A lifetime of specialist care

Royal Brompton & Harefield NHS
NHS Foundation Trust

annual review 2014/15

His Royal Highness The Prince of Wales visits the adult cystic fibrosis centre at Royal Brompton Hospital, which "does such wonderful work"

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introduction from the chairman and chief executive

It will come as no surprise to anyone who is familiar with our organisation, that any challenges encountered during 2014/15 were greatly outweighed by the impressive achievements recorded by staff throughout the Trust.

The last year has been characterised by a media spotlight firmly focused on the health service. Reports of unprecedented deficits, demand outstripping available funding, staff shortages and the introduction of seven-day working, have often led the news bulletins. But despite an almost constant stream of commentary and analysis, for staff at our hospitals it has been business as usual, with a focus on the one thing about which they care passionately – delivering high-quality patient care.

While furious debate erupted over the use of temporary staffing agencies, our research teams celebrated being chosen to take part in a three-year £300 million national initiative to sequence the genomes of 100,000 patients, to help better understand the role that genes play in disease. While concerns about NHS finances were discussed by commentators and economists, our paediatric teams were recognised for innovation and leadership that has seen children dependent on long-term ventilation being discharged after three months, rather than the national average time of seven to nine months. And while NHS provider organisations grappled with challenging new funding arrangements, a team of doctors and physicists in the cardiovascular biomedical research unit was developing a new MRI technique to offer a unique insight into the structure of the heart so that more informed diagnoses can be made.

That is not to say that staff are disinterested in the healthcare environment or the financial stability of the health service. Quite the contrary – their future and livelihoods depend on both. Every one of the national issues that has been debated publicly directly affects this Trust. But our staff, in common with NHS teams nationwide, have an innate ability to tune out of anything that distracts them from the day job.

Contained in the pages of this review are a number of impressive examples of how patients have benefited from this clear focus. It is this commitment that encourages patients to say, for example:

- “I had spent more than 15 years struggling with breathing. All it took was for one specialist consultant to do an endoscopy and identify the problem. I can’t tell you the jubilation I felt at that point, knowing that it would be sorted out.”
- “Meeting my surgeon for the first time, 18 months after my transplant, is quite incredible. Neither of us recognises the

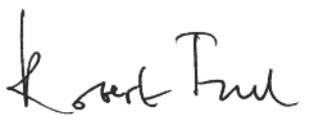
> “The nursing staff were amazing on AICU. The concentrated devotion to patients is relentless.”

other – me because I was too drugged up in intensive care to remember much, he because my health has improved so drastically that I am unrecognisable.

- "The nursing staff were amazing on AICU. The concentrated devotion to patients is relentless. I was included as part of his nursing team and everything they needed to do for him was explained to me."
- "Without having the transplant I don't think I would have survived past Christmas. I am deeply indebted to the team at Royal Brompton – if it wasn't for them I would never even have known I could be considered for a transplant."

And it is this commitment that has seen Trust experts: carry out complex heart surgery on a baby weighing just 2lbs 10 ounces; introduce life-changing lung volume reduction surgery for patients with chronic obstructive pulmonary disease; open a new aortic centre to treat patients with vascular diseases on site; offer remote heart monitoring via mobile devices as standard practice; and develop a new blood test to give patients with lung disease a better idea of their prognosis and the suitability of treatments.

There is no doubt that 2015/16 will be as challenging, if not more so, than 2014/15. But by maintaining a sharp focus on what they do best, our dedicated teams will ensure patients experience the expert, specialist care that they deserve.



Sir Robert Finch
Chairman

Mr Robert Bell
Chief executive

2014/15 in numbers

The Trust carried out more than 174,000 outpatient, diagnostic and imaging appointments and saw 35,706 inpatients

"By maintaining a sharp focus on what they do best, our dedicated teams will ensure patients experience the expert, specialist care that they deserve."

a values-led organisation

Royal Brompton & Harefield NHS Foundation Trust is a specialist heart and lung centre based in Chelsea, London and Harefield, Middlesex.

Our mission

The Trust's mission is to be the UK's leading specialist centre for heart and lung disease.

We to aim achieve this mission with strategic, focused growth in aspects of heart and lung treatment, such as congenital heart disease, arrhythmia, heart failure and advanced lung diseases.

Our approach

- The continual development of leading edge services through clinical refinement and research.
- The effective and efficient delivery of core specialist treatment.
- The transition of appropriate routine services to other centres to release capacity for new interventions.

Our values

The Trust's values are at the core of the organisation; our beliefs reflected in thought and behaviour.

There are seven values, developed by our staff. Three of the values are patient focused and demonstrate how we look after our patients to ensure their needs are met – whenever and wherever they need our expertise.

- We care
- We respect
- We are inclusive

The other four values act in support of them:

- We believe in our staff
- We are responsible
- We discover
- We share our knowledge

Demand for our specialist services continues to grow year-on-year. Our patients, from the unborn to the very elderly, come from all over the UK, Europe and further afield to be treated by our world-class clinical teams. We use our values to guide and support every decision and action we take, ensuring the delivery of safe, high-quality care to patients whose medical needs are often unique in their complexity.

We care about and respect our patients. We understand that coming into hospital can be an anxious time, not only for patients but also for their families and friends, and we aim to ensure that each person involved has the information he or she needs to make informed decisions about the care and treatment offered. We challenge ourselves to improve every day and are keen to take on board comments and suggestions from patients and carers.

We believe in being inclusive so that our specialist services are available to everyone who needs them. We are committed to the principle of shared care and maintain a strong presence in referring general hospitals and in the community.

An engaged and motivated workforce is vital to our success. As a specialist Trust, we recruit the best clinical and non-clinical staff from around the world and invest in their development. Several members of staff hold national leadership positions, and many are awarded and recognised as influential and respected innovators.

With our academic and industry partners we play a vital role in pushing forward the boundaries of medicine through research, and by sharing what we know through teaching, what we learn can help patients everywhere.

performance and achievements

Our experts in 2014/15:

- Carried out more than **174,000** outpatient, diagnostic and imaging appointments and saw **35,706** inpatients
- Scored over **98 per cent** from patients in the NHS England Family & Friends Test
- Achieved a **world first** by implanting a Tendyne transcatheter mitral valve system to treat mitral regurgitation (a leaking mitral heart valve)
- Performed **2,899** angiograms and **2,344** coronary angioplasties
- Fitted **3,395** pacemakers and implantable cardioverter defibrillators (ICDs)
- **Pioneered** homecare support to shorten the length of time patients need to stay in hospital
- Recommended by **92 per cent** of staff in the NHS England Family & Friends Test
- Performed **708** paediatric cardiac procedures and admitted **2,546** children with heart and lung conditions
- Conducted **8,473** appointments with paediatric (under 16 years of age) cardiology and respiratory outpatients
- Carried out **6,169** inpatient and **8,986** outpatient CT scans
- Performed **18,445** echocardiograms at Royal Brompton Hospital and **13,191** at Harefield Hospital
- Helped **nearly 1,000** cystic fibrosis (CF) patients
- Recruited **3,149** patients into more than **175** research studies
- Achieved the 18-week NHS standard referral time for admitted patients **every month** between April 2014 and March 2015
- Achieved the 18-week NHS standard referral time for non-admitted patients **every month** between April 2014 and March 2015

we care

We believe our patients deserve the best possible specialist treatment for their heart and lung conditions, in a clean, safe place.

New service for patients

In a rapidly changing environment such as healthcare, providing the best possible specialist care for patients is an evolving concept. Services are regularly reviewed to ensure patients are experiencing high-quality care, delivered in the most effective way possible.

It is not unusual for patients with heart disease to have other problems with their circulatory system. Until recently, services were not available at the Trust to treat these patients, meaning they were often transferred to a different hospital.

With the appointment of the Trust's first vascular surgeon, Professor Nick Cheshire, patients with vascular problems can now be treated on site.

Professor Cheshire has an international reputation for his work in vascular surgery and is one of the founders of the British Society for Endovascular Therapy (BSET), which was set up to promote best outcomes through the use of safer, modern techniques. Explaining the concept, he says: "Many patients who have heart problems also have other arterial problems, such as aortic aneurysm or carotid stenosis, narrowing or blocking of the arteries. Similarly, people with vascular diseases frequently need to see a cardiologist or cardiac surgeon. Previously, there was little option but to operate in separate hospitals. This could often be a traumatic experience for patients and their families. Now they can be treated for both conditions without leaving our hospitals."

Since his appointment in January 2015, patients with aortic aneurysms have been successfully treated with the combined surgical efforts of Professor Cheshire and Mr Ulrich Rosendahl, consultant cardiac surgeon.

