The 19th BSH Annual Autumn Meeting was held at the Queen Elizabeth II Centre in London on 24–25 November 2016. We were very happy to welcome visitors from overseas, old friends, and some new ones among the 700 delegates. This year’s meeting saw an excellent turnout for the nursing profession, reflecting the immense importance of Heart Failure Specialist Nurses and expanding opportunities for nurse researchers.

The programme directors, Dr Lisa Anderson (London), Dr John Baxter (Sunderland), Dr Parminder Chaggar (Manchester), and Dr Paul Kalra (Portsmouth), took as their theme Heart failure: the multisystem problem. Professor Michael Böhm (Germany) was this year’s keynote speaker.

The meeting was opened by the BSH Chair, Professor Iain Squire.

Session 1: Trials update

In Session 1, Professor Theresa McDonagh (London) gave her now traditional update on the National Heart Failure Audit. Unfortunately, as the audit itself has not yet been formally published (publication date thought to be March 2017), we are unable to report any of the details here.

Professor John McMurray (Glasgow) presented a clinical trials update, with a focus on this year’s major phase 3 mortality/morbidity trials. These were ATMOSPHERE*, REM-HF, TRUE-AHF, and DANISH – all neutral. In ATMOSPHERE, adding the direct renin inhibitor aliskerin to full-dose enalapril offered no advantage. In REM-HF, remote monitoring of cardiac implantable electronic devices did not improve outcomes compared with usual care. In TRUE-AHF, the vasodilator, ularitide, did not have an effect on long-term outcomes among patients presenting with acute heart failure. DANISH attracted a lot of attention this year because it concluded that there was no survival benefit for implantable cardioverter-defibrillators (ICDs) among patients with dilated cardiomyopathy (DCM). There might be some advantage in those who were young at the time of implantation, but the repercussion is likely to be a fall in the number of ICDs implanted for primary prevention. While this may seem like a lot of bad news, the importance of neutral trials should not be underestimated: they remain an important part of the evidence-base and inform practice.

*A list of study acronyms can be found on page 8.
Two trials of iron supplementation in heart failure were discussed: intravenous iron improved peak oxygen capacity (EFFECT-HF), but oral iron doesn’t improve outcomes (IRONOUT HF). IRONMAN is powered for hard long-term outcomes and is just starting to enrol patients. With more positive news, PARAGON-HF has finished recruiting, providing some hope that there might one day be an evidence-based intervention for heart failure with normal ejection fraction (HeFNEF).

**Session 2: Politics**

Session 2 focused on raising the profile of heart failure and the excellent work in political advocacy undertaken by members of the BSH. The All-Party Parliamentary Group (APPG) report, Focus on Heart Failure, was launched on 13 September 2016 and can be read in full on the BSH website.

Mr Stuart Andrew MP (Pudsey) chaired the APPG enquiry and presented the 10 recommendations of the report, which sit in three main categories: diagnosis (focusing particularly on the need to commission natriuretic peptide testing – the point picked up by national news outlets), treatment and care (emphasising the importance of early specialist input into patient care), and palliative care (particularly including the need for advanced care planning). Mr Andrew is evidently very passionate about improving care for patients with heart failure and said the APPG are committed to looking again in Autumn of next year to see what progress has been made.

The Alliance for Heart Failure was a key advisory body to the APPG during their enquiry. Co-chairs of the Alliance Steering Group, Mrs Angela Graves (Preston) and Professor Andrew Clark (Hull), shared reflections on their brief stint in politics. Mrs Graves said the most important thing for her was ensuring the patient voice was heard during the enquiry. Professor Clark stressed the importance of championing heart failure everywhere we go – to managers, CCGs, and local politicians. Positive experience with Mr Andrew and the APPG proves there are politicians willing to engage. He also advised getting patients to lobby, because there’s rather a lot of them – and MPs are responsive to their constituents. The Alliance will hopefully be a vehicle for combined engagement and future success.

We would like to celebrate the achievements of our members. Mrs Graves was awarded the Queen’s Award in 2014 for her commitment to high standards of care. Professor Clark was recently quoted in *The Sun*. Congratulations, both.

**Session 3: Systems of heart failure delivery**

Session 3 explored the way in which we deliver heart failure care. Professor Iain Squire (Leicester) began by discussing the best practice tariff (BPT) and NICE quality standards. NHS England introduced the BPT in 2015: it is no longer a voluntary endeavour, but a process by which trusts are reimbursed. To qualify for financial uplift, 70% of patients coded as heart failure in first diagnostic position in Hospital Episode Statistics must be submitted to the national audit and 60% of these must have had inpatient input from the heart failure team. Providers who do not meet both of these criteria will receive a price 10% below the BPT level. One of the main considerations here is that we will need to make entries to the audit more frequently – possibly even move to live input of data.

