in England & Wales for patients with a primary death or discharge diagnosis of heart failure. For this analysis, patients were grouped into ‘no’, ‘mild’, ‘moderate’ and ‘severe’ peripheral oedema. Patients’ characteristics and mortality during the index hospital admission for up to three years after discharge were reported.

Results: Of all 136,790 patients, peripheral oedema on admission was absent in 24%, mild in 25%, moderate in 32% and severe in 18%. Patients without oedema were younger (median age 77 years) as compared to mild, moderate and severe oedema (80, 80, and 79 years, respectively (p<0.001). Patients who had no oedema were more likely to have LVSD (66%) as compared to other groups (60%, 56% and 54% respectively) (p<0.001) and had shorter length of stay during the index admission (6 (IQR 3–13) days compared to 7 (IQR 3–14), 9 (IQR 5–17) and 12 (6–21) days respectively) (p<0.001). Index admission mortality was 7%, 8%, 10% and 16% (p<0.001) respectively, and at final censorship 39%, 46%, 52% and 59% (median follow-up 344 (IQR 94–766) days). The hazard ratio of death was 1.89 (CI 1.84–1.94) in patients with severe (p<0.001), 1.48 (CI 1.44–1.51) with moderate (p<0.001) and 1.20 ((CI 1.17–1.23) (p<0.001) with mild oedema when compared with those patients who did not have oedema. This difference in mortality remains significant after multivariate analysis.

Conclusion: Fewer patients with severe peripheral oedema had LVSD compared to those presenting with mild, moderate or no oedema. Length of stay increased progressively with increasing peripheral oedema severity as did mortality both during the index admission and thereafter.

Figure. Kaplan–Meier survival estimates after discharge according to severity of peripheral oedema.
ABSTRACTS: SESSION 4

Update from the BSH Research Fellow
Jane Cannon (University of Glasgow)

The clinical syndrome of heart failure imposes an immense burden of symptoms on patients, reduces quality of life and is one of the leading causes of hospitalisation and mortality, particularly in more developed countries. Due to ageing of the general population in these countries and improved survival from coronary artery disease, the prevalence of heart failure is expected to double within the next 40 years. Central to the treatment of heart failure is relatively complex multi-drug pharmacological treatment which requires careful biochemical surveillance and often leads to problems with adherence. Patient self-monitoring also plays a key role in the management of heart failure. Poor adherence is linked to an elevated risk of hospitalisation and death, whereas appropriate self-management may reduce these risks. Adherence and self-management may be jeopardised by cognitive impairment. Cognitive impairment has been reported in a variety of cardiovascular disorders. It is well documented among patients with hypertension, atrial fibrillation and coronary artery disease, especially after coronary artery bypass grafting. This background is relevant to the study of patients with heart failure as many, if not most, have a history of one or more of these co-morbidities.

In this presentation, I will present an overview of my ongoing clinical research looking at the association between heart failure and cognitive impairment, which has been generously supported through an educational grant from the British Society for Heart Failure and Servier.

There are no abstracts for the Hyde Park presentations

There are no abstracts for Session 5

Home monitoring & REM-HF update
John Morgan (University of Southampton)

Home monitoring for heart failure (HF) management continues to be a hot topic despite mixed evidence in the literature for the efficacy of remote monitoring technologies in reducing HF hospitalisations. Earlier expectations driven by a slew of smaller studies and meta-analysis were lowered after publication of the TELE-HF and TIM-HF studies which were disappointing in terms of clinical effectiveness. The HOME-HF study showed some clinical benefit but at high cost and without hospitalisation reduction. The IN-TRUST study showed clinical benefit in a single monitoring centre but that benefit seemed principally driven by arrhythmia management. SENSE-HF and DOT-HF were unable to show meaningful benefit and indeed seemed to indicate that remote monitoring (RM) could add to workload for little clinical benefit. The CONNECT study also showed limited patient benefit in a US context. However, there are a host of commercial organisations and academic projects active in the field, such is the demand from healthcare payers and systems for innovative and cost saving management approaches that will reduce HF hospitalisation frequency and / or duration. An emerging lesson is that the clinical work flow and patient acceptance are key features in developing technology based strategies that have the potential to be both effective and cost saving. The remote monitoring of heart failure study (REM-HF) is now closing having achieved all its milestones and recruiting 1651 patients. It is an event-driven study and patient follow up has been managed to ensure that the events necessary to power the testing of the primary hypothesis have been achieved, without compromising patient. Its design has been described in a peer-reviewed manuscript. In brief, REM-HF tested the hypothesis that weekly, protocol-driven, RM of ICDs and CRTD/Ps in a HF population would reduce all-cause mortality and HF hospitalisation compared to conventional management at 9 UK tertiary centres. Remote monitors (HF RM trained healthcare professionals from a technologist or nurse training background) were responsible for patient monitoring, data interpretation, patient interaction, and broad execution of the flexible follow-up protocol. In addition to the primary hypothesis testing, a rigorous and comprehensive cost-effectiveness analysis, designed in the context of the NHS, has been built into the protocol. Publication of the principal manuscript is expected in early to mid 2016.
ABSTRACTS: SESSION 6

What do we tell patients who are having ICDs?
Ewen Shepherd (Freeman Hospital, Newcastle upon Tyne)

Implanted devices have a legacy effect unlike many other medical interventions. The benefits of ICD therapy are clear and are easily communicated. Until recently the risks of these devices were extrapolated from old pacemaker studies but we now understand more about the risks of ICD and CRT procedures and devices. It is clear that risks have, in the past, been underestimated.

The GMC exhorts us to explain both acute risks and longer-term ‘legacy’ risks of the procedures we undertake.

We have used a popular internet search engine to identify UK-specific written information concerning device therapy used in the consent process. Currently available information provides some information about device therapy but little information is available concerning the risks (both acute and long term).

In addition, there is very little information available to patients about the discontinuation of device therapy through the disease process. However, some US data suggest that patients may prefer to have these discussions later in their ICD experience.

What to do when we can’t place the LV lead
Tim Betts (Oxford University Hospitals NHS Foundation Trust)

What should a cardiac resynchronisation therapy (CRT) implanter do when the left ventricular (LV) lead can’t be placed? Anatomical challenges are the greatest barrier to successful CRT. Valves, tortuous angles, myocardial scar and the phrenic nerve may all prevent successful LV lead placement, leading to complete failure or suboptimal lead positions. Fortunately, technology and innovation can overcome many of these barriers. Quadripolar pacing technology or heroic intervention with balloons and snares may still get a lead into the desired coronary venous branch. Epicardial surgical lead placement is an option, if the patient is robust enough. Endocardial left ventricular lead placement through a variety of routes has its enthusiasts, despite mandating lifelong anticoagulation. Alternatives to CRT, including vagal nerve stimulation, are being investigated. Don’t give up, there’s often a way.

Further reading
Worley SJ. How to use balloons as anchors to facilitate cannulation of the coronary sinus left ventricular lead placement and to regain lost coronary sinus or target vein access. Heart Rhythm 2009;6:1242–6.

From implantation to follow up – streamlining care
Jay Wright (Liverpool Heart & Chest Hospital)

This process in fact begins with appropriate patient selection and device prescription. Careful planning and patient education improves outcomes and prevents complications at a later stage. Implantation should aim to be on a day case basis with immaculate control of anticoagulants, glycaemia and renal function. Good pre- and peri-implant standard operating procedures and protocols are essential. Start planning follow up at the time of implant – comment on potential issues for optimisation relating to lead position, cardiac anatomy and arrhythmias. Early review is essential to ensure initial response. The use of a multi-disciplinary team should be encouraged, including physician, physiologist and heart failure/device specialist nurse. Concentration of medical optimisation, percentage pacing, arrhythmia detection/atrophicventricular node ablation and early referral for rehabilitation should all be part of routine care. Utilisation of echo optimisation and entry into research studies require a wider team that will all contribute to better quality of care and outcomes. Rigorous audit of this entire process will be presented along with novel cost models which incorporate remote follow up and shared care.
**Treating AF and heart failure**

Derek T Connelly *(Golden Jubilee National Hospital, Glasgow)*

The pharmacological options for controlling heart rate, or for restoring and maintaining sinus rhythm, in patients with heart failure and atrial fibrillation (AF) are extremely limited. Of the available drugs for rate control, calcium channel blockers are contraindicated because of their negative inotropic effects. Digoxin may be effective in some patients, but several studies have drawn attention to adverse effects on mortality with digoxin use in AF. Beta-blockers are the mainstay of rate control therapy. Three beta-blockers are approved for use in heart failure: carvedilol, bisoprolol and slow-release metoprolol. The evidence for their efficacy in patients with AF and heart failure, and important differences between these drugs, will be examined in this presentation. Recent national (NICE) and international (ESC) guidelines give different recommendations on whether or not amiodarone should be used for rate control.