A new aortic centre

The appointment of Professor Cheshire means clinicians can now focus on the development of a comprehensive aortic centre, the first of its kind in the UK. The centre will combine traditional surgery with minimally-invasive techniques. This will put the Trust at the forefront of medical thinking, rivalling leading centres in the world. Professor Cheshire, who is an expert in minimally-invasive techniques, commented: "Centres across the world have begun to recognise a need to bring clinicians together to offer a more patient-focused service. Our surgical expertise and knowledge, coupled with our international reputation, means it makes sense for us to be leading the way in England and Wales."

The multidisciplinary team of specialists – doctors, nurses, radiologists and other health professionals – have between them amassed thousands of hours treating the most complex cases in England. They are all now working and accepting referrals under the banner of the new aortic centre.

Clinicians are spreading the word around the UK about the new service, offering referring surgeons the chance to join them in theatre to learn more about the combined specialist techniques.

The number of patients using the new aortic centre is likely to grow significantly as hospitals across the country are made aware of what the Trust can now provide.

Commenting, Mr Rosendahl said: "The Trust is internationally known as a pioneer within its field and is only one of two NHS trusts nationally that has the knowledge, expertise and equipment to offer a comprehensive service for patients with complex aortic problems. Developing the new aortic centre will further cement in people's minds that clinical teams within the Trust are constantly striving to provide the best possible specialist care for patients."

> "Clinicians can now focus on the development of a comprehensive aortic centre"

PATIENT EXPERIENCE

John Flowers, Royal Brompton cardiac patient, aged 72

John was diagnosed with a severe thoracoabdominal aneurysm (an abnormal enlargement of part of a blood vessel) and had his operation earlier this year (2015). He has made a full recovery and is extremely grateful for his care at the hospital.

John said: "Royal Brompton was always my first choice of hospital for the surgery, and my wife and I have not been disappointed. A routine scan of my heart found that I needed a triple heart bypass before my aneurysm could be treated. Thankfully, Mr Rosendahl insisted on bringing in Professor Cheshire, who is an expert in this type of complex condition, for the second procedure.

"Throughout it all the two surgeons showed such compassion and nothing was too much trouble – it was a pleasure to see. The nurses and other members of staff were first class too.

"I have always enjoyed life, but before my surgery even the most simple of tasks was becoming more and more difficult. Now I'm back to spending time doing what I love most; running around after my 20 grandchildren and great-grandchildren. The treatment offered by the team at Royal Brompton has been nothing short of life-changing."

Professor Nick Cheshire, vascular surgeon

Major investment in technology

Delivering the best possible specialist care requires the support of the best possible IT systems. Following the appointment of the Trust's first chief information officer (CIO), Joanna Smith, a multi-million pound investment programme to update IT infrastructure and significantly improve clinical and data systems was launched in 2014.

"If the Trust is to achieve its mission to be the UK's leading specialist centre for heart and lung disease, it is vital that staff can access systems and information whenever, wherever, and however they need them," explains Joanna.

"Delivery of our information and technology strategy will improve the quality of patient care by transforming our digital systems, improving knowledge management processes and expanding our research capabilities."

Over the last year a major programme of upgrades to core IT infrastructure, including network PCs and servers, has been carried out.

Significant progress has also been seen with the Digital Care Transformation Programme (DCTP):

- The clinical data warehouse (CDW) is now up and running. The warehouse provides a repository of key Trust clinical data with sophisticated analytical tools that enable clinicians to analyse significant volumes of structured and unstructured data.
- The electronic prescribing and medicines administration (EPMA) system is now used on several wards at Royal Brompton Hospital with further rollout to the rest of the Trust to follow. Benefits of electronic prescribing include reduced errors, swift represcribing for repeat admission patients, and remote access to medication records.
- A new patient administration system (PAS) has been procured and the project to implement it is already

underway. The system will hold "real time" data and provide precise tracking of a patient's admission, bed and ward location, clinic appointments, transfer and discharge.

- An electronic document management (EDM) solution has been procured and will be introduced shortly after the new PAS. The major benefit of EDM is that staff will have access to full online patient histories in one secure place. At the click of a button records can be searched, created, stored and retrieved. EDM eliminates manual paper-based processes including transporting paper case notes, and moves the Trust towards a paper-light environment.

- Digital "whiteboards" are replacing traditional boards in clinical areas. The new electronic screens provide an automated display, improving data quality and reducing time spent by ward staff on updating the board manually.

The EPMA and EDM systems were both jointly funded by NHS England as part of its integrated digital care fund (the Trust received one of the three largest awards from the fund).

The Trust is now among the top-rated hospitals for its use of information and technology as measured by the Clinical Digital Maturity Index (CDMI). A recent CDMI report specifically referred to the rollout of complex administrative and clinical systems.

> If the Trust is to achieve its mission to be the UK's leading specialist centre for heart and lung disease, it is vital that staff can access systems and information whenever, wherever, and however they need them.

Joanna Smith CIO (right), with Joy Anderson, lead nurse electronic transformation, inspecting a digital "whiteboard"

Amenities awards improve the experience for patients

To support staff in the delivery of high-quality care, the Trust's charity created the Patient Amenities Fund. On average, up to 90 applications are made annually to the fund's selection panel, which is made up of patients, staff and governors.

Applications are invited for any project that improves patients' and / or visitors' experience of the Trust.

Joy Godden, director of nursing and chair of the Patient Amenities Fund panel, said: "We are very grateful for the charity's support. It is always satisfying to approve applications with obvious benefits to patients. Projects range from ambitious ones that need a large investment through to straightforward ideas that don't cost a great deal, but still have a big impact on the quality of care."

Some recent projects include:

- Staff in the catheter labs at Harefield Hospital noticed that some patients felt uncomfortable in the cool, air-conditioned atmosphere. They applied to the Patient Amenities Fund for a blanket warming cabinet. Now patients are given warm blankets after their procedure. Warmed blankets are also available to patients who are waiting for procedures and who may be feeling anxious. A significant number of emergency patients are elderly and frail, and they particularly appreciate the comfort the blankets give.

- A successful application by the team from Royal Brompton's Foulis ward has made manoeuvring and weighing patients an easier and more dignified process. A new high-spec electronic hoist makes changing position smoother and more relaxing for patients, and as the weight mechanism is already attached to the powered hoists, patients can be weighed at the same time as they are moved. The entire hoisting process is now quicker and less disruptive to everyone.

The refurbished lounge serves patients being discharged and admitted to Maple and Cedar 1 and 2 wards at Harefield Hospital

- The lounge that serves patients being discharged from Maple and Cedar 1 and 2 wards at Harefield Hospital was in need of decoration. A successful application to the Patient Amenities Fund enabled a full redecoration to take place and the lounge now has comfortable, soft furnishings, a hot drinks machine and a wide variety of reading materials. A desk and computer have also been added so that a member of staff can work in the lounge and be on hand to help patients as they wait for their discharge prescriptions, follow-up arrangements and transport home.

- The provision of three portable CD and six MP3 players was quite a modest request to the Patient Amenities Fund, but the machines are being put to excellent clinical use. Relaxation techniques are often used by the psychological medicine service with patients on general wards, the adult intensive care unit (AICU) and the high dependency unit (HDU). The CD and MP3 players have allowed the team to develop this therapeutic approach and provide an option for patients to continue with relaxation outside therapy sessions. The CD or MP3 tracks can be used by patients on their own devices, so the therapeutic approach can be continued after discharge.

STAFF PROFILE

Dr Julia Selby, clinical lead speech and language therapist for voice, ENT and respiratory services at Royal Brompton

Dr Julia Selby joined the multidisciplinary upper airways service at Royal Brompton Hospital in March 2014.

The team, led by Dr James Hull, consultant respiratory physician, treats and supports patients with upper airway conditions including cough, vocal cord dysfunction and other voice box conditions. Patients are referred to the service from all over the UK and Europe. The appointment of a specialist speech therapist means patients can receive on-site expert support for:

- vocal cord dysfunction
- swallowing difficulties
- vocal cord complications
- chronic cough
- voice disorders
- vocal nodules caused by trauma
- laryngospasm (a spasm of the vocal cords).

"Prior to the appointment of Dr Selby, patients needing specialised speech therapy would have to attend Charing Cross Hospital in London, or, be referred back to their primary care provider where there was a strong possibility of them not being able to access

Dr Julia Selby, clinical lead speech and language therapist for voice, ENT and respiratory services, in conversation with a patient

treatments and the right expertise," said Dr Hull. "In London and the south of England, there is currently a great shortage of specialists with the expertise to treat conditions where the voice box closes. This condition mimics asthma and often patients suffer with daily symptoms and need to attend regular hospital appointments. The upper airway service at Royal Brompton is being developed specifically to address this unmet need".

Dr Selby sees patients, on average, for four to six sessions, and those presenting with persistent cough typically attend for two to four sessions. "Trials have shown that speech therapy is an effective treatment for patients with chronic cough and is often better than the standard drug treatments used. The results Dr Selby has achieved are impressive and, with some patients, quite remarkable," said Dr Hull.