Mrs Jayne Masters (Southampton) shared her experience of helping patients to self-manage, and outlined the programme in place at Southampton. The aim is to identify and support people who are struggling. Patients in Mrs Master’s programme are often not eligible for inclusion in standard services – typically because they are very symptomatic or have HeFNEF – with a large co-morbidity burden.

Dr Jenny Welstand (Wrexham) told us about the success of her virtual telephone clinic in North East Wales – a formal part of the nurse-led service. The team has become confident making complex decisions by phone, but Dr Welstand stressed...
that this skill takes time to acquire. They have even devised methods of reaching the most remote areas, with one Welsh-speaking gentleman popping into the local post-office to take his call! Dr Welstand’s excellent presentation highlighted the importance of continued communication, not just with patients, but between members of the heart failure team.

Session 4: Difficult devices

Session 4 dealt with devices in heart failure. The first two talks advocated caution in selection and implantation. Dr Roy Gardner (Glasgow) presented an interactive selection of case studies to illustrate difficult device decisions. These included the potential for reversal of even severe left ventricular systolic dysfunction in the presence of broad QRS when good disease-modifying therapy for heart failure is used; and he highlighted the need to avoid resynchronisation in patients with narrow QRS complexes (<130 ms). We were reminded that cardiac resynchronisation therapy is indicated only in patients with symptoms despite optimal medical therapy. Interestingly, not many delegates said they would implant an ICD for DCM in light of the results from DANISH. The message here was that medical treatment does work and hearts can be better without devices.

Dr Archie Rao (Liverpool) discussed the impact of device decisions in young adults, encouraging a more holistic view of device therapy. **De-novo** implants are associated with up to a 6% risk of complications in the hardware lifetime, lead revisions carry a 20% morbidity rate, and infection rates are increased in young patients, particularly after box change. We should minimise the amount of hardware implanted by tailoring device decisions to patient needs, give preference to devices with the longest battery life to reduce box changes, and give consideration to the psychological aspects of defibrillator shocks. Devices are the right choice for selected patients, but the message from Dr Rao’s talk was ‘less is more’ – if the patient doesn’t need a device, don’t implant one.

Historically, there has been a mismatch between heart failure and device follow-up strategies. Mrs Paula Black (Blackpool) discussed the importance of team working, with better co-ordination and communication between heart failure and device clinics. She described the development of a traffic-light system to identify patients with devices at high risk of adverse events in her institution. Concern regarding a flood of unmanageable data was ameliorated by the results of a local pilot study indicating that only 5.7% of patients had high-risk features on remote device downloads. Mrs Black’s experience from Blackpool is one where the heart failure team works closely with cardiac physiologists to optimise care for all patients.

The second non-medical speaker of the day, Mr Martin Bromiley (Buckingham), shared his perspective on a different kind of difficult device – humans. As an airline pilot, Mr Bromiley is familiar with using checklists and protocols to optimise safety, and is keen to see how this can be translated into healthcare. Other industries, such as Formula 1 motor racing, have adapted systems to improve safety with impressive results. He set up the Clinical Human Factors Group (CHFG) after the death of his wife, Elaine, during a routine operation. In such a high-pressured environment, Mr Bromiley’s message to managers was that we need to be making it easy for people to do the right things.

Session 5: Research

In Session 5, we heard from the BSH Research Fellow, a nurse researcher, and the finalists for the Young Investigators’ Award. The BSH Research Fellow, Dr Simon Beggs (Glasgow), told us about his research project, which seeks to characterise the burden of arrhythmias in heart failure using new-generation minimally invasive injectable cardiac monitors (St. Jude Medical: not yet commercially available). The new device doesn’t require a single suture and is less than a third the size of an AAA battery! Enrolment of patients is expected to start in 2017.
Support for nursing research has been happily gaining momentum. **Miss Sophie Welch** (London) described her own journey into academia and routes others might consider. Sophie undertook a cardiorespiratory MSc at Imperial College, which led to her PhD. She is now part of the Heart failure specialists of Tomorrow (HoT) nucleus, which supports nurses in attending conferences and accessing other opportunities. The HFA and ESC offer grants for nurses to develop research skills, while the National Institute for Health Research and the Integrated Clinical Academic programme offer project funding.