Rhythm control options are even more limited: essentially the only drug routinely available is amiodarone. Class 1 anti-arrhythmic drugs are contraindicated, and sotalol is not indicated in heart failure. Dronedarone is not recommended in patients with heart failure. Several investigational Class 3 agents have been studied, but to date none of these has been approved for long-term use in the UK.

Selected patients with heart failure and AF may be eligible for catheter ablation. Several small studies have assessed the efficacy of this treatment, and most studies have documented improvement in symptoms and ejection fraction during short-term follow-up, but longer-term data are not available. Ablation for atrial flutter, however, is highly efficacious and extremely safe, and patients with heart failure and atrial flutter should be prioritised for ablation.

Antithrombotic therapy is of paramount importance in patients with AF and heart failure. Virtually all patients should be anticoagulated, either with warfarin (aiming for an international normalised ratio [INR] of 2–3) or with one of the novel direct-acting oral anticoagulants.

**Diabetes and heart failure**

Alison Evans *(Gloucestershire Hospitals NHS Foundation Trust)*

In 20 minutes I hope to provide a brief overview of diabetes and heart failure – looking at its incidence and how (& if) it differs from heart failure in the non-diabetic population. I will focus on the management of glycaemic control only, looking at the reasons why we aim for good glycaemia control, what blood glucose levels we should be targeting and the role of individualised targeting in a patient population often with significant medical co-morbidities.

I will then move on to look at the commonly used diabetic treatments that should be used in patients with both new onset and established heart failure, focusing on reviewing medications or the choice of diabetes treatment that might be more suitable to use in patients with heart failure. I am hoping to base this on the latest NICE Guideline for Type 2 Diabetes which is due to be published in October 2015.

I will look at links between some of the newer diabetes agents (SGLT2 inhibitors, which are the first oral hypoglycaemic agents to work by a non-insulin-related mechanism) and heart failure, with an overview of recently published trial data, relating this to heart failure.

I hope that by the end of the presentation the audience will have had an up to date review of currently recommended diabetes management with a practical focus on specific issues to be taken into consideration by healthcare professionals who do not have specific training in diabetes management.
Amyloidosis and infiltrative diseases – multidisciplinary models of care

Carol Whelan (National Amyloidosis Centre, UCL Medical School, Royal Free Hospital, London)

Systemic amyloidosis is a relatively rare multisystem disease caused by the deposition of misfolded protein in various tissues and organs. It may present to almost any specialty and diagnosis is frequently delayed. Cardiac involvement is a leading cause of morbidity and mortality, especially in primary light chain (AL) amyloidosis and in both wild type and hereditary transthyretin amyloidosis. The heart is also occasionally involved in acquired AA amyloidosis and other rare hereditary types. Clinical phenotype varies greatly between different types of amyloidosis, and even the cardiac presentation has a great spectrum. The incidence of amyloidosis is uncertain, but it is thought that the most frequently diagnosed AL amyloidosis has an annual incidence of 6–10 cases per million population in the UK and USA. Wild type transthyretin amyloid deposits, which predominantly accumulate in the heart, are very common at autopsy in the elderly and whilst the associated clinical syndrome known as senile systemic amyloidosis (wild type ATTR) is diagnosed rarely in life, there is increasing evidence that this disorder is much under-diagnosed and that with increasing longevity and improved diagnostic methods it may be identified as a substantial public health problem.

Cardiac amyloidosis, irrespective of type, presents as a restrictive cardiomyopathy characterised by progressive diastolic and subsequently systolic biventricular dysfunction and arrhythmia. Key ‘red flags’ to possible systemic amyloidosis include nephrotic syndrome, autonomic neuropathy (postural hypotension, diarrhoea), soft tissue infiltrations (macroglossia, carpal tunnel syndrome, respiratory disease), bleeding (e.g. cutaneous such as periorbital, gastrointestinal), malnutrition/cachexia and genetic predisposition (family history/ethnicity). Initial presentations may be cardiac with progressive exercise intolerance and heart failure. Other organ involvement, particularly in AL amyloidosis, may cloud the cardiac presentation (nephrotic syndrome, autonomic neuropathy, pulmonary or bronchial involvement). Pulmonary oedema is not common early in the disease process, but pleural and pericardial effusions and atrial arrhythmias are often seen.

Cardiac amyloidosis remains challenging to diagnose and to treat. Key ‘red-flags’ that should raise suspicion include clinical features indicating multi-system disease and concentric left ventricular (LV) thickening on echocardiography in the absence of increased voltage on ECG; the pattern of gadolinium enhancement on cardiac magnetic resonance (CMR) appears to be very characteristic. Confirmation of amyloid type is now possible in most cases through a combination of immunohistochemistry, DNA analysis and proteomics. Unlike other causes of heart failure, supportive treatment is mainly focused on diuretic therapy. Whilst developments in chemotherapy have greatly improved the outlook in AL amyloidosis, the prognosis of patients with advanced cardiac involvement remains very poor. Senile cardiac amyloidosis is probably greatly under-diagnosed, but CMR and DPD scintigraphy (using a specific bone tracer) show great potential to address this unmet need in the ageing population. A variety of novel specific therapies are on the near horizon, with potential to both inhibit new amyloid formation and enhance the clearance of existing deposits.

In my presentation, I will discuss the challenges of working with a multisystem disease involving several specialities and the development of a multidisciplinary team model of care.

References

Further reading
Heart failure genetics in everyday practice
Ruth Newbury-Ecob (University Hospitals Bristol NHS Foundation Trust)

Over the past decade advances in genetic technology have led to greater availability and use of genetic testing in clinical practice. At the same time clinical services for patients with inherited cardiac conditions (ICC) have developed to provide better assessment and management of patients with a range of cardiac disease including cardiomyopathies and arrhythmic disorders.

Cardiomyopathy (CM) is the commonest ICC. Clinical screening is recommended for first-degree relatives. Genetic testing can be helpful in determining the cause of CM and in directing appropriate risk stratification with regard to prognosis and treatment. Genetic testing may be used to identify individuals at risk within families and to target screening resources more efficiently. Genetic testing has to be interpreted alongside clinical assessment.

More recently, with the advent of gene panels, a large number of genes can be screened with better detection of causative variants, but with a higher likelihood of identifying variants of uncertain significance. Often more than one gene is identified, which supports the hypothesis of a polygenic or multifactorial disease.

Whole exome and genome sequencing will replace panels in the future with careful filtering of incidental findings. The NHS Personalised Medicine Strategy and 100,000 Genome Project propose to widen the access and availability to genomic testing across the NHS and for genomics to be introduced early in healthcare pathways to allow tailored treatment.

The pros and cons of genetic testing are presented using examples from families investigated through the ICC service.
Other mechanical treatments

Mark Petrie (Golden Jubilee National Hospital, Glasgow)

Mechanical devices in heart failure are increasingly used. The most common types are ventricular assist devices (VADs). Our knowledge of the pros and cons of these is increasing rapidly. Long-term or durable VADs are now encountered in most hospitals and are a core part of heart failure therapy. Salvage of acutely unwell patients with extra-corpooreal membrane oxygenation and short-term VADs is also an option.

Besides VADs, many other devices are being trialled. Devices for HEF-REF include the Parachute device, C Pulse, vagal nerve stimulators and Bioventrix. Devices for HF-PEF include the Corvia device.

Mark will review the current state of play for mechanical devices in heart failure.

Metabolic treatment

Michael Frenneaux (University of East Anglia, Norwich)

The heart requires vast amounts of energy in its role as a relentless pump. Indeed, it has been estimated that the human heart cycles approximately 6 kg of ATP daily.

Cardiac energetic status can be assessed non-invasively as the ratio of phosphocreatine to ATP (PCr/ATP), using 31-P cardiac magnetic resonance spectroscopy.

Energetic impairment has been reported in patients with dilated cardiomyopathy, hypertrophic cardiomyopathy, heart failure with normal left ventricular (LV) ejection fraction, aortic stenosis and in a number of other heart muscle diseases.

Multiple mechanisms contribute to this energetic impairment and will be discussed in the presentation.

Agents that cause a metabolic shift from predominant fatty acid to carbohydrate oxidation increase LV mechanical efficiency in experimental models. Two agents with actions, at least in part, via this mechanism (perhexiline and trimetazidine) have been shown to improve cardiac function and exercise capacity in patients with systolic heart failure and, in the case of perhexiline, also in patients with symptomatic, non-obstructive hypertrophic cardiomyopathy.
Percutaneous treatment: is mitral clip a treatment for heart failure?

Bernard Prendergast (Guy’s and St Thomas’ NHS Foundation Trust, London)

Congestive heart failure and mitral regurgitation are frequent clinical companions and associated with adverse prognosis. Despite the clear benefits of optimal medical therapy and possible advantages of cardiac resynchronisation in certain subsets, there remains a substantial pool of patients who are resistant to conventional treatment, remain highly symptomatic and drain clinical resources. Conventional mitral valve surgery is poorly validated in this cohort and frequently presents excessive risk.