Dr Selby commented: "I specialise in treatments for patients with more complex speech therapy needs like muscle tension voice disorders and hypersensitivity within the larynx; that's the feeling that something is stuck in the throat. My appointment as a member of the upper airways multidisciplinary team means we can now offer a full and co-ordinated approach. We also work closely with a world expert laryngologist and ENT surgeon at Chelsea and Westminster Hospital, Mr Gurpreet Sandhu.

"I advise patients that we are a team, working in a partnership to get the best results from the various therapies within my expertise. These can range from vocal exercises to breathing work or giving a laryngeal massage to a patient."

Paediatric rehabilitation care programme leads the way in the UK

In November 2014, the pioneering rehabilitation care programme (RCP) was launched at Royal Brompton Hospital to support children diagnosed with complex congenital heart defects. The service is the first of its kind in the UK.

The programme provides assessment and ongoing co-ordinated care for children in need of intensive rehabilitation and therapy support before and after their surgery. The programme was developed by Philippa Wright, Trust lead for paediatric rehabilitation and therapy.

The RCP multidisciplinary team works alongside cardiologists and specialist nurses to ensure patients are referred to the right specialist at the right time. Other members of the team include occupational therapists, speech and language therapists and dietitians.

Children with complex heart conditions, such as a ventricular septal defect (a hole in the wall that separates the right and left ventricles of the heart) or tetralogy of Fallot (a problem with the heart's structure and function due to abnormal development before birth), are often at risk of feeding difficulties, resulting in malnutrition and developmental problems. Both these issues can influence decisions about the timing of surgery, and may also influence the outcome.

Procedures to correct these types of defects account for approximately 30 per cent of paediatric surgeries performed at Royal Brompton each year.

Before the RCP was launched, no rehabilitation and therapy clinics were available at the Trust for these patients. Now there are outpatient clinics at both sites, including an innovative behavioural feeding clinic at Harefield Hospital, which is jointly run by speech and language therapists and dietitians.

Joshua playing on his tractor

PATIENT EXPERIENCE

Joshua Newman, congenital heart disease patient, Royal Brompton

Joshua Newman was born at 28 weeks, and weighed just 2lbs 7oz. He was diagnosed with congenital heart disease while in the womb and at just one day old was transferred to Royal Brompton's paediatric intensive care unit (PICU). He had two holes in his heart and a narrowing of the aorta, the main artery in the body.

Suzy, his mother, explained: "He needed surgery on his heart, but the clinicians caring for him wanted him to grow first. That's where the rehabilitation care programme came in. Philippa (Wright) was involved in Joshua's case from the start, modifying his diet to ensure he had extra calories to help him grow quicker."

Eventually, surgeons had to operate when Joshua still only weighed 2lbs 10oz and his heart was the size of a walnut.

Commenting on the surgery, Mr Olivier Ghez, consultant paediatric cardiac surgeon, said: "Although Joshua was born with a relatively common congenital heart defect, he was the smallest baby we had ever operated on with this condition. We decided we needed to carry out the operation despite the risks associated with him being so small. The procedure was a success and allowed him to survive and grow."

The operation was swiftly followed by surgery for a life-threatening bowel condition, common in premature babies, which was performed at Royal Brompton by a paediatric surgeon from Chelsea & Westminster Hospital.

Following this, it became obvious that Joshua would need further heart surgery once he had grown stronger. Again, the RCP team worked hard to get him well enough for surgery.

Suzy said: "His first operation bought him some time; without it he wouldn't have survived. We needed to get him strong enough for further major surgery and the team was fantastic. Physios kept his muscles and joints moving and also helped with exercises to strengthen his lungs. Dietitians devised a high-calorie diet and occupational therapists worked with the play team to provide stimulation for him. The speech therapists also helped Joshua with his swallowing as he had been tube fed since he was born."

Twelve weeks after his first operation, he was ready for his second, this time weighing 5lbs 5oz.

The surgery, again performed by Mr Ghez, was a success. Joshua was allowed to go home 22 weeks after he was born, having spent 19 weeks on PICU.

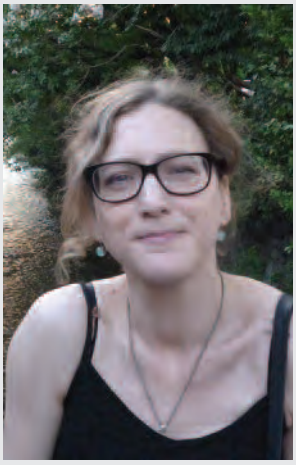
Suzy explained: "I was very nervous about bringing him home as we were so used to having everyone on hand in hospital. But we had fantastic support – the referrals to our local nurses and community workers were all sorted out for when we got home."

Joshua is reaching all his normal developmental milestones and is a happy, boisterous toddler. He won the Pride of Essex, 'Child of Courage' award in November 2014.

Suzy said: "I'm indebted to everyone at Royal Brompton. I think the rehabilitation care programme is fantastic – it helped Joshua get to a point where he could have the surgery and that was invaluable. Having the team plugged into his care from day one really made a difference. We will be forever grateful."

PATIENT EXPERIENCE

Sharon Brennan had a double lung transplant at Harefield Hospital



@SharonBrennan

This is an edited version of a feature that appeared in the Independent newspaper in March 2015.

As I mounted three flights of stairs, the highest I'd been able to climb in more than five years, the feeling of pride overwhelmed the exhaustion. My physiotherapist was by my side, providing encouragement and carrying the two surgical drains that had been inserted 10 days before, during my double lung transplant at Harefield Hospital. As I reached the top, there, pencilled on the wall in front of me, was a small "Hello". One of the thousands of transplantees that had come before me had left their mark. To me, it meant "Welcome to the gang".

Born in 1981 with cystic fibrosis, I was lucky enough to receive a double lung transplant at Harefield Hospital in Middlesex in August 2013. Celebrating its centenary this year, Harefield is a place that has long conjured everyday miracles behind its utilitarian exterior.

Harefield's drab brick façade, flat roofs and white-framed windows do not do justice to the work that goes on there. Inside this building of large, glass-sided corridors and stunning artworks by the likes of Grayson Perry, walk nurses, receptionists, porters, cleaners, doctors and canteen staff. They go about their jobs, seemingly oblivious to how extraordinary their roles are in helping to transform the lives of people often given only a year or two to live.

Clinical nurse specialist Mandy McCurry, 60, has worked at the hospital since 1983. She helped to prepare the very first heart and lung transplant patient for surgery. Although she recognises the real impact that the hospital can make on people's lives – "we see [patients] walking out the door without any oxygen when before they came in in a wheelchair" – she says that on a "day-to-day basis" she doesn't think that what she does is "miraculous".

Indeed, a few hours before my own transplant, a doctor noticed my shaking hands and said, "What are you scared of?" Rather

Harefield's annual family day and fun run

incredulous, I answered, "The transplant!" "Don't worry", he said, "we do them all the time."

This matter-of-fact attitude is perhaps fostered by the fact that Harefield is a relatively small hospital in a close village community surrounded by English countryside. It's not unusual to see badgers, owls and even deer in the hospital grounds. Fabio De Robertis, 43, the surgeon who carried out my own transplant, describes the hospital as "not very shiny", but says that when you enter, "you find an amazing team. Everybody says 'Let's get on with it, let's save lives'."

De Robertis says of his job that "transplantation is the closest to motherhood I can get", and it is a sentiment I can relate to. Meeting my surgeon for the first time, 18 months after my transplant, is quite incredible. I shake his hand, fully aware that it had once held my new lungs. Neither of us recognises the other – me because I was too drugged up in intensive care to remember much, he because my health has improved so drastically that I am unrecognisable.

I feel an almost familial connection with him and it doesn't surprise me when he tells me that his four- and five-year-old children are always asking to meet his patients. There is a closeness at Harefield that is born from the dedication shown to its patients, what De Robertis calls a "vocational calling".

If the hospital is a family, then the patriarch is Professor Sir Magdi Yacoub. It was his groundbreaking work that laid the foundations for Harefield to now offer one of the largest transplant programmes of its kind anywhere in the world, performing almost 3,000 transplants since Sir Magdi carried out the first one in 1980.

Things have come a long way since Sir Magdi first pioneered cardiothoracic transplant. McCurry explains that the first transplant patients were kept in complete isolation for the first seven days. "It was scrubs to go in and out and you [nurses] were in there for the whole shift [without leaving]." These early patients could only eat fruit and vegetables if they were from a tin and had to have sterilised milk because of the risk of infection. Now, transplant patients are encouraged to see the operation as one that allows them to enjoy their life again without many restrictions. She points out, though, that Harefield "is not only about transplant and that mustn't be forgotten".