For the Young Investigators’ Award, three finalists presented their research. **Dr Ross Campbell** (Glasgow) presented on the palliative care needs of patients admitted to hospital with heart failure. **Dr Brian Halliday** (London) told us about the prediction of sudden death risk in patients with DCM and mild/moderate left ventricular ejection fraction reduction. **Dr Shirley Sze** (Hull) presented her work on the prognostic value of simple frailty and malnutrition screening tools in patients with acute heart failure. The winner was Brian Halliday. Congratulations to all the young investigators.

**Session 6: Heart failure question time**

Question time was a new addition to the programme, giving delegates the chance to submit questions to a panel of experts, which included **Professor John Cleland**, **Professor Martin Cowie**, **Mrs Jayne Masters**, and **Dr Jim Moore**.

**Professor Andrew Clark** gave us his best David Dimbleby impression as he chaired proceedings, taking questions from esteemed colleagues, such as “the woman with the nice cardigan”. How we should be managing patients with HeFNEF was a key discussion point, with nurses wondering if they should be including this group in their care. The panel consensus was that many patients’ needs have nothing to do with ejection fraction and patients are equally deserving of our expertise. The related question, “What on earth should we be doing with heart failure with midrange ejection fraction?” was more difficult to answer. Professor Cleland said he thought this was going to be a useful term, if only to define research protocols better. However, many in the audience seemed less than convinced.

Question time generated lively debate and the hall remained full past the scheduled session: no mean feat given the next activity was the wine reception.

**Session 7: Service development**

Session 7 focused on sacubitril–valsartan, licenced for use in patients with symptomatic heart failure with reduced ejection fraction already taking a ‘stable’ dose of angiotensin-converting enzyme inhibitor (ACEi) or angiotensin receptor blocker (ARB). Despite early enthusiasm after PARADIGM-HF, clinical uptake has been somewhat underwhelming. **Dr Simon Williams** (Manchester) presented practical tips for introducing sacubitril–valsartan into the care pathway. First, the drug needs to be on the local formulary, and he advised engaging with your local hospital pharmacy. Sacubitril–valsartan should be initiated in outpatient clinics, with a pathway in place with primary care for follow-on prescribing. Sacubitril–valsartan is very good at reducing blood pressure, so care must be taken when initiating and uptitrating. Concomitant ACEi and sacubitril–valsartan use is dangerous, and Dr Williams shared his positive experience of using the hospital pharmacy to remove ACEi from dosette boxes and blister packs prior to issuing prescriptions. For further guidance, see the NICE adoption support resource.

We really need to pull together to get the ball rolling on sacubitril–valsartan. If anyone would like advice or support, please speak to colleagues in other areas of the country, who will be more than happy to help troubleshoot any issues you might be facing. Many outside the heart failure field are still unaware of sacubitril–valsartan and its implications for our patients, so we need to be the cheerleaders for change in our local areas.
Session 8: Kidneys and the heart

Heart failure specialists frequently consider the kidneys – they seem to get in the way of a good treatment plan. However, there is a balance to be struck and nephrologists can provide the specialist support central to cardiorenal care.

After clarification on the correct pronunciation of the acronym for acute kidney injury (AKI) – apparently ‘ay-kay-eye’, not ‘a-kee’ – Dr Charles Tomson (Newcastle-upon-Tyne) discussed the problem of AKI in heart failure. AKI is associated with a worse prognosis, but causal associations between heart failure, renal failure, and poor outcomes can be difficult to delineate. In the following discussion, concerns were raised regarding the withdrawal of ACEi based on largely observational data, and it is unhelpful for GPs to be faced with conflicting views from nephrologists and cardiologists. This further emphasises the need for better supporting evidence. Proving why he’s one of our favourite nephrologists, Dr Tomson decried use of the term ‘nephrotoxic’ to describe ACEi/ARBs: an unhelpful association if you wish ever to get them started again.

Professor Martin Cowie (London) also discussed some of the challenges of managing heart failure and renal impairment, reiterating the evidence gap and resultant variation in practice. Much of what we do is expert-opinion based, and Professor Cowie emphasised the importance of getting input from our nephrology colleagues. As a point of interest he added that a large trial is about to start testing the value of wider use of ultrafiltration using a technique that can be used on a general cardiac ward and doesn’t need a high dependency unit renal ward – something to watch out for!