Percutaneous mitral intervention is now a reality and the edge-to-edge (‘Mitraclip’) repair technique has expanded rapidly (particularly in Germany) with over 25,000 procedures performed worldwide. The procedure is safe and supported by international guidelines with appropriate caveats concerning patient selection, although its long-term clinical efficacy and place alongside conventional surgery are yet to be established. Experience within the UK is limited to date. Moreover, numerous novel devices for the palliation or total correction of mitral regurgitation are in investigational phase.

A cautious approach to the lure of new technology and enrollment of carefully selected patients into well-designed international collaborative trials with robust clinical endpoints is now appropriate.

Is it ‘doable’ – should we do it just because we can?

John Baxter (Sunderland Royal Hospital)

This talk will give practical advice on how to change pathways of care in your workplace.

Delegates will be shown various strategies designed to change pathways of care and advice will be given how to evaluate pathway changes.
Dr Lisa Anderson
Heart Failure lead St George’s Hospital, London
Honorary Reader in Cardiovascular Medicine
Dr Anderson trained at Liverpool Medical School, completing junior doctor rotations in Liverpool and London before joining the London (SW) Cardiology SpR training scheme.

Dr Anderson was BHF Fellow at the Royal Brompton Cardiac MR Unit from 1998 to 2001, developing a method (T2*) for early detection of cardiac iron and prevention of cardiac deaths in thalassaemia.

Dr Anderson was appointed as Consultant in Heart Failure (HF) at St George’s in 2005, has worked with GP colleagues and commissioners to build up Community Services and introduced hospital HF guidelines, a rapid access diagnostic clinic, CRT patient pathway and daily HF rounds.

To better integrate acute with community care, Dr Anderson and the heart failure team undertook an Integrated Care Pathway Review with GE, clinicians, managers and commissioners, and in 2014/15 local commissioners invested in a major CQUIN to develop an Acute Heart Failure Unit at St George’s.

Dr Anderson was appointed as Councillor to the BSH Board in 2015 and is a member of the NHS England London Heart Failure Strategy Group (and previously SW London Cardiac Network HF Lead).

Dr Anderson has ongoing research interests in Heart Failure and CMR.

Dr John Baxter
Dr John Baxter is a Consultant Geriatrician and Clinical Lead for heart failure in older persons at Sunderland Royal Hospital. He is an Observer on the Board of the BSH and is past Treasurer of the British Geriatric Society Cardiovascular Section. He is a Clinical Advisor to the National Council for Palliative Care.

Dr Simon Beggs
Simon Beggs is a Clinical Fellow with the Scottish National Advanced Heart Failure Service based at the Golden Jubilee National Hospital, Clydebank. After graduating from Edinburgh University Medical School, his early clinical training was in Glasgow. He is passionate about inpatient and outpatient clinical care, and research, within the field of heart failure.

Dr Tim Betts
Dr Tim Betts is a consultant cardiologist and electrophysiologist at Oxford University Hospitals NHS Foundation Trust. His principal interaction with heart failure patients is when they’re on the receiving end of a complex implantable device or ablation catheter. He occasionally has to extract devices, which is never a pleasant experience. His research interests cover endocardial left ventricular pacing and other mechanisms to facilitate delivery and maximise response to CRT. Along with ablation for atrial fibrillation, other clinical skills include left atrial appendage occlusion. Occasionally he runs very, very long distances, although the 500 meters that he carried the Olympic flame remains the best run of his life.

Dr Aidan Bolger
Aidan Bolger is a consultant in congenital heart disease at the East Midlands Congenital Heart Centre in Leicester but cut his heart failure teeth at the Royal Brompton Hospital/ NHLI. His PhD focused on immune and neurohormonal activation in heart failure and concluded by defining congenital heart disease as a heart failure syndrome. Whilst training at the Heart Hospital, Aidan’s research interest moved to pacing resynchronisation in patients with congenital heart disease and right bundle branch block undergoing surgery to the right ventricular outflow tract. Now working in a busy ACHD centre, there is plenty of scope to apply heart failure management principles to this complex patient group.

Dr Jane Cannon
Dr Jane Cannon is a cardiology registrar in the West of Scotland deanery who has recently undertaken a period of clinical research at the University of Glasgow looking at the association between heart failure and cognitive impairment. She graduated from the University of Glasgow in 2005 with an MBChB before entering clinical specialty training in cardiology. She was named as the inaugural BSH Research Fellow at the 2013 BSH Annual Autumn Meeting. Following her period of research she has now returned to clinical cardiology with the specialist interests of heart failure and devices.

Professor Andrew Clark
Professor Andrew Clark is professor of clinical cardiology in the University of Hull. He was educated at Pembroke College, Cambridge, and trained in medicine at Westminster Medical School. He trained in heart failure at the National Heart and Lung Institute and Glasgow Western Infirmary. He has published widely on aspects of heart failure, and is co-editor of the Oxford Textbook of Heart Failure. His research interests are in exercise physiology, the possible role of oxygen therapy for heart failure and the natural history of heart failure. He is a Past-Chair of the BSH.
**Professor John GF Cleland**
Professor Cleland qualified in medicine at the University of Glasgow in 1977 and was appointed Senior Lecturer in Cardiology at St. Mary’s Hospital, Paddington and the Hammersmith Hospital, London in 1989. In 1994, he was awarded a Senior Research Fellowship by the British Heart Foundation to transfer to the Medical Research Council’s Clinical Research Initiative in Heart Failure in Glasgow. Subsequently, he was appointed Professor of Cardiology at the University of Hull in 1999 and, in 2013, Professor of Clinical Cardiology, National Heart & Lung Institute, Imperial College London and Honorary Consultant Cardiologist to the Royal Brompton, Harefield and Hammersmith Hospitals.

His main area of interest is in heart failure, extending from its epidemiology and prevention, through the development and implementation of guidelines for the application of current knowledge, to large randomised trials. Particular current interests include the influence of myocardial substrate on therapeutic response, novel methods of delivering care and theranostics.

He is a Past Chairman of the European Society of Cardiology’s Working Group on Heart Failure and of the BSH, founder of the European Journal of Heart Failure, is a National Institute of Health Research Senior Investigator and Heart Failure Lead for England & Wales, is an editor on the Cochrane Collaboration’s Cardiovascular Group and was recently appointed to lead the European Heart Health’s Institute on “Innovation & Implementation”. He has published more than 800 papers in peer-reviewed journals and is a Thomson Reuters Highly Cited Researcher.

**Dr Derek T Connelly**
Derek Connelly is a Consultant Cardiologist with an interest in electrophysiology and devices at the West of Scotland Regional Heart & Lung Centre, Golden Jubilee National Hospital, and at Glasgow Royal Infirmary, Glasgow. He is an Honorary Associate Clinical Professor at the University of Glasgow.

He qualified in medicine at the University of Glasgow in 1984. After early training in medicine and cardiology in Glasgow, he moved to the Royal Brompton Hospital, London, in 1989 for a research post in cardiac electrophysiology. He then moved to the Cardiothoracic Centre – Liverpool in 1992 as senior registrar in cardiology. He was appointed senior lecturer and consultant cardiologist there in 1997, and moved back to a consultant cardiologist post in Glasgow in 2004.

His main interests are radiofrequency ablation for cardiac arrhythmias, particularly for atrial fibrillation, and device implantation, particularly biventricular devices (cardiac resynchronisation therapy). From 2005 to 2008 he was President of Heart Rhythm UK (now the British Heart Rhythm Society), and he was a trustee of the Arrhythmia Alliance since its foundation in 2004 until 2012.

**Dr Peter Cowburn**
Dr Peter Cowburn is a Consultant Cardiologist with a specialist interest in heart failure at University Hospital Southampton. His MD thesis was undertaken in Glasgow studying the haemodynamic effects of endothelin and endothelin receptor antagonists in patients with chronic heart failure (CHF). Following SpR training in the Wessex region, he completed an 18-month heart failure/device fellowship in Toronto, Canada, where he trained in cardiac resynchronisation therapy (CRT). He reported the first case series of inotrope-supported CRT and has an interest in the haemodynamic and renal effects of CRT. He was Deputy Chair of the BSH in 2007–9, having served as a Councillor to the Board in 2005–7. At Southampton General he helped establish a novel nurse-led inpatient heart failure service, which led to a dramatic reduction in inpatient mortality.

He established an inpatient ultrafiltration programme in 2010, the first in the UK. He was a member of the working group who published guidelines for the referral and assessment of adults for cardiac transplantation (Heart 2011). He was one of the document reviewers for the ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2012. He was delighted to be reappointed to the BSH Board as a Councillor this year.