McCurry is still in touch with patients that she nursed in 1983, and for her, seeing a patient through their life journey is partly what makes Harefield unique. "We never say goodbye to them," she says. As I drive away from Harefield the day I met De Robertis, I realised that this hospital is more than just the venue for life-changing surgery. For me, it is a place in which I can feel at home.

Mr Fabio De Robertis, consultant cardiac and transplant surgeon

we respect

We believe that patients should be treated with respect, dignity and courtesy and that they should be well informed and involved in decisions about their care. We always have time to listen.

AICU patient experience day

Any hospital admission can be a stressful experience, both for patients and their families and carers. For critically ill patients who are brought into the Trust as emergency cases, this is particularly so. Many of these patients are at their most vulnerable when they arrive, some are unconscious. With a desire to gain a deeper understanding of how patients experience Royal Brompton's adult intensive care unit (AICU), Darzi Fellows Dr Julian Lentaigne and Dr Claire Boynton, with the support of consultants Dr Anthony Bastin and Dr Simon Finney, invited former patients back to the hospital to hear first hand how they felt about their stay in AICU.

"Coming to AICU can be a very stressful experience for patients and relatives. We've been working at improving that experience for some time. We felt the best way to explore some of the issues was to invite former patients and relatives back to Royal Brompton to ask them: 'How can we help you, and how can you help us?' explained Dr Lentaigne. "The patient experience open day was a first for us, and gave us quality time to really listen to what our patients and their families had to say."

More than 60 people accepted the invitation and travelled to London from as far afield as Northern Ireland and Scotland. Twelve members of the AICU multidisciplinary team, including doctors, nurses, therapists, a consultant clinical psychologist and administrative staff were on hand to facilitate the day-long event.

The programme was carefully structured to allow significant time for discussion and in feedback those attending said that being able to share experiences was the most valuable aspect of the day.

One patient spoke in depth about her individual experience. Although she felt her care was excellent, she was troubled by disturbing hallucinations for much of her time on the unit and found the experience deeply unsettling, even after discharge.

Intensive care hallucinations and delusions are not at all uncommon and intrusive memories (emotionally arousing memories linked to them) can last for several months after treatment has ended. The content of intrusive memories can sometimes merge the factual experience from ICU, such as pain, with hallucinatory, delusional memories such as persecution or torture. The patient was coming to terms with her experience but found it extremely helpful to share her story and hear other similar ones.

Dr Anne-Marie Doyle, consultant clinical psychologist, discussed the psychological medicine service, which is available to all Trust patients, and went into some depth about the effects that traumatic experiences can cause in times of severe physical distress.

To represent the views of families and carers, Catherine Quirke from Hampshire shared her experience. Catherine's partner, Simon, was a patient on AICU for 11 days following an operation for an aortic valve replacement as a result of aortic stenosis (narrowing of the aortic valve). During the operation, Simon had a chronic asthma attack and, a day after the surgery, his kidneys failed.

Catherine said: "The nursing staff were amazing on AICU; the concentrated devotion to patients is relentless. I was included as part of his nursing team and everything they needed to do for him was explained to me.

"But to see my partner who, only a short time previously had been enjoying day-to-day activities, in such an incapacitated state, was beyond frightening. Seeing him attached to numerous tubes made me feel so helpless. His time on AICU was the most harrowing of my life."

For several patients, being able to chat to others who had been supported on AICU was very cathartic. One former patient said the relief he felt at being able to talk about what he had gone through was like "a great weight lifting from my shoulders".

"I feel much better having shared my experience with

(left to right) Dr Anthony Bastin, Dr Simon Finney and Dr Julian Lentaigne talk to patient Mr Richard Weeks and his wife, Rosalyn

other patients" was a frequently expressed feeling. And relatives also benefitted: "It was a relief to know I wasn't alone in some of my feelings. It was great to be able to revisit the site of such 'trauma' in these now, happier times," said one.

Gaining closure

For some of those taking part it was their first "conscious" experience of the AICU. To help them "have closure," AICU senior nurse, Ian Naldrett, led a guided tour of the unit. And, as many patients had needed ECMO (extracorporeal membrane oxygenation) life support during their stay, Dr Bastin gave a presentation about this vital treatment and how it works. ECMO uses a machine similar to the equipment used during a heart-lung bypass operation to oxygenate the blood outside the body when the lungs are unable to do so. He explained that patients are generally transported by ambulance, from as far afield as Cornwall and the north of England, but for patients from Northern Ireland and Scotland, the team will travel by air ambulance to bring them back to Royal Brompton.

"The total process of retrieval from leaving Royal Brompton Hospital, collecting and assessing patient, putting them on ECMO (if required), stabilising for transfer, and the journey back and stabilising on arrival can take 12 to 15 hours or longer, depending on the distances involved and how complicated the medical case is," Dr Bastin said. Royal Brompton Hospital is one of only five centres in the country commissioned to carry out ECMO.

Commenting on the AICU open day, Dr Finney said: "The critical care team is very grateful to all those who attended and for being so instructive as to how we can improve our service. It was beneficial for the team to see the service through their eyes and listen to their opinions. We are reviewing the points raised as ongoing actions. For example, we are addressing the need to provide a more pleasant waiting area with greater privacy for relatives.

"We have also worked on improving information available on the Trust website so that patients and families know exactly what to expect during their time with us."

Jan McGuinness, director of patient experience and transformation at the Trust, said: "The AICU event provided a very concrete example of how inviting patients and families to co-design their care and care environment with teams from the Trust can result in a strong partnership, with each side bringing particular strengths to the table."

PATIENT EXPERIENCE

"For the first time I felt I was being listened to".

David Southall, a Royal Brompton patient

In 1991, David Southall from Chelmsford in Essex, was involved in a motorbike accident that left him with punctured lungs and several broken ribs. He spent three months recovering in hospital and experienced breathing problems due to scarring of his lung tissue. Once the scars had healed his breathing problems decreased, but during the following years he started to struggle again. His doctor diagnosed asthma and prescribed inhalers, but his condition did not improve.

"I told my GP that I didn't think I had asthma. My lungs always sounded healthy when doctors listened to them with a stethoscope and my peak flow readings didn't improve after taking inhalers, which suggested I didn't have asthma.

"Then I was told that my problems were still down to the impact of the accident on my lungs, and was told to try breathing exercises. But nothing helped and as the years went on my breathing deteriorated even more. I sounded like Darth Vader with my raspy breathing. There was no respite – it was always bad.

"Finally I'd had enough. I saw my doctor again, he said there was nothing more he could do for me and referred me to Royal Brompton."

In January, David attended the unexplained breathlessness service at Royal Brompton Hospital, under the care of consultant physician, Dr James Hull.

"For the first time I felt I was being listened to. Dr Hull asked about my symptoms and then I had many tests during a six-day stay, including sleep and fitness tests. When the doctors tried to put a tube with a camera on the end into my lungs, the tube wouldn't go further than my throat. So I had an endoscopy, where the tube went down my nose instead.

"The team spotted the problem on the monitor straight away – an area at the top of my windpipe, close to my voice box, was very narrow and meant I was breathing through a very small area. I was told that this uncommon condition, glottis stenosis, was to blame for my breathing difficulties and wheezing.

"I had spent more than 15 years struggling with breathing. All it took was for one specialist consultant to do an endoscopy and identify the problem. I can't tell you the jubilation I felt at that point, knowing that it would be sorted out.

"Dr Hull thought the narrowing was due to being intubated when I was in intensive care after my accident. He said the breathing tube may have ruptured the top of my windpipe when it was put in or taken out, and over time it got worse."

Consultant ENT surgeon Mr Guri Sandhu, part of a multi-disciplinary team at Royal Brompton that investigates patients with complex narrowed airways, carried out a 20-minute procedure at Charing Cross Hospital to laser the blockage away. He then used a special balloon to inflate David's narrowed airway.

After surgery, David completed a 62-mile non-stop charity bike ride

"I was quite emotional when I took my first breath after waking up because I felt normal for the first time since before my accident. I had no whistle or wheeze. The first night after the procedure, my other half had to check I was still alive because she couldn't hear me snoring or wheezing.

"My breathing has been phenomenal since. Two weeks after leaving hospital I completed a half marathon, and earlier this summer I did a 62-mile bike ride for charity without stopping. I've recently signed up to do the Three Peaks Challenge. I could never have dreamed of doing those things before my treatment – it's given me my life back.

"I have check-ups at Royal Brompton every six months and my lung function had increased by 70 per cent at my last appointment.

"The care here has been second to none. Dr Hull has explained every stage and process, as have the nurses, the ward sister and other doctors. Everyone has been so friendly and welcoming.

"I'm so thankful for everything that the team has done for me. If I'd paid money for the experience I would have come away thinking it was worth every penny."

Doing more for patients before surgery

Allison Pottle (second from right) and members of the Woodlands team

> The pre-admission unit helps the Trust avoid delaying or even cancelling procedures, because potential complications are picked up.