Professor Sunil Bhandari (Hull) summarised a plethora of research on iron deficiency and cardiorenal disease. He apologised in advance for introducing some rat data to the proceedings. Intravenous iron improves mitochondrial function. However, the dark side of iron replacement is that it can cause oxidative stress and endothelial dysfunction. Fibroblast growth factor-23 (FGF-23) rises in renal disease and increasing levels correlate with increasing mortality; rat data suggest that FGF-23 directly causes left ventricular hypertrophy (LVH). FGF-23 receptor blockade promotes LVH regression. Although it’s not clear what the clinical implications might be, initial studies suggest that different intravenous iron preparations appear to have differential effects on FGF-23. Professor Bhandari suggested that although there are the potential adverse effects of iron, replacement improves mitochondrial remodelling and bioenergetics and hence function, at least in animals.

Session 9: Muscles and the myocardium

Session 9 spotlighted peripheral changes in chronic heart failure. Dr Andrew Davies (Sunderland) gave us a practical guide to falls and dizziness. Contributors to falls in heart failure include skeletal muscle changes, reduced mobility, vasculopathies, arrhythmias, and medications. Multi-factorial interventions, therefore, confer most benefit. Dr Davies stressed the importance of teasing out exactly what patients mean by ‘dizziness’, as stopping ACEi/ARB for presumed postural hypotension should not be undertaken lightly. Use lying–standing blood pressure measurement as well as lying–standing heart rate to assess autonomic neuropathy. If drug-induced postural hypotension is suspected, use a beat-to-beat blood pressure device when assessing lying and standing blood pressure.

Dr Callum Chapman (Twickenham) discussed the concept of frailty, and began by checking we’d all been watching the spectacular Planet Earth II, using David Attenborough as an example of an older man in excellent health who still travels the world – in a hot air balloon no less! Dr Chapman stressed that frailty is not synonymous with chronological age: patients with heart failure, no matter what their age, are six times more likely to be frail. A show of hands revealed very few regularly doing frailty scores and Dr Chapman urged us not to forget the Comprehensive Geriatric Assessment (CGA). In the management of patients with frailty, it is important to treat the heart failure syndrome (start low, go slow), consider co-morbidities, and review medication – stopping can be just as helpful as prescribing. ESC guidelines recommend that we monitor frailty and address reversible
causes. Dr Chapman said that sometimes improving small things can make a difference.

Dr Aynsley Cowie (Ayr) walked us through developments in exercise-based rehabilitation, which has the potential to improve symptoms, disability, and exercise capacity, and to reduce hospitalisation. Despite a wealth of evidence, uptake of rehabilitation is low and very patchy across the country. Dr Cowie said more needs to be done to facilitate programmes and to look into home-based exercise regimens.

**Session 10: Keynote lecture**

In Session 10, Professor Michael Böhm (Germany) delivered an excellent Keynote lecture: Counting the cost of co-morbidities in heart failure. ESC Heart Failure Guidelines 2016 acknowledge that co-morbidities may interfere with diagnosis, treatment, hospitalisation, and mortality. He discussed the synergy between heart failure and common co-morbidities, particularly pulmonary disease. The message from Professor Böhm’s lecture was that greater evidence is needed in this area as co-morbidities represent an important challenge for future management. Professor Böhm surprised us all with the revelation that there are currently no Heart Failure Nurses in Germany! But rest assured, they’re on the way.

**Session 12: Microbes and the myocardium**

Session 12 outlined the importance of infection in heart failure. Dr Susanna Price (London) discussed the clinical impact of sepsis. For heart failure patients who develop sepsis and manage to get out of hospital, about 70% will die within the first 3 months. Of those who survive, many have poor quality of life. Dr Price encouraged all to use the Q-SOFA score, which uses respiratory rate, the Glasgow Coma Scale, and systolic blood pressure to assess risk. We need to be recognising and diagnosing early, as there is a 7% rise in mortality with every hour treatment for sepsis is delayed.

Dr Stephen Pettit (Cambridge) presented cases of myocarditis, while acknowledging that this is a relatively evidence-free zone. Myocarditis is a rare cause of heart failure with distinct prognostic variability – lymphocytic myocarditis tends to resolve, whereas giant cell myocarditis is commonly diagnosed post-mortem. Dr Pettit said cardiac troponin can be helpful in diagnosis and monitoring, as well as being a good way of attracting a cardiologist’s attention!
Session 13: Clinical cases

Session 13 used a case-based approach. The first speaker was introduced by Dr John Baxter (Sunderland) as someone who could lift anyone's spirits with a five-minute conversation: Professor Miriam Johnson (Hull), who works in specialist palliative care. She presented the case of Dennis (pseudonym), a 36-year-old man with class IV heart failure. Hospice care helped improve his symptoms and mobility – because his mobility improved, so did his quality of life and the ability of the team to treat his heart failure. He even discovered a hidden talent for storytelling, through which he was able to reconnect with his family. Over the next 15 years, Dennis was in and out of the palliative care service as needed. He died last year in the hospice. The lesson from Dennis is that the unpredictable trajectory of heart failure should not be seen as a reason to delay or dismiss specialist palliative involvement, but as an opportunity to provide high-quality integrated palliative care. There are now three adequately powered randomised controlled trials showing that integrated palliative care improves quality of life and, importantly, does not hasten death! Professor Johnson explained that currently many patients are getting too little, too late.