**Professor Martin R Cowie MD MSc FRCP FRCP (Ed) FESC**
National Heart & Lung Institute, Imperial College, London, UK, & Royal Brompton Hospital, London, UK

Professor Martin Cowie is Professor of Cardiology at the National Heart & Lung Institute, Imperial College, London, UK, and Honorary Consultant Cardiologist at the Royal Brompton Hospital, London. A founding member and a past-Chair of the BSH, Professor Cowie is also a member of the Medical Advisory Committee of the Atrial Fibrillation Association. He has also been a Board member (and Chair of the Education Committee) of the Heart Failure Association of the European Society of Cardiology (ESC). He is the Specialty Advisor for Cardiovascular Interventions to the National Institute for Health and Care Excellence (NICE), and has sat on a number of its guideline and quality standard committees.

He is a member of the Cardiovascular Round Table and the EU Affairs Committee of the European Society of Cardiology. Professor Cowie’s research work and reviews have been featured in a variety of peer-reviewed journals, including The New England Journal of Medicine, The Lancet, British Medical Journal, JAMA, Circulation, European Heart Journal, Heart and the European Journal of Heart Failure. He has contributed chapters to many books, including the Oxford Textbook of Medicine, and has written a book for patients entitled Living with Heart Failure – A Guide for Patients. His research interests centre on health technology assessment, remote monitoring, and new diagnostic and treatment approaches for those living with cardiovascular conditions.

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Dr Ceri Davies
Dr Ceri Davies has been a Consultant Cardiologist and General Physician at Barts Health NHS Trust since 2005. After a period of research into heart failure at the Royal Brompton Hospital, his clinical training took place in NE London and Cambridge. His specialist interests are the management of heart failure and advanced non-invasive cardiac imaging (cardiac computed tomography and cardiac magnetic resonance imaging). He retains an interest in general cardiology and continues to take part in the general medical on-take rota at the Royal London Hospital. He was an Observer to the BSH Board from 2013 to 2015, and is now a Councillor.

Dr Alison Duncan
Dr Alison Duncan is Associate Specialist in Cardiology at The Royal Brompton Hospital. She has over 18 years’ experience in clinical transthoracic, transoesophageal, stress and 3D echocardiography. Her main clinical interests are structural heart disease and transcatheter intervention. She was Clinical Lead for Echocardiography at The Royal Brompton Hospital from 2007 to 2011. Since 2011, she has been an integral member of the Transcatheter Valve Programme at The Royal Brompton Hospital, specialising in transcatheter aortic and mitral interventions, including 3D echo-guided TAVI, MitraClip, transcatheter mitral valve intervention, mitral and aortic valve-in-Valve implantations and transcatheter mitral neo-chord procedures. She completed a PhD in “Physiological Stress Echo and Heart Failure” at Imperial College in 2004. Her research interests post-PhD included the use of echo in cardiac resynchronisation and in pacing optimisation, the identification of stress-induced mitral regurgitation in the heart failure population and aortic/mitral bioprosthesis failure. She is a national and international speaker on echocardiography, structural heart disease, UK-TAVI Registry, degenerate stentless aortic bioprosthesis degeneration and 3D-TOE imaging for structural valve disease.

Dr Alison Evans
I am the lead Consultant in Diabetes & Endocrinology at Gloucestershire Hospitals NHS Foundation Trust, and have been based at Cheltenham General Hospital since 2002. I represent the acute trust at the Gloucestershire Diabetes Clinical Network Group led by the CCG, which has an overarching role in the management of people with diabetes in both primary and secondary care.

My areas of interest within diabetes are the linking of primary and secondary care (to provide the right treatment at the right time in the right place for people with diabetes) and the management of renal disease in people with diabetes. At the other end of the spectrum I also provide pituitary and neuroendocrine speciality clinics for the county.

I am one of the consultants of the acute medical take rota and have ward-based general medical inpatients and therefore regularly acutely manage patients with cardiac failure, both with and without diabetes on the ward, as well as seeing more stable outpatients with diabetes.

Mr Paul Forsyth
Paul has worked as specialist heart failure pharmacist for the past 11 years, predominantly supporting chronic heart failure patients in primary care. However, he now currently runs two weekly outpatient clinics for post-MI patients with left ventricular systolic dysfunction and, along with Dr Clare Murphy, jointly leads the roll-out of these pharmacist-led clinics across seven hospital sites in NHS Greater Glasgow & Clyde.

Paul is an honorary lecturer in clinical pharmacy at Strathclyde University and annually guest lectures at the heart failure liaison nurse training course at Glasgow Caledonian University. He recently presented two different posters at the European Society of Cardiology Heart Failure Conference 2015, showcasing pharmacist interventions.

He has recently completed a Masters in Primary Care from the University of Glasgow. His final project studying the primary care burden of patients with LVSD will be presented at this meeting. Parts of this project have already been presented orally to the North American Primary Care Research Group Annual Conference 2014 and the results were accepted for poster presentation at the European Society of Cardiology Congress 2015.

Professor Michael Frenneaux
Professor Michael Frenneaux is Dean of Norwich Medical School.

He qualified from Westminster Medical School in 1980 and, after junior posts at Hammersmith, Brompton and Queen Square Hospitals, he trained in Cardiology at Hammersmith and St George’s Hospital in London, then in Edinburgh and in Christchurch, New Zealand.

He held BHF Chairs in Cardiff and Birmingham and, more recently, he was Regius Professor of Medicine at the University of Aberdeen. He is a Fellow of the Academy of Medical Sciences.

His clinical interests are in heart failure/heart muscle diseases. He is an integrated cardiovascular physiologist. One of his research themes has been in the role of cardiac energetic impairment in heart muscle diseases and the impact of metabolic modulators.

Dr Roy S Gardner
Consultant Cardiologist, Scottish National Advanced Heart Failure, Golden Jubilee National Hospital, Clydebank, Glasgow

- Specialist interests in advanced heart failure, cardiac transplantation, mechanical circulatory support and complex devices.
- Honorary Clinical Associate Professor, University of Glasgow.
- Author/Editor: Oxford Specialist Handbook of Heart Failure and Oxford Textbook of Heart Failure.
- Active research profile in heart failure, biomarkers and complex devices.
- On the ESC curriculum committees for advanced heart failure, and patient care.
- Treasurer of the BSH.
Dr Suzanna Hardman
Dr Suzanna Hardman is a Consultant Cardiologist with an Interest in Community Cardiology at Whittington Health, London, a newly integrated care organisation, delivering acute and community services. She developed and leads the heart failure services across the hospital and community, and related research, and is an Honorary Senior Lecturer at University College London.

A longstanding member of the BSH, and erstwhile Chair of the Society, she continues to be involved in a wide range of heart failure initiatives including the National Heart Failure Audit, the RSM Cardiology Committee, the Committee of the National Societies of the HFA, the UK HF curriculum review, the UK Heart Failure Standards and the NICE Acute Heart Failure Quality Standards following her GDG membership for the NICE Chronic Guidance (2010), the NICE Chronic HF Quality Standards (2011) and the NICE Acute HF Guidance (2014).

Dr Paramjit Jeetley
Dr Paramjit Jeetley is a Consultant Cardiologist at the Royal Free Hospital. He graduated from the University of Bristol and after a number of junior doctor posts in the South West, he undertook an MD at Northwick Park Hospital in London. His research was in the use of stress and contrast perfusion echocardiography in the assessment of patients presenting with acute chest pain. He returned to the South West to complete his training before being appointed to the Royal Free in 2011.

He has sub-speciality interests in heart failure and cardiac imaging, particularly echocardiography and cardiac CT. He is the service lead for Cardiology Integrated Care and is the clinical lead for community cardiology services in Barnet and Brent. He has worked closely with local CCGs in the development of community heart failure services and diagnostic pathways, as well as being an integral part of the heart failure team at The Free.

Dr Paul Kalra
Paul Kalra is a consultant cardiologist with specialist interest in heart failure at Portsmouth NHS Trust. He has championed local heart failure services, developing an integrated team of heart failure nurse specialists across primary and secondary care and initiating local ICD and CRT implantation. He has developed and leads a cardiovascular research programme in Portsmouth.

Paul has been on the BSH Board since 2009, and was recently appointed as Chair Elect. He was Programme Co-director of the Annual Meeting in 2010 and 2013, and of the Training/Revalidation meeting in 2010, 2011 and 2015.

He co-founded the Cardiorenal Forum, which has just held its 10th annual meeting and has recently received funding to conduct an outcome study of intravenous iron in patients with chronic heart failure (IRONMAN) in the UK. If your centre is interested in participating (due to start recruitment January 2016) please contact him at: paulkalra@doctors.org.uk.