The Woodlands pre-admission unit was set up by Alison Pottle, nurse consultant in cardiology, in June 2013. During 2014/15, the service peaked with 2,551 patients being referred from eight clinics ranging from angioplasty and cardiac surgery to ablation and chest drain. This was the first service of its kind for the Trust and is proving its value both to patients and the organisation as a whole.

"I felt strongly that we needed to do more to support our patients before they came to the hospital and to ensure they were fit for the operations and procedures they were going to have," said Alison. "Pre-admission assessment prepares patients physically, mentally and emotionally for their admission to hospital. Hospital colleagues say they know which patients have attended the assessment centre from the ones that haven't. Patients who have been assessed are better informed and more relaxed on the day of admission."

The pre-admission unit helps the Trust avoid delaying or even cancelling procedures, because potential complications are picked up. For example, patients presenting with anaemia can be treated in advance of their inpatient stay.

"While patients are having their assessment, they can ask for any information they need. We find, as nurses, they ask us the questions they may not like to 'bother' their doctor with," explains Alison. "And often patients can't retain all the details given to them when they are diagnosed. We can take the time to talk about the reasons they are coming into hospital, listen and allay any anxieties they may have. Importantly, we can talk to them about what they can expect to happen when they are admitted."

Patients are seen in the unit seven to 14 days before their admission and are examined to ensure they are fit for their operation. The assessment includes: height, weight and blood pressure checks, an MRSA bacteria test and blood tests. There is also a review of medication with the cardiac pharmacist and all paperwork required prior to admission is completed. Patients from other parts of the UK have a telephone assessment with one of the team members.

PATIENT EXPERIENCE

Susan Jefford, aged 61, has coronary artery disease and has been a Harefield patient for 17 years

In 1999, Susan underwent a triple bypass operation and, in the years since, has had four stents implanted. Susan returns to Harefield Hospital for a repeat angiogram whenever a potential new problem is found, and each time has the pre-admission assessment for her short stay.

"I think the service at Woodlands is marvellous. Everything you need is done, from a blood pressure check to medication review and all under the same roof.

"All the staff are so friendly and efficient. If you do have to wait, it's a pleasant place to be as you can make a cup of tea, and if you want to, watch television to pass the time.

"Before the Woodlands service was available, all the tests and checks you needed before the procedure were completed on the morning of admission. Sometimes that could be rather a rush and I worried that the theatre staff might be waiting for me.

"Also, there was always the uncertainty that one of the tests would show up something that meant you couldn't have the procedure as scheduled.

"I don't feel like that anymore because all the pre-op checks and tests have been done well in advance and I know I'm "operation fit". That really does take away a lot of worry."

Susan waits to be called for her angiogram procedure

Emily Dobbs, healthcare assistant, measuring a patient in the pre-admission unit

2014/15 in numbers

Admissions at the Woodlands pre-admission unit peaked with 2,551 patients being referred from eight clinics ranging from angioplasty and cardiac surgery to ablation and chest drain.

PATIENT EXPERIENCE

John Williams, from Derbyshire, took part in a clinical trial for idiopathic pulmonary fibrosis (IPF) at Royal Brompton Hospital

"In August 2013, at the age of 64, I was in excellent physical health enjoying hill walking, skiing and playing league squash two or three times a week. Without any warning I developed a bad cough during squash games, which stopped when I finished playing.

"Over the following weeks the cough increased and became continuous, especially during intense physical activity, when I also noticed I was becoming breathless more quickly. After spending a fortune on every brand of cough medicine without any benefit, I visited my excellent GP, who quickly sent me off for an X-ray. I was informed that the X-ray needed further investigation."

John had subsequent tests and a CT scan, and was diagnosed with idiopathic pulmonary fibrosis (IPF) around four months later.

"I had never heard of the condition before, so I researched on the internet and found a local support group in Birmingham, which I visited to talk to other people at different stages of IPF. It rapidly brought home to me that there is currently no cure for this condition. I found out things about IPF that I didn't really want to know, but had to accept.

"Rather than collapsing in a heap feeling sorry for myself and waiting for the inevitable end, I decided to make the most of the time and quality of life I have left and do all I can to help find a cure for the condition."

A friend of John's who works in healthcare suggested that he wrote to Dr Toby Maher, consultant respiratory physician, to ask if he could be considered as a potential candidate for a research trial. John's friend was aware that Dr Maher's is a leading name in the field of IPF research.

"I was pleased and surprised at the fast and enthusiastic response from Dr Maher's secretary following my enquiry. Everyone who works at the centre has been so helpful, friendly, cheerful and professional. From the minute I entered the research centre I was treated as a VIP and I felt the team was genuinely interested in me and my condition.

"They immediately made my wife, Liz, and I feel part of the team. Once I had been accepted onto phase two of the hospital's monoclonal antibody trial in the summer of 2014, I felt that my contribution was valued. At each monthly visit I always received a full explanation of what was happening and I felt reassured knowing that I was being so well monitored and cared for at a centre of excellence.

"I was no longer left in the wilderness, as I had been before coming to Royal Brompton. It also felt good to know that I was playing my part in finding a cure for other people in later years – and who knows, they may be my children or grandchildren."

In early 2015 John was asked if he had considered being assessed for a lung transplant: "I thought I was too old for a transplant. But I was told the cut off was 65, the age I then was."

John was later assessed for a transplant and put onto the waiting list at Wythenshawe Hospital, in south Manchester, his nearest transplant centre. He was fortunate to have a lung transplant in the summer of 2015.

"I'm still recovering from the operation but I can now walk further than before and I feel a lot better overall. Without having the transplant I don't think I would have survived past Christmas. I am deeply indebted to the team at Royal Brompton – if it wasn't for them I would never even have known I could be considered for a transplant."

Happy times for John with his wife, Liz


Royal Brompton & Harefield NHS
Clinical Nurse
Specialist in FH Screening

we are inclusive

We believe in making sure our specialist services can be used by everyone who needs them, and we will act on any comments and suggestions that can help us improve the care we offer.

Ongoing outreach and collaboration

The Trust has a history of working closely with other hospitals and community services to ensure patients have access to our wide-ranging services and treatments for heart and lung disease. Our experts promote the principle of "shared care" through an expanding system of consultant-delivered outreach clinics at over 30 hospitals across the South East, covering Essex, Sussex, Surrey, Hertfordshire and Middlesex. This system allows patients to benefit from specialist expertise in their local environment, with inpatient care at our hospitals available as needed.

Examples include:

- Outreach clinics in the Hillingdon borough for cascade testing of familial hypercholesterolemia (FH) funded by the British Heart Foundation and led by clinical nurse specialists from Harefield Hospital. FH is an inherited condition that results in very high cholesterol levels that can lead to heart disease and, if undiagnosed, can be fatal. By extending the service into the community, the team hopes to increase the number of diagnoses and provide early intervention.

  Patients found to have FH are also offered treatment at the lipoprotein apheresis service at Harefield Hospital – one of 10 designated centres in the UK.

- Development of the national paediatric primary ciliary dyskinesia (PCD) satellite clinic service, with a multidisciplinary team including a Trust consultant, nurse and physiotherapist, at Luton and Dunstable and Milton Keynes hospitals. They also provide one-off home visits to families. PCD is a rare, inherited condition, which may affect the lungs, sinuses and ears. If left untreated it can lead to a form of lung damage, known as bronchiectasis. The mainstay of treatment is chest physiotherapy and targeted antibiotics that enable patients to lead normal lives.

  Royal Brompton Hospital is one of only four clinical centres commissioned by the NHS to look after children with PCD and, with more than 300 paediatric and adult patients, is the largest and busiest PCD specialist service in Europe.

- Collaboration between Harefield and Hillingdon hospitals and Hillingdon clinical commissioning groups and community services to provide an integrated cardiology service.

- Provision of an e-digital support service for GPs to access cardiology advice to help reduce unnecessary referrals.

- Expansion of access to electrocardiography (ECG) and echocardiogram services at Harefield and Hillingdon Hospitals. This has resulted in a rise in GP referrals.

- Pulmonary rehabilitation classes are now available in Hillingdon and Harrow, in addition to programmes run at both Trust hospitals. The service had nearly 1,000 new referrals between March 2014 and April 2015. More than 90 per cent of patients reported feeling better and less breathless following the eight-week programme of education and exercise classes.

Royal Brompton's proximity to the specialist cancer hospital, The Royal Marsden, enables the two trusts to jointly run one of the largest lung cancer programmes in the UK. Close collaboration with neighbouring Chelsea and Westminster Hospital allows both trusts to provide significantly enhanced services to patients of all ages with heart or lung disease. Harefield teams continue to enjoy ongoing support across a range of non-cardiothoracic specialist disciplines from The Hillingdon Hospitals NHS Foundation Trust.