Dr Andrew Flett (Southampton) presented the case of Fireman Sam, a 40-year-old man with valve disease and heart failure. When Sam presented to A&E with breathlessness, despite ECG changes and lung crackles, heart failure was not suspected. Eight months later and more symptomatic, Sam was found to have a bicuspid aortic valve with aortic regurgitation and was referred for valve replacement. He subsequently also required implantation of a cardiac resynchronisation therapy defibrillator. A year after surgery, Sam was asymptomatic and back at work as a fire officer. Sam’s case underlined the importance of thorough investigation in atypical patients. It also rekindled a previous point of debate – should Sam be prescribed sacubitril–valsartan? He has significant left ventricular systolic dysfunction, but has only class I symptoms, and is thus not eligible: however, PARADIGM-HF recruited more class I patients than class IV.

Dr Parminder Chaggar (Manchester) presented the case of a 19-year-old woman with cardiogenic shock whose cardiomyopathy was due to her Addison’s disease. She was treated with a left ventricular assist device (LVAD) as bridge to recovery. Although on echo her left ventricular function appeared to improve when her Addison’s was treated, her haemodynamics worsened markedly when the LVAD was turned down to assess her for the possibility of LVAD removal. Transplant was not possible (due to the presence of multiple antibodies), and so LVAD became destination therapy. Sadly, she has had multiple LVAD-related complications. Median survival on a continuous flow LVAD is about 4 years, whereas median survival after a heart transplant is about 11 years. The lesson from this case is that pumps save lives in selected patients, but event-free survival is not quite as impressive: where possible, we should always look for an exit strategy.

The BSH Board at the conference. Back row (from left to right): Dr Parminder Chaggar, Dr Lisa Anderson, Dr Simon Williams, Dr Peter Cowburn, Dr John Baxter, Mrs Jayne Masters, Dr Jenny Welstand, Dr Chris Arden; Front row: Dr Paul Kalra, Professor Iain Squire, Professor Andrew Clark, Dr Roy Gardner. Dr Ceri Davies, Mr Paul Forsyth and Professor John McMurray were not available for the photograph.

Thanks to Ms Alexandra Abel, and also to Dr Parminder Chaggar, Professor Andrew Clark and Dr Peter Cowburn, for their contributions to this meeting report. Photos courtesy of Dr Roy Gardner.
Message from the BSH Chair

We would like to hear from you at info@bsh.org.uk if you have any particular issues or ideas that you would like to discuss further with the BSH Secretariat – either relating to the Annual Autumn Meetings or other BSH activities.

Study acronyms

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>ATMOSPHERE</td>
<td>Direct renin-inhibition with aliskiren alone and in combination with enalapril, compared with enalapril in heart failure</td>
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<td>DANISH</td>
<td>Defibrillator implantation in patients with non-ischaemic systolic heart failure</td>
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<td>EFFECT-HF</td>
<td>Effect of ferric carboxymaltose on exercise capacity in patients with iron deficiency and chronic heart failure</td>
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<tr>
<td>IRONMAN</td>
<td>Intravenous iron treatment in patients with heart failure and iron deficiency</td>
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<td>IRONOUT HF</td>
<td>Oral iron repletion effects on oxygen uptake in heart failure</td>
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<td>PARADIGM-HF</td>
<td>Prospective comparison of ARNi with ACEi to determine impact on global mortality and morbidity in heart failure</td>
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<tr>
<td>PARAGON-HF</td>
<td>Prospective comparison of ARNi with ARB global outcomes in heart failure with preserved ejection fraction</td>
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<tr>
<td>REM-HF</td>
<td>Remote management of heart failure using implanted devices and formalised follow-up procedures</td>
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<tr>
<td>TRUE-AHF</td>
<td>Short- and long-term effect of immediate vasodilator therapy in acutely decompensated heart failure</td>
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19th BSH Annual Autumn Meeting: acknowledgements

We are very grateful to all our sponsors and the Friends of the Society without whom the meeting would not have been possible.

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