Dr Prathap Kanagala
At the time of writing, I am on my first working day back in the hustle and bustle of clinical cardiology training following a few years out of programme whilst working towards a PhD. I completed my undergraduate training at the Royal Free Hospital and University College London. My interest in Heart Failure was consolidated at an early stage whilst working at the Royal Brompton and Harefield Hospitals and this passion has further evolved at Glenfield Hospital where I currently work.

I am currently sub-specialising in both Heart failure & Imaging and have previously served on the Education Committee for the British Society of Echocardiography. My current area of research nicely combines both of my sub-specialty interests and aims to better phenotype and develop novel imaging (cardiac MRI and echocardiography) and plasma biomarkers in HFPEF. My presentation at this meeting is the result of some of the work to date.

Dr Søren Lund Kristensen
Søren Lund Kristensen graduated from University of Copenhagen in 2010, and in 2014, he defended his PhD thesis looking at the intersection between inflammatory diseases and atherosclerosis. During his research, he quickly developed an interest in heart failure and began a collaboration with Professor Lars Køber at the University of Copenhagen. To pursue this interest further he spent a year as a Postdoctoral Research Fellow with Professor John McMurray’s research group at the BHF Cardiovascular Research Centre in Glasgow, UK.

Søren has presented his work at European and American meetings and won the HFA young clinical researcher prize at the ESC HF conference in Athens 2014. Søren has received research grants from the ESC and the Danish Council For Independent Research. He has published a number of papers in international peer-reviewed journals, applying data from Nationwide Danish registries and post-hoc analyses of randomised clinical trials in heart failure.

Currently, Søren is doing registrar training in cardiology in Copenhagen, Denmark, and will participate in the ESC postgraduate course in heart failure next year. Alongside this, Søren is co-supervising several research projects within heart failure led by Professor Lars Køber, and continuing his collaboration with John McMurray.

Mrs Annie MacCallum
I am Head of Specialist Services at Gloucestershire Care Services NHS Trust. A heart failure specialist nurse with experience in acute hospital and community heart failure care, I am responsible for a countywide multi-disciplinary community based Heart Failure Service. The service provides community echo, GPSI clinics and heart failure specialist nurse follow up for patients at all stages of their disease. I am a champion for the role of the specialist nurse in my own organisation, defining the academic requirements, skills, decision making and participation in audit, in order to demonstrate the effectiveness of specialist nurses in improving outcomes for patients. As a keen supporter of specialist nurse education, I have developed the programmes for the annual BSH Heart Failure Nurse Study Days with colleagues from their inception until the present day. I am a past Member of, and Observer to, the Board of the BSH.
**Professor Theresa McDonagh**
Theresa McDonagh is a Consultant Cardiologist and Clinical Lead for Heart Failure at King’s College Hospital, London. Her research interests are in clinical heart failure, in particular the epidemiology of heart failure and left ventricular dysfunction, and the role of biomarkers in both the diagnosis and prognosis of heart failure, and in the delivery of heart failure care. She is also the Clinical Lead for the National Heart Failure Audit and the Chair of the Clinical Section of the ESC Heart Failure Association.

**Professor John McMurray**
BSc (Hons) MB ChB (Hons) MD FRCP FESC FAACC FAHA FRSE FMedSci
John McMurray is Professor of Medical Cardiology and Deputy Director of the Institute of Cardiovascular and Medical Sciences at the University of Glasgow, UK, and honorary Consultant Cardiologist at the Queen Elizabeth University Hospital, Glasgow. He was the inaugural Eugene Braunwald Scholar in Cardiovascular (CV) Disease at the Brigham and Women’s Hospital, Boston, USA, and visiting Professor of Medicine, Harvard University, Boston, in 2010/2011, and is a Past-President of the Heart Failure Association of the European Society of Cardiology (ESC).

Professor McMurray’s primary research interest is in heart failure (HF) and his main research activity is clinical trials. He is, or was, the principal investigator, and member of the executive committee or steering committee in a number of large trials in HF, other CV diseases, renal disease and diabetes.

Professor McMurray sits on the editorial board of The New England Journal of Medicine, as well as several leading CV journals, including the European Heart Journal and European Journal of Heart Failure. He has published approximately 600 original papers, reviews, and book chapters and is the primary author or editor of 13 books. Professor McMurray was included in the 2014 listing of Highly Cited Researchers by Thomson-Reuters.

Professor McMurray was the lead author of the World Health Organization and first Scottish Intercollegiate Guidelines Network Guidelines on the Management of HF. In addition he was a member of the 2008 ESC HF Guidelines Task Force, and Chair of the 2012 Task Force, and member of the 2013 American College of Cardiology/American Heart Association HF Guidelines Committee and the 2014 National Institute for Health and Care Excellence (NICE) Acute HF Guideline Committee. He is a member of NICE Appraisal Committee A.

**Mrs Yvonne Millerick**
Mrs Yvonne Millerick is the Lead Nurse Lecturer for the heart failure palliative care “Caring Together” programme, within NHS Greater Glasgow & Clyde. The “Caring Together” programme is a partnership between the British Heart Foundation, Marie Curie, NHS Greater Glasgow & Clyde and Glasgow Caledonian University. Yvonne’s professional portfolio extends over a period of 30 years. Throughout this time she has developed her working knowledge of clinical, academic and leadership within cardiology, heart failure and supportive palliative care.

**Dr Jim Moore**
I studied medicine in Edinburgh before moving to Gloucestershire to work as a GP principal. I have an interest in cardiology and cardiovascular disease, particularly those aspects that are relevant to primary care. I was involved in the development of the primary care based Gloucestershire Heart Failure service where I currently work as a GPwSI. I continue to represent primary care in the cardiovascular arena at both a local and regional network level. I am currently a member of the National Heart Failure Audit Steering group and have previously served on the Board of the BSH.

**Professor John Morgan BA MA MB ChB MD FRCP FESC**
Professor of Cardiac Rhythm Management, University of Southampton

Honorary Contract (Level 2) with University Hospital Southampton NHS Foundation Trust

CMO Europe and Senior Medical Director, Boston Scientific

Since gaining a Personal Chair in Cardiac Rhythm Management (CRM) at the University of Southampton in 2007, I have continued to expand my research activity and focused on clinical developments of immediate direct benefit to patients and the NHS.

As a full time NHS clinician I was able to achieve remarkable success in grant acquisition for my research activities and have continued to demonstrate leadership in the CRM field, supervising postgraduate students and leading CV research activities both locally and nationally. Amongst other goals this work defines roles of new technology in management of chronic disease, intending to help the NHS meet the challenge of the aging demographic.

My work developing and implementing technology in the management of chronic disease aims to improve quality and reduce costs for the NHS. I have gained circa £5.5 million for UHS/UoS in grants for this work in the past 2 years.

I am a past co-Chair of EHRA’s Conference Organising Committee, Chair of its Scientific Initiative Committee and sat on its Nominations Committee. I am a founder of EP Wire. I was on the Steering Committee of European cardiac resynchronisation therapy survey, and AFNet, and lead for the UK on the European EAST study for AF ablation. I am also past-Chair of the UK’s Clinical Study Group determining research priorities for research areas in cardiac rhythm management.

I have published a career total of 250–300 peer-reviewed papers.
Professor Ruth Newbury-Ecob MBChB FRCPCH FRCP MD
Ruth is a full-time clinician and holds clinics in Bristol and Bath for patients of all ages with a wide range of genetic conditions. She is currently Lead for Cardiac Genetics in Bristol and works with cardiologists at the Bristol Heart Institute and the Bristol Royal Hospital for Children to develop services for patients with inherited cardiac conditions.

Her research has involved collaborating with groups internationally to identify genes for rare diseases and congenital malformations using new genetic technologies. She collaborates with Nottingham University, where her research originated, on the British Heart Foundation (BHF) programme “A genetic road map for congenital heart disease”. She provides expert opinion to clinicians worldwide and to families through patient support groups, and supports the National Specialised Service for Barth syndrome in Bristol.

She has worked with the molecular genetics laboratory in Bristol to develop service testing for elastin and a comprehensive paediatric cardiomyopathy gene panel test.

Ruth has spoken at national and international meetings, including the American Society of Human Genetics and the British Cardiovascular Society, and gave the Bristol Heart Institute Public Lecture in 2010.

She has represented clinical genetics on committees and working parties for the Royal Colleges and the Department of Health. She is President of the UK Clinical Genetics Society.

Dr David Patterson MD, FRCP, FRSPH
David is Consultant Physician and Cardiologist based at Whittington Health. He is also Emeritus Professor of Cardiovascular Medicine at UCL and the University of London. He is the only cardiovascular clinician in the UK actively involved in delivering a community focused anticoagulant and stroke prevention service.

David led his clinical department to achieve the Charter Mark over 15 years ago. More recently, the department has been awarded the Customer Service Excellence standard, for hospital inpatient and outpatient services, together with the community delivered services across north central London.