Rehabilitation and therapies outreach services

Paediatric rehabilitation and therapies outreach services available in 2014/15 include:

- Home visits by Trust physiotherapists for cystic fibrosis (CF) patients. The physiotherapy team also liaises with schools, local hospitals and community health teams to ensure everyone involved in a patient's care is updated with any progress and changes in clinical management.
- Dietetic home visits are offered to paediatric CF patients whose nutritional status is an ongoing concern. This includes cases of faltering growth, behavioural eating problems and patients who use gastrostomy tubes.
- A new paediatric speech therapy satellite service at Chelmsford Hospital started in early 2015. The service is linked to the Trust's pioneering cardiac rehabilitation care programme. (For more details about the programme see pages 14 to 15).
- Paediatric CF outreach / shared care clinics are held at 11 centres in the south of England and at St Helier in the Channel Islands. Patients and their families attend their local hospital and are reviewed by the Trust's multidisciplinary CF team, which includes physiotherapists and dietitians. This service also facilitates the training of local hospital teams in the management of CF.

> "This was my fifth visit… the staff were so kind and helpful… treated you with dignity and respect… medical staff are fantastic in their care for you… cannot recommend this hospital highly enough."

Clinical homecare medical supplies service

During 2014/15, more than 2,000 patients with long-term conditions received their specialist medicines via the homecare service. Trust pharmacists who specialise in cardiology, paediatrics, respiratory and transplantation, dispense prescriptions that are made up by registered, off-site homecare pharmacy providers.

The medicines are then delivered to patients throughout the UK at a convenient pre-arranged time and venue e.g. their home or workplace. Deliveries are made monthly or quarterly depending on the medicine or diagnosis. When necessary, deliveries can be made to patients when they are on holiday within the UK.

Medicines are usually supplied in tablet and capsule form, but some cardiology and respiratory patients require intravenous injections. The homecare team can provide this service at home so patients can avoid a hospital visit.

STAFF PROFILE

CARE IN THE COMMUNITY

Bibi Persaud-Rai, clinical nurse specialist (CNS) in homecare and discharge

Bibi Persaud-Rai covers a radius of 200 miles a week to see patients in their own homes. Her work supports the recovery of patients who have been cared for at Harefield Hospital.

The service provides post-operative care to patients who have had cardiac surgery, with a minimum of two home visits, and follow-up telephone monitoring if a patient has further care needs. Bibi visits patients from the local community, and travels as far north as Luton, as far south as Bedfordshire, and eastwards to Enfield in Essex.

During a home visit, Bibi carries out a range of checks to ensure patients are making progress as expected. She checks blood pressure and ensures the wound site is healing well, comparing against a photograph taken on the day of a patient's discharge. Bibi also takes blood for various tests, gives advice on medication and wound care, and enables steady patient progress towards post-operative good health by giving lifestyle advice, such as how to start exercising again and how to stop smoking (if needed). She also liaises with GPs to ensure patients receive the correct medication and follow-up appointment information.

"Patients find the home visiting service very reassuring. As much as a patient wants to go home after a major operation, it can be quite daunting to leave the safety and support of the hospital and manage your care at home," said Bibi.

"My main aim is to prevent patients returning to hospital due to post-operative complications. By spending time and paying attention to their condition, I can help make sure that doesn't happen."

Diverse membership guides service provision

Since becoming a foundation trust on 1 June 2009, patients, families, carers, staff and members of the public have been invited to join the Trust as members to support and help influence healthcare services within our hospitals and the communities we serve. Membership now exceeds 11,000. Members provide valuable feedback, local knowledge and support.

In October 2014, the Trust contracted Membership Engagement Services (MES) to undertake a recruitment drive for new public members.

The membership profile was analysed to identify any under-represented groups. Recruitment efforts were then concentrated in north west London and on certain ethnic minority groups. The recruitment campaign attracted 500 new members.

Our programme of events expanded during 2014/15 with members enjoying popular and well-attended activities including:

- Peter Collins, professor of clinical cardiology, gave a presentation entitled: "Easy ways to help women (and men!) live longer" at Royal Brompton Hospital.
- Members were invited to tour the cardiac catheterisation laboratory at Royal Brompton Hospital in autumn 2014. Feedback showed a high demand for such events and more are planned for 2015/16.
- Valerie Lapworth, diabetic specialist nurse (CNS), gave a presentation about the disease and led an interactive session with members at Harefield Hospital.
- Also at Harefield Hospital, consultant cardiologist, Dr Mark Mason, shared his knowledge of pacemakers with members and discussed new developments in monitoring devices.

The Friends and Family Test

> By monitoring the many feedback channels that exist, and providing our own forums for discussion, we are in a strong position to understand and act on the comments and suggestions of patients, their families and carers.

The Friends and Family Test (FFT) was introduced by the Government in May 2012. It provides a simple headline metric which, when combined with follow-up questions, can help to ensure transparency, celebrate success and make improvements where necessary. All hospital trusts are required to ask inpatients: "How likely are you to recommend our ward / clinic to friends and family if they needed similar care or treatment?"

The Trust started using the Friends and Family Test in December 2012 and "recommended scores" have been consistently high, greater than 90 per cent.

Comments from patients when asked why they are "Extremely Likely" to recommend our wards / hospitals include:

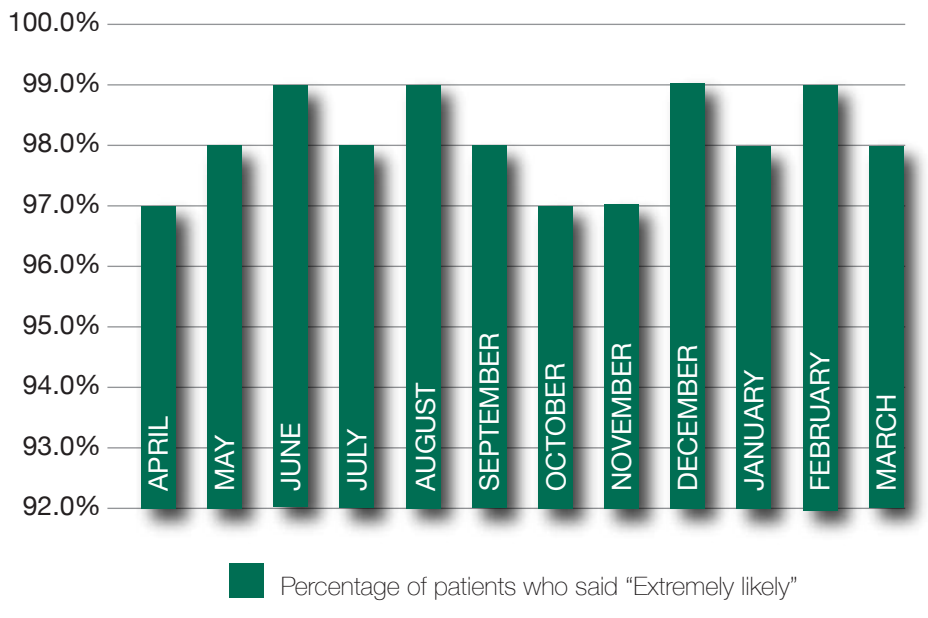
"I was treated very professionally and the nurses were helpful and friendly. If I had a question to ask it was explained clearly."

"Very good staff, treated like adults and given chance to be involved in day-to-day management of meds etc."

"The staff are friendly and keep you informed about what is happening and answer your questions; if they can't, they get someone who can."

"Everyone on the ward has been exceptionally kind, friendly and reassuring. You feel it is an incredibly safe environment and this makes a frightening situation so much easier."

HOW LIKELY ARE YOU TO RECOMMEND ROYAL BROMPTON AND HAREFIELD NHS FOUNDATION TRUST TO FRIENDS AND FAMILY? 2014/2015



Acting on comments and suggestions

The Friends and Family Test (FFT) also enables trusts to make changes and improvements where necessary. Across the Trust "You Said – We Did" posters are displayed to demonstrate to patients that we listen and act on their feedback.

In our children's ward, as a result of comments and feedback from parents, the following improvements were made:

- The waiting room was refurbished and seating extended.
- New name badges were provided.
- A campaign was introduced to remind all staff to introduce themselves to parents when treating a child.
- Improved information packs were provided.
- A theatre group was asked to provide teaching on cross-cultural expression of compassion.

RESPONDING TO PATIENT COMMENTS

"I was nervous about leaving the intensive therapy unit waiting room at Harefield Hospital to get a cup of tea or something to eat, in case I wasn't there to see my husband immediately after his procedure. We had to ensure that one of the family was always near the intercom in case we were called back in." (relative of patient)

Trust action:
A new restaurant-style pager system was provided for ITU, which enables staff to notify visiting relatives when a patient's procedure has finished. This means families are not limited to the waiting room area only; the pager range includes any part of the hospital including outside and in the canteen.