For many years David was a Board member of the Service Development and Organisation (SDO), which is part of the National Institute of Health Research (NIHR). He has also served as a member of the Executive Group of the Central and East London NIHR Comprehensive Local Research Network.

His clinical interests include:
- the prevention of coronary artery disease
- the use of activity and exercise both in the prevention of, and in the treatment of, cardiovascular disease
- the development of new models of service delivery
- the clinical governance of a “distributed clinical service”.

Over recent years, in collaboration with CHIME (UCL Centre for Health Informatics and Multiprofessional Education), David has developed and evaluated clinical information and advisory systems in a distributed service model. In 2012 he was one of the founders of a UCL spin out company, Helicon Health, and is now Chief Medical Officer.

David chairs The Institute of Sports and Exercise Medicine, a unique multi-professional charity which helped to create the medical discipline of Sports and Exercise Medicine, and is now focusing on the roles of exercise, activity and dance in the prevention of illness and in its treatment.

Dr Mark Petrie
Mark is a Cardiologist who works in Glasgow. Mark is Chair of the Scottish Government Heart Failure Hub which aims to improve the care of patients with heart failure throughout the country. Mark works clinically in the Scottish Advanced Heart Failure Service and in Glasgow Royal Infirmary where he shares a heart failure clinic with Jackie Taylor, Karen Hogg, Kirstin Russell and Yvonne Millerick. Mark is also an interventional cardiologist. His research interests include heart failure in the young, coronary heart disease and heart failure, diabetes and heart failure, devices in heart failure and peripartum cardiomyopathy.

Professor Marc Pfeffer MD, PhD
Dr Marc Pfeffer is the Dzau Professor of Medicine at Harvard Medical School, and Senior Physician in the Cardiovascular Division at the Brigham and Women’s Hospital in Boston. A noted researcher, Dr Pfeffer, along with his late wife, Dr Janice Pfeffer, and Eugene Braunwald MD, is credited with introducing the concept that angiotensin-converting enzyme inhibitors (ACEIs) could attenuate adverse ventricular remodelling following myocardial infarction and that this use would result in a prolongation of survival and other clinical benefits. Since this initial discovery, he has had a principal role in several practice-changing clinical trials such as SAVE, CARE, HEART, VALIANT, CHARM, PEACE, ARISE, TREAT, ALTITUDE, TOPCAT and ELIXA.

Dr Pfeffer is considered as a team builder and takes pride in academic advancement of trainees and junior faculty collaborating on the trials. He is known for his fairness in data sharing and assisting others in developing meaningful scholarly works from study databases. He sets high standards for relationships with the sponsors whether industry or NHLBI.

Dr Pfeffer is Senior Associate Editor of Circulation and is a member of the Editorial Board of several other prominent journals. He serves on the Data Safety Monitoring Boards of major international trials. An internationally recognised expert in the field of cardiology, he was recognised by Science Watch as having the most “Hot Papers” (highly cited) in all of clinical medicine. Dr Pfeffer was listed as one of the highly influential biomedical researchers of 1996–2011 in the European Journal of Clinical Investigation. He is the recipient of the William Harvey Award of the American Society of Hypertension, the Okamoto Award from Japan’s Vascular Disease Research Foundation, the Clinical Research Prize, as well as, the James B. Herrick Award, both from the American Heart Association. Dr Pfeffer is an Honorary Fellow of the Royal College of Physicians and Surgeons of Glasgow and is the recipient of an Honorary Doctoral Degree from Sahlgrenska Academy, University of Gothenburg, Sweden.
**Dr Bernard Prendergast**  
Bernard Prendergast joined Guys and St Thomas’ Trust in March 2015 as Director of the Cardiac Structural Intervention Programme. Before recruitment to London, he trained in Cardiology in Cardiff, Paris and Edinburgh and undertook Consultant posts at Wythenshawe Hospital, Manchester (2001–2007) and the John Radcliffe Hospital, Oxford (2007–2015). Dr Prendergast has been Honorary Secretary of the British Cardiovascular and Cardiovascular Intervention Societies, and Chairman of the European Society of Cardiology Working Group on Valvular Heart Disease. Research interests, which are delivered via collaborative links between London and Oxford, focus on the epidemiology and treatment of valvular heart disease and he is Course Director of EuroPCR London Valves, the world’s largest specialist meeting in valve intervention.

**Professor Iain Squire**  
Professor Iain Squire qualified from Glasgow University in 1987. He trained first at Glasgow, where he held the position of Lecturer, and then at the University of Leicester, where he was initially Lecturer then Senior Lecturer in Medicine & Therapeutics. He was awarded a personal Chair in April 2009, and is also Honorary Consultant Physician at the University Hospitals of Leicester NHS Trust. Professor Squire has responsibility for the 19-bed coronary care unit at Glenfield Hospital, Leicester, and is one of three consultants running the outpatient heart failure service there. He is Vice Chair of the NICE Technology Appraisals Committee A. Professor Squire is current Chair of the BSH Board, having held the positions of Councillor, Treasurer and Deputy Chair on the Board in the past.

**Dr Dargoi Satchi**  
I am a heart failure cardiologist working at the Royal Stoke University Hospital – the change in my workplace name from my prior blog for the BSH is a rebranding of our hospital (like Marathon to Snickers) rather than a change in location for me.

It is a privilege to be allowed to address an audience as passionate about heart failure as I am. It is an additional pleasure as frequent domestic arguments about heart failure care (between friends and family across the whole medical spectrum) have led to the topic being banned at home, and my high horse being stabled, with visiting rights denied.

I am grateful for the opportunity to use your soap box.

**Dr Ewen Shepherd**  
I have been a Consultant at Freeman Hospital since 2009, having trained in the North East.

Increasingly, my work is dominated by ablation of atrial arrhythmias but I do implant the occasional device including CRT. I am also one of two device extractors so I do get to see the good, the bad and the ugly of device therapy.

**Dr Jackie Taylor**  
After studying medicine at Glasgow University, Jackie Taylor trained and accredited in general medicine and geriatric medicine, developing her interest in heart failure at this formative time of her career. She became a Lecturer in Geriatric Medicine, is a Consultant in Medicine for the Elderly at Glasgow Royal Infirmary and was previously Associate Medical Director for the specialty for NHS Greater Glasgow and Clyde (GGC). Dr Taylor represents Geriatric medicine on the Heart Failure Sub-Group of the Cardiac Managed Clinical Network for GGC, responsible for developing and delivering the Heart Failure Strategy. She is Chair of the Cardiovascular Division of the British Geriatrics Society. From a clinical perspective, Dr Taylor’s main interest is the development of comprehensive multi-professional services for heart failure patients and, in particular, in improving the organisation of care.

**Dr Ahmad Shoail**  
Ahmad Shoail is a Specialist Registrar Cardiology in Yorkshire & Humber postgraduate deanery, clinical research fellow and Honorary Senior Clinical Tutor in Hull York Medical School. Dr Shoail qualified and trained in Pakistan where he set up and managed a successful heart failure clinic before immigrating to the UK. His clinical and research interests are centred on the presentation and care of patients with acute heart failure. He has now completed his MD, presented his findings at national and international meetings (both sides of the Atlantic) and published several papers with many more in press; one on the epidemiology of acute heart failure phenotypes has caused fundamental change to clinical perception. He was nominated for runner up in the BSH ‘Young Investigators’ Award’ at the 16th BSH Annual Meeting. He is an author of a book, Key to Success for MRCP PACES Station 5, published in 2014. Throughout his professional career, he was actively involved in under and post graduate medical teaching. He is the principal investigator of the ‘Characteristics and Outcome of Patients According to the Severity of Peripheral Oedema in the National (England & Wales) Heart Failure Audit’ project and is going to present the preliminary results at the 18th BSH Autumn Meeting.

**Dr Jenny Welstand**  
Jenny Welstand undertook her nurse training at Charing Cross Hospital in London qualifying in 1986. She has a broad experience in both surgical and medical cardiac care; in 1990 she joined the cardiac unit in Oxford and developed roles in surgical pre-assessment, as a cardiology nurse practitioner and established a community cardiac rehabilitation service. Both of these later services included research elements and resulted in several joint publications.

Moving to North East Wales in 2002 she established an integrated heart failure service working between primary and secondary care. This service has substantially reduced readmissions and length of stay. In particular, the service focuses on helping patients to make sense of their diagnosis and supporting them with the effects of living with a disabling condition.

After 8 years part-time study Jenny was awarded a Doctorate in 2013, winning the Lord Jones prize for best thesis and defensive at viva at Glyndwr University. Her thesis investigated the patient’s experience of living with heart failure. Presenting her findings in 2010 at the Cardiovascular Nurses Spring Meeting in Geneva, she was thrilled when she won best oral presentation of conference. She has subsequently been invited twice to Denmark to deliver key note papers, and to present at the BSH Autumn Meeting and British Cardiac Society Annual Conference.

Jenny has served as a council member on the British Council of Cardiovascular Nursing. She was very pleased to be invited to join the Board of the BSH as a nurse observer in 2015.
**Dr Carol J Whelan MD FRCP**
Dr Carol Whelan was appointed in October 2009 as Consultant Cardiologist at the Royal Free Hospital, London, with an interest in imaging, heart failure and, in particular, cardiac amyloidosis. She was appointed as Honorary Senior Lecturer at UCL in recognition for her work at the National Amyloidosis Centre and was promoted to clinical lead for Heart Failure in 2011.

She has an interest in transthoracic and transoesophageal echocardiography and stress (exercise and dobutamine) echocardiography. She is actively involved in teaching and is joint clinical lead for the medical student teaching programme in cardiology.

Previously, she undertook a period of organised research training obtaining a MD degree titled ‘Relaxin: a new cardiovascular hormone? Comparative potency, mechanisms of action and interactions’. She has published these and other research findings and presented at national and international meetings. She has also written book chapters and reviews on the secondary prevention of myocardial infarction and the current management of heart failure, and has published widely on cardiac amyloidosis.

**Dr Simon Williams**
Consultant Cardiologist, Wythenshawe Hospital, South Manchester

Clinical lead for heart failure at Wythenshawe Hospital.

- Specialises in all aspects of heart failure: from community heart failure and general in-patient/out-patient management to complex pacing therapy and acute heart failure treatment/cardiac transplantation.
- Writes a few articles in leading magazines with his mates from time to time in his role as Senior Lecturer at the University of Manchester.
- Likes running, supporting Altrincham AFC and watching Coronation Street.

**Dr Simon Woldman**
Simon Woldman is clinical lead for HF for UCL Partners and the co-chair of the Heart Failure subgroup of the London Strategic Cardiac Leadership Group. Dr Woldman trained in West of Scotland before taking up a consultant post at The Ayr Hospital in 2001, before moving to UCLH in London in 2006.

He has a research interest on the impact of whole system measurements on the management of heart failure. He is currently the Clinical Director of Specialist Cardiology at Barts Heart Centre.

**Dr Jay Wright**
Having qualified in Leeds (1990) early training posts were completed in West Yorkshire. Post MRCP (1994) an MD was undertaken with supervision from Dr Bun Tan at the University of Leeds. Exploration of cardiac function and physiology before and after therapeutic intervention provided insight into revascularisation, valve disease and exercise training. An interest in heart failure was sparked and papers plus the award of MD with commendation followed. A move to the Mersey Deanery (1999) was necessary for specialist registrar training. Early exposure to interventional and device training coincided with the evolution of CRT. Training under Derek Connolly and Dick Charles, Dr Wright performed some of the earliest CRTD and SICD implants in the UK. Having been appointed as the first heart failure and device specialist in the UK (2004) the device service at Liverpool Heart and Chest Hospital is now one of the largest in Europe performing >1500 procedures annually. Dr Wright currently sits on the steering committees of several international RCTs and has developed research interests in device optimisation, complications and innovations. He is Chair of the heart failure subgroup at the Institute of Cardiovascular Medicine and Science and sets the EHRA device competency exam.
EXHIBITORS AND CONTRIBUTORS

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BAYER HEALTHCARE
Bayer is pleased to support this event as manufacturers of one of the first novel agents (NOACs) to be indicated for the treatment of stroke prevention in atrial fibrillation. Bayer has a proud history in thrombosis research and continues to develop effective and safe treatments for patients and clinicians alike.

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ALLIANCE FOR HEART FAILURE
The Alliance for Heart Failure is a campaign group for heart failure with the aim of strengthening the voice and profile of heart failure in the NHS, Government and the media to help drive greater awareness and diagnosis of the condition and support improvements in heart failure outcomes for patients.

We are a coalition of 10 stakeholders with an interest in heart failure, members include: British Association for Nursing in Cardiovascular Care; British Society for Echocardiography; British Society for Heart Failure; Cardiomyopathy UK; Cardiovascular Care Partnership; Kent Surrey and Sussex AHSN; Medtronic; Novartis; Pumping Marvellous and South East Coast SCN.

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One of the world's leading manufacturers of cardio- and endovascular medical devices, BIOTRONIK is headquartered in Berlin, Germany, and represented in over 100 countries by a global workforce of more than 5600 employees. Several million patients have received BIOTRONIK implants designed to save lives and improve quality of life.

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BOSTON SCIENTIFIC
Beyond CRM, Boston Scientific products and technologies are used to diagnose or treat a wide range of medical conditions, including heart, digestive, pulmonary, vascular, urological, women’s health, and chronic pain conditions. We continue to innovate in these areas and are extending our innovations into new geographies and markets, and to combine product-based interventions with longer-term service partnerships.

One example of our partnership offering is our innovative Care Pathway Transformation Programme. This uses a combination of pathway design, technology platforms and patient engagement to reduce costs and improve outcomes for patients suffering from heart failure. The programme is founded on the principle that integrating care around a patient will drive a more effective deployment of resources and reduce cost pressure. Once embedded, the learning and key changes implemented can then be adapted and phased across other long-term conditions that represent key priorities to the local health economy.

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BRITISH HEART FOUNDATION
For over 50 years we’ve pioneered research that’s transformed the lives of millions of people living with cardiovascular disease. Our work has been central to the discoveries of vital treatments that are changing the fight against heart disease. But cardiovascular disease still kills around one in four people in the UK, stealing them away from their families and loved ones. From babies born with life threatening heart problems, to the many mums, dads and grandparents who survive a heart attack and endure the daily battles of heart failure.

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BRITISH SOCIETY FOR HEART FAILURE (BSH)
The BSH is a multi-disciplinary society and membership is open to all healthcare professionals involved with the diagnosis, treatment and management of heart failure, and research in this area.

The aims of the BSH are as follows:
• to increase knowledge and promote research about the diagnosis, causes, management and consequences of heart failure amongst healthcare professionals, with the intention of delaying or preventing the onset of heart failure and improving care for patients with heart failure
• to provide expert advice to healthcare professionals, patient or government organisations, including the National Health Service, when appropriate and as requested.

At present the BSH has nearly 1,200 members and ten companies that are Friends of the BSH. The BSH Board consists of the following members: Professor Iain Squire (Chair), Professor Andrew Clark (Past-Chair), Dr Paul Kalra (Chair-Elect), Dr Simon Williams (Deputy-Chair), Dr Roy Gardner (Treasurer), Dr Lisa Anderson, Dr Peter Cowburn and Dr Ceri Davies as Councillors. The Observers to the Board are as follows: Dr Chris Arden, Dr John Baxter, Dr Parminder Chaggar, Mrs Jayne Masters, Professor John McMurray and Dr Jenny Welstand.

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CARDIOMYOPATHY UK
Cardiomyopathy UK is a national charity that provides information and support to families affected by cardiomyopathy. People diagnosed with cardiomyopathy are often faced with a bewildering search for answers to the many questions that arise. Cardiomyopathy UK has developed information resources to help patients and their families to understand the various forms of cardiomyopathy. Information booklets are provided free of charge to individuals and hospitals.

The charity provides a ‘helpline’ service, which allows people to discuss their concerns with a qualified nurse. The charity’s website, www.cardiomyopathy.org, is a highly used resource containing a wealth of information about living with cardiomyopathy.

Cardiomyopathy UK organises information days around the UK for people affected by cardiomyopathy. These meetings provide the opportunity to learn more about the conditions and meet others similarly affected.

The charity works to improve health professionals’ knowledge of cardiomyopathy by organising high profile national conferences for doctors, nurses and associated professions to provide education on latest updates in the diagnosis, treatment and management of cardiomyopathy.

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KENT SURREY SUSSEX ACADEMIC HEALTH SCIENCE NETWORK (KSS AHSN)

KSS AHSN spreads innovation and best practice to improve health and generate economic growth by connecting health and social care, researchers and industry. We do this by creating partnerships, enabling collaboration and responding to the needs of clinicians and patients.

We support the NHS to improve how it identifies, adopts and spreads best practice, clinical innovation and new technology. This is crucial to help the NHS meet the challenges set out in NHS England’s Five Year Forward View.

We support industry and innovators to understand and engage with the NHS market, and to align their work with real clinical and market need.

Knowing what technology is out there is an ongoing challenge for health and social care organisations. Equally, developers of technology often have an imperfect understanding of clinical need. We help tackle this issue by connecting the NHS, researchers and industry.

We also host the Kent Surrey Sussex Patient Safety Collaborative which is working to help all health and care providers in the region, as well as service commissioners, to deliver the safest care they can and to improve all the time.

Our annual Expo and Awards, showcasing successful innovation and best practice, takes place in London on 19 January 2016.