"Some of the pictures in the rooms and corridors are miserable, and the day room is not very comfortable." (respiratory patient)

Trust action:
The day room was refurbished and the Trust's arts team undertook a project to incorporate patients' designs in a themed series of artworks.

"The room has too many beds, it's like a dormitory." (respiratory patient)

Trust action:
Smaller bays have been introduced and a new bathroom built within the main ward for patients with high-care needs. Beds for carers / family members have also been provided.

PATIENT EXPERIENCE

Paul Scoble, aged 49, had open heart surgery at Royal Brompton in December 2014

In August 2014 Paul Scoble had a stroke and was taken by ambulance to a hospital in Essex. He received clot-busting treatment but suffered another stroke, his oxygen saturation levels dropped dramatically and he had difficulty breathing. He was taken to the ICU and intubated; two weeks later he had a tracheostomy (the insertion of a tube into the windpipe) to help him breathe. Paul developed infections, was later found to have fluid on his lungs, and his heart rate started fluctuating dramatically.

"It was very scary and he had panic attacks, which made his heart rate drop very low" explains his daughter, Dannii. "Dad was in a really bad way."

In October a blood test found that Paul had elevated levels of certain proteins, which suggested that he had endocarditis, a potentially fatal infection of the inner lining of the heart. This was confirmed by an ultrasound scan and transoesophageal echocardiography (TOE), which also identified severe damage to the aortic and mitral valves in his heart.

"The doctors told me and my brother, Leon, that there was nothing more they could do for Dad and to expect the worst. They said the only option was open heart surgery, which he wouldn't survive because of his size and the fact he was on a ventilator.

"We started to research other solutions and contacted a number of chief executives at specialist heart hospitals, including Royal Brompton, to see if anyone else could help – we wanted to give our dad a chance at life and knew he didn't have much time left.

"Bob Bell, chief executive of Royal Brompton and Harefield, was our knight in shining armour, our guardian angel. He wanted to help and soon after we contacted him, Dr Cliff Morgan, clinical director of critical care and anaesthesia, and Dr Susanna Price, consultant cardiologist and intensivist, arranged to come to the hospital in Essex to see Dad.

"They agreed that open heart surgery was his only option and took his hospital data back to Royal Brompton to discuss options in a multidisciplinary meeting. A couple of weeks later, Dr Morgan and Professor John Pepper, consultant cardiac surgeon, came back to give us the good news – they could do open heart surgery when a bed was available at Royal Brompton. We were told that there was a higher chance that Dad would survive the surgery than he wouldn't, which was better than we expected. Because Royal Brompton is a specialist heart hospital, we understood that the teams there had the necessary skills and expertise to treat complex patients like our dad."

Paul with his daughter, Dannii, at his bedside at Royal Brompton following open heart surgery

Paul was transferred by ambulance to Royal Brompton in early December and taken straight to the adult ICU.

"We met Mr Ulrich Rosendahl, the consultant cardiac surgeon who would be performing Dad's operation. He was so happy and enthusiastic about doing the surgery and didn't bat an eyelid despite the complexity of his case. His confidence made us feel so much better about what was going to happen, despite knowing about the risks.

"A couple of days later Dad had the surgery, and once he was back on the AICU we were called to say that he was settled and stable. That was all that mattered to us. We popped in so he could hear our voices and held his hand, even though he was heavily sedated.

"He started coming to within a week or two, opening his eyes and moving his mouth so we could lip read him. Bob Bell visited Dad a couple of times, even on Christmas Day – and we were all given a Christmas lunch. Even though we spent Christmas Day in hospital, it was lovely.

Gradually the doses of

Dad's drugs were reduced, and his tracheostomy was removed in January. That month he also had ablation to correct his atrial flutter.

"It was as if he was a new man after the heart surgery and ablation – he was himself again. His speech also returned quickly after the tracheostomy was taken out.

"He was moved to a specialist respiratory ward and the staff there were an absolute dream. Even though they were incredibly busy they were brilliant, and so caring, loving and friendly. They were always happy to see us. They treated Dad with respect and joked with him, which made him feel comfortable and settled there. That's what you need from a hospital, but you don't get that everywhere.

"Dad was slowly improving all the time. The physiotherapists got him back on his feet, so he could walk with a hoist.

"He did brilliantly due to the help and encouragement he had from all staff."

In April, Paul was transferred to a rehabilitation unit, where his physiotherapy and care continue.

"There is still some way to go, but we are so grateful to the teams at Royal Brompton for everything they did for him – they gave him a chance at life, and gave us our dad back."

Mr Ulrich Rosendahl, consultant cardiac surgeon

we believe in our staff

We believe our staff should feel valued and proud of their work and know that we will attract and keep the best people by understanding and supporting them.

Attracting and keeping high calibre staff at all levels within the organisation is vital if the Trust is to provide the best possible care to patients.

Continuing professional development and learning opportunities are key to retaining a skilled and committed workforce. Through partnerships with Imperial College London's School of Medicine, South Bank University and other academic institutions, world-class clinical and postgraduate medical education is delivered on both sites.

Staff of all grades are encouraged to undertake internal courses and attend internal, national and international conferences, seminars and specialist medical courses.

Both clinical and non-clinical staff can apply for financial support in the form of study funding for short or long courses, and bursaries to help with conference fees, travel costs and accommodation (for example, a number of nurses have received funding for the MSc in cardiothoracic nursing, jointly delivered by the Trust and Imperial College).

A comprehensive programme of leadership, management and personal development courses is also available to staff, with many providing the opportunity to take accredited qualifications. The Trust is also recognised as an accredited provider of coaching and coach development.

Twice each year, individuals and teams across the Trust are honoured for their hard work, service and exceptional contributions at staff champion awards, made all the more popular because they are nominated by their colleagues.

> "The Trust is such a friendly place to work and has a strong nursing research profile."

Lessons learned from Formula One

In June and October 2014, five multidisciplinary groups from both hospitals, including catheter lab physiologists, nurses and radiographers, participated in creative team-building events. The sessions, funded by the Health Foundation, were designed to build on a cardiology checklist project; a three-part procedure checklist recently developed and introduced in the cardiac catheter labs and theatres. The checklist aims to improve efficiency, patient safety, communication between staff and staff wellbeing.

Delegates discussed leadership, communication and teamwork and worked together to complete a series of challenges and activities designed around those themes. At the end of the day, as two teams, they translated learnings from the day into action, in a practical Formula One pit stop exercise. Competing against each other and against the clock, they were required to focus, collaborate and communicate while changing the tyres on an F1 racing car as quickly and efficiently as possible.

Jeremy Bishop, quality and safety lead at Harefield Hospital and organiser of the training sessions, explains: "The pit stop training highlighted that communication and teamwork are essential. The cardiology checklist is designed to improve teamwork and we wanted to maximise its benefit by providing training where communication and teamwork are essential – after all, the difference between winning and losing in Formula One is often only seconds. These skills are particularly important in an atmosphere like an operating theatre or catheter lab where staff need to feel comfortable to express opinions and challenge ideas."

Greater recognition for nurse educators

In October 2014, Liz Allibone, head of clinical education and training (nursing development), jointly founded Britain's first national network for clinical nurse educators with Dr Bill Whitehead, head of nursing at the University of Derby. The need to champion the nurse educator role became clear while Liz was researching an MA in clinical education.

"A clinical nurse educator is a senior clinical role that has the potential to be a powerful entity in an organisation. I felt the role should be formally recognised and supported," said Liz. "By forming the network we can help to ensure a standardised framework is put into place for the recruitment, support, and ongoing development of vital clinical educators.

"Membership is growing by the day. It is clearly fulfilling a need and promoting the sharing of best practice nationally."

The network currently has over 230 clinical nurse educator members from all over the UK and has gained recognition from various nursing and healthcare organisations.

Support and training for healthcare support workers

Liz is also the Trust lead for the roll-out of the National Care Certificate, which is mandatory training for healthcare support workers, who are "new to role and new to care".

The certificate equips support staff with the skills, knowledge and behaviours needed to provide high-quality and compassionate care, in line with The Cavendish Report, which recommended that all healthcare assistants (and social care support workers) should have the same basic care training, based on current best practice.

The introduction of this qualification enhances established care training and offers existing staff opportunities to refresh or improve their knowledge.

Liz Allibone speaking at CNEnet London

> "We are proud to work in a highly respected Trust with high standards of patient care"

Development and education programme

To support the ongoing career development of nursing staff, a dedicated nursing development and education programme is well-established at the Trust, along with in-house and external education and training opportunities. Kathryn Farrow, director of nursing development, explains: "With over 1,200 nurses in the Trust, it is very important to have highly trained and stimulated staff who are encouraged and inspired to develop their careers."