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MEDTRONIC

As a global leader in medical technology, services and solutions, Medtronic improves the health and lives of millions of people each year. We believe our deep clinical, therapeutic and economic expertise can help address the complex challenges—such as rising costs, aging populations, and the burden of chronic disease—faced by families and healthcare systems today. But, we can’t do it alone. That’s why we’re committed to partnering in new ways and developing powerful solutions that deliver better patient outcomes.

Founded in 1949 as a medical repair company, we’re now among the world’s largest medical technology, services and solutions companies, employing more than 85,000 people worldwide, serving physicians, hospitals and patients in more than 160 countries. Join us in our commitment to take healthcare Further, Together. Learn more at Medtronic.com.

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MERCK SHARP & DOHME

At MSD we believe the most important thing we make is a difference. We operate in more than 140 countries and through our prescription medicines, including biologic therapies and animal health products, we work with customers to bring innovative healthcare solutions to those who need them the most. Through a joint venture, we are also collaborating to develop future vaccines. We also demonstrate our commitment to increasing access to healthcare through far-reaching policies, programmes and partnerships. For more information visit www.msd-uk.com. We are called MSD everywhere, except in the United States and Canada, where we are known as Merck & Co., Inc., Kenilworth, NJ, USA.

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NOVARTIS PHARMACEUTICALS

Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Our strategy is to deliver better outcomes for patients through science based innovation, and we aim to lead in growing areas of healthcare. In the UK we are the largest sponsor of commercial clinical trials.

We are a global leader in the three core areas of pharmaceuticals, eye care (Alcon) and generic medicines (Sandoz). In the UK Novartis has over 2000 associates across five sites, working in research and development, manufacturing, marketing, and commercial operations. Our commercial HQ is in Frimley, Surrey. For more information, please visit www.novartis.co.uk.

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At MSD we believe the most important thing we make is a difference. We operate in more than 140 countries and through our prescription medicines, including biologic therapies and animal health products, we work with customers to bring innovative healthcare solutions to those who need them the most. Through a joint venture, we are also collaborating to develop future vaccines. We also demonstrate our commitment to increasing access to healthcare through far-reaching policies, programmes and partnerships. For more information visit www.msd-uk.com. We are called MSD everywhere, except in the United States and Canada, where we are known as Merck & Co., Inc., Kenilworth, NJ, USA.

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We are a global leader in the three core areas of pharmaceuticals, eye care (Alcon) and generic medicines (Sandoz). In the UK Novartis has over 2000 associates across five sites, working in research and development, manufacturing, marketing, and commercial operations. Our commercial HQ is in Frimley, Surrey. For more information, please visit www.novartis.co.uk.

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PHARMA NORD
Pharma Nord is one of Europe’s leading manufacturers of dietary supplements and natural preventative medicines. The company develops, manufactures, and markets its range with emphasis on bio-availability, safety and documentation. In October 2014, the results of an international heart study were published in the Journal of the American College of Cardiology. The results showed that daily supplementation with Myoquinone (Co-enzyme Q10) improves survival in patients with chronic heart failure and works in conjunction with conventional treatments. In actual fact, the reduction in all-cause mortality in chronic heart failure patients was by more than 40%. Pharma Nord supplied the Myoquinone capsules during the 5 year study and Prof. Svend Mortensen, Chief Cardiologist from Copenhagen University Hospital said, “I definitely think that the results we have seen are extremely positive. We are looking at a shift of paradigm in the treatment of chronic heart failure”.

Pharma Nord preparations have been studied in over 200 clinical trials and are based on a substantial research database. They are used by hospitals, pharmacies, health food shops, practitioners and consumers. In terms of absorption, safety and efficacy, Pharma Nord products represent standards that most other brands cannot begin to meet.

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PUMPING MARVELLOUS FOUNDATION (PMF)
The Pumping Marvellous Foundation was founded to demonstrate leadership around the patient voice working in partnership with all stakeholders to ensure the patient and their families have the best quality of life that is achievable. PMF has four primary goals that act as a cohesive multi-disciplinary approach to heart failure care.
1. To support patients, carers and their families on how to self-manage the psychological, socio-economic, and physical, impacts on their lives that the condition imposes.
2. To improve timescales to diagnose heart failure at primary care gateways.
3. To increase the number of patients receiving specialist heart failure care and support.
4. To influence government, regulators and the pharmaceutical industry policies to reflect patient needs.

PMF carries out the following activities to achieve these goals
a) Working in partnership with clinicians, commissioners and a range of associated agencies to create patient-driven initiatives.
b) Acting as a catalyst to facilitate the progression of heart failure care.
c) Providing advocacy services to beneficiaries via a network of regional volunteers.
d) Lobbying MP’s and government officers to gain their support to increase awareness of heart failure.
e) Using peer-to-peer coaching and support of patients to promote, self-care, self-education and self-intervention.

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SERVIER LABORATORIES
Servier Laboratories is the UK subsidiary of The Servier Research Group, a French research based pharmaceutical company established in 1954 by Dr Jacques Servier. Created in 1963 with only two people, the UK subsidiary was the first subsidiary outside France. In just over fifty years, The Servier Research Group has developed in stature from a small family-owned, provincial pharmacy employing nine people to a multi-national operation, established in 140 countries. As an independent research foundation, with no shareholders, Servier has the freedom to be guided by clinical and patient need. Profits from the sales of our medicines are reinvested to fund research and the development of tomorrow's innovative medicines. Servier is focused on research and partnerships in the fields of cardiology, diabetes, rheumatology, neurology and oncology.

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ST. JUDE MEDICAL
St. Jude Medical is a global medical device manufacturer dedicated to transforming the treatment of some of the world’s most expensive epidemic diseases by creating cost-effective medical technologies that save and improve lives of patients globally. Clinical focus areas include cardiac rhythm management, atrial fibrillation, cardiovascular and neuromodulation. Visit sjm.com.

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Advance notice

For more information about the events below please visit the BSH desks in exhibition area II or www.bsh.org.uk

8th BSH Heart Failure Day For Revalidation and Training
3 March 2016, Golden Jubilee Conference Hotel, Glasgow

This training day programme has been designed by Dr Roy Gardner, Dr Parminder Chaggar and Dr Peter Cowburn to meet the educational needs of the heart failure component of the core curriculum in cardiovascular medicine, as well as the needs for advanced training in heart failure. It will provide an in-depth discussion around particularly challenging and often controversial management issues that will be relevant to trainees in internal medicine, care of the elderly specialists and GPs with a special interest in heart failure.

6th BSH Heart Failure Nurse and Healthcare Professional Study Day
4 March 2016, Golden Jubilee Conference Hotel, Glasgow

The study day programme has been designed by Mrs Jayne Masters, Mrs Annie MacCallum and Dr Jenny Welstand. The day aims to provide evidence-based knowledge from leading UK specialists in heart failure management, and in-depth discussion of particularly challenging and controversial management issues facing nurses caring for patients with heart failure. It is designed to educate and interest heart failure nurses and will be of interest to nurses, both early in their role and those with more experience.

European Heart Failure Awareness Day
6 May 2016

This is a Europe-wide day to raise the awareness of heart failure. The initiative is led by the European Society of Cardiology (ESC)/Heart Failure Association (HFA) and is supported by the BSH. More details are available on our website and we would be pleased to hear of the activities you might be planning locally.

We will be pleased to include details of any activities you might be planning locally on the BSH website (send to info@bsh.org.uk).

British Cardiovascular Society Annual Conference
6–8 June 2016 – Manchester Central, Manchester

The BSH will be involved with a number of heart failure-related sessions at this conference.

19th BSH Annual Autumn Meeting
24–25 November 2016, Queen Elizabeth II Centre, London
Healthcare professionals and company staff only are allowed inside the exhibition area outlined with a dotted line due to ABPI regulations.

Catering area

Exhibition Area I – Britten Room; Exhibition Area II – Whittle Room

18th BSH Annual Autumn Meeting, 26–27 November 2015

Exhibition Plan

Queen Elizabeth II Centre, London

Exhibition Area I – Britten Room; Exhibition Area II – Whittle Room

18th BSH Annual Autumn Meeting, 26–27 November 2015

Exhibition Plan
17:20 – 18:20, Thursday 26th November, Fleming Room

AN EDUCATIONAL SYMPOSIUM AT THE BRITISH SOCIETY FOR HEART FAILURE

FACULTY:
Chair: Professor John McMurray
Professor of Medical Cardiology, University of Glasgow
Professor Andrew Clark
Honorary Consultant Cardiologist, University of Hull
Dr Nigel Rowell
GP Locality Lead, South Tees CCG
Ms Alison Tennant
Deputy Director of Nursing and Quality, NHS England West Midlands

Please join leading clinical experts as we explore how to improve the profile of heart failure in the UK in an interactive clinical ‘crossfire’ panel discussion. We will challenge the current inertia over heart failure services in the UK, discuss any barriers to raising the profile of heart failure, and share policy, advocacy and clinical learning from other disciplines.