Nursing staff are offered opportunities to:

- Undertake Open University distance learning, such as the post graduate MSc in cardiorespiratory nursing
- Lead and manage a range of national projects
- Enhance their leadership and service development skills

Compassionate Care leadership development

In February 2015, a group of nurses completed the year-long Compassionate Care leadership development programme.

The course was a collaboration between the nursing department and the Royal College of Nursing (RCN). Launched in January 2014, the programme is designed to support staff in leading service improvement initiatives based on the six core elements of the nursing framework: compassion, competence, communication, courage, care and commitment.

Fifteen band 6 and 7 nurses presented the results of their work to colleagues at Harefield Hospital, describing the improvements that had been made as a result of their work. These included better communication with patients and relatives; more effective discharge planning and improved collaborative working with other clinical areas.

Helen Doyle, matron in transplantation, who completed the programme, said: "The course provided the structure and tools to implement change within the clinical area. It encouraged us not only to celebrate what we do well now, but to look at what we could do in the future to make the patient experience even better."

STAFF PROFILE

Penny Agent joined the Trust as a junior physiotherapist in 1996

In 2013, Penny became director of rehabilitation and therapies.

Penny identifies the following as key contributing factors to her career progression:

- excellent training and career development opportunities
- networking opportunities
- respect for her skills
- ability to work proactively to lead organisational and service changes.

"Senior staff at the Trust encouraged my creativity and innovation. There is a freedom to challenge the way things are done and I find this attitude empowering. I've always received support to try out new ways of doing things," Penny says. "I have also learnt first-class clinical, research, education, leadership and managerial skills by working alongside inspirational colleagues throughout the years."

In her first year at the Trust Penny was involved in significant research studies, which fired her interest to concentrate her clinical career in cystic fibrosis (CF).

"I was encouraged to practise clinically at the highest level in physiotherapy." Although she found her clinical work absorbing, it was a keenness to look at ways to develop and improve the service that led to her interest in leadership and management.

"In 2000, I did a 14-month leadership course alongside my day-to-day physiotherapy role. Two years later, with support from the Trust, I completed a postgraduate diploma in management for health and social care. All the while I was progressing clinically and in my career. I became chair of the Association of Chartered Physiotherapists in Cystic Fibrosis (ACPCF) and sat on various national and international committees to support the development of standards and guidelines for best practice.

"Leading on from my work at the Trust I was able to attend and present at national and international conferences. As my career became more managerially focused, I had the opportunity to be involved in the Allied Health Professional NHS London advisory group, and became the lead for specialist hospitals and organisations like the London Ambulance Service and The Royal Marsden Hospital."

Since her appointment as director of rehabilitation and therapies, supported by the Trust, Penny has won a Florence Nightingale Foundation Leadership Scholarship, and:

- Completed a Leading Change and Organisational Renewal course delivered by Harvard Business School with extensive personal leadership assessment and evaluation
- Completed a High Performance Leadership programme at the internationally renowned Cranfield University School of Management
- Received mentoring from the chief nurse at NHS England (London).

As part of the Florence Nightingale Foundation award, Penny will also develop a seven-day service for rehabilitation and therapies. She has also secured training opportunities at:

- The Cleveland Clinic in Ohio (executive visitors' programme)
- The Virginia Mason Institute in Seattle (transformational change)
- The Disney Institute (leadership course).

"I'm proud of my achievements and the way I've developed personally and in my career. I've always felt valued, supported and encouraged in my work. I am certainly very grateful for the excellent opportunities I have had throughout my career here."

Penny Agent, director of rehabilitation and therapies

Training the consultants and GPs of tomorrow

Dr Jo Szram, consultant respiratory physician and director of medical education

> “It’s vitally important with each new allocation of junior doctors that we give them the best training, experience and understanding of what we do”

In October 2014, Dr Jo Szram, consultant respiratory physician specialising in occupational lung disease, was appointed director of medical education. She is responsible for the education and training of all junior doctors at both hospitals. Dr Szram is also an honorary clinical senior lecturer at the National Heart and Lung Institute, Imperial College, and a Fellow of the Higher Education Academy.

Dr Szram is supported in her role by dedicated educational administrators, simulation and training teams, HR teams and divisional leads.

“I’ve always had a passionate interest in education and I can never resist a challenge – that’s why I wanted to take on this additional role. Most of my family are teachers and from an early age I have been aware of the benefits training and education can offer,” explains Dr Szram. “It’s vitally important with each new allocation of junior doctors to the Trust that we give them the best training, experience and understanding of what we do. That way they will always remember their training period with us and be excellent advocates for the Trust.”

In 2014/15 over 150 junior doctors spent time at the Trust via local education and training boards (LETBs), which constitute around half the junior medical staff within the organisation; the remainder are appointed directly and funded by the Trust. In general, they attend from Imperial College School of Medicine (NW London), the academic health science partnership UCL Partners (North East and Central) and Health Education South London (HESL).

"Before they join us some of the doctors won’t know what to expect about working in a tertiary hospital, and they are naturally nervous coming to an organisation where complex procedures and treatments are carried out using specialised equipment.

“A key part of our success in medical education is due to the expertise and skill of our consultants, who take immense pride in supporting junior medical staff,” says Dr Szram.

Additional training support offered:

- 1:1 support from clinical and educational supervisor, tutors from the Royal Colleges and regional advisors.
- “Leading from the front” leadership and management sessions, skills and simulation training.
- Schedules devised with specific free time to attend training.
- Opportunities to broaden clinical and research skills.

“This is a dynamic time to be involved in education and training provision,” Dr Szram concludes. “We are expanding the programme of training courses offered to internal and external delegates and are also in discussions to develop externally accessible e-learning modules in sub-speciality areas with a variety of commercial education partners, who have approached us to collaborate in delivering learning in the Trust’s areas of expertise.”

> “Excellent patient feedback makes us feel proud to work here; knowing that patients value being cared for by us from the outset and have high expectations.”

we are responsible

We believe in being open about where our money goes, and in making our hospitals environmentally sustainable.

The Trust is committed to openness and transparency.

A great deal of information is reported to external regulators, and a clinical quality report is provided to the Trust board each month to ensure that both executive and non-executive directors are fully appraised of relevant information. Trust board meetings are held in public and questions from members of the public are invited and encouraged.

The NHS Standard Contract stipulates which information the Trust must provide to regulators. This includes activity and performance information that is submitted to the Department of Health. Reports relating to serious incidents and "near misses" are sent to the National Reporting and Learning System (NRLS) and are accessed by the Care Quality Commission (CQC) from this source. Some information is reported directly to the CQC as required through their system of statutory notifications.

The CQC publishes "Intelligent Monitoring" reports every three to four months. These are largely based on information submitted by the Trust to the systems outlined above, but also include information reported directly to CQC, such as the results of the national patient surveys.

These processes ensure accountability by enabling open debate at board meetings on the basis of up-to-date information, which highlights areas of good performance and any areas of concern.

Freedom of Information

The Freedom of Information Act 2000 provides public access to information held by public authorities.

It does this in two ways:

- public sector organisations are obliged to publish certain information about their activities; and
- members of the public are entitled to request information from them.

The Act covers any recorded information that is held by a public authority in England, Wales and Northern Ireland, and by UK-wide public authorities based in Scotland.

The Trust supports Freedom of Information (FoI) requests by providing clear and easily accessible information on the Trust website via the Publication Scheme, a complete guide to the information routinely published by the Trust.

The Trust's FoI team acknowledges FoI requests from the public within two working days and provides a response within 20 working days.

From 31 March 2014 to 1 April 2015, the Trust received 630 FoI requests, covering a wide range of topics. The two largest categories were expenditure and clinical performance.

The Trust is committed to reducing carbon emissions and uses greener technologies wherever possible.

Royal Brompton & Harefield NHS Foundation Trust accounts for year ended 31 March 2015

Statement of comprehensive income as at 31 March 2015

	Year ended 31.03.15 £000	Year ended 31.03.14 £000
Operating income from patient care activities	**337,979**	308,753
Other operating income	**32,413**	31,179
Total operating income from continuing operations	**370,392**	339,932
Operating expenses	**(366,301)**	(333,090)
Operating surplus from continuing operations	**4,091**	6,842
Finance income	**36**	50
Finance expense – financial liabilities	**(160)**	(30)
Finance expense – unwinding of discount on provisions	**(11)**	(16)
PDC dividends payable	**(6,681)**	(6,355)
Net finance costs	**(6,816)**	(6,351)
Movement in the fair value of investment property and other investments	**(593)**	4,050
(Deficit)/surplus for the year	**(3,318)**	4,541
Other comprehensive income (will not subsequently be reclassified to I&E)		
Impairments	**-**	(6,878)
Revaluations of operational properties	**1,320**	1,764
Other reserve movements	**1**	(3)
Total comprehensive expense for the period	**(1,997)**	(576)

Statement of financial position as at 31 March 2015

	As at 31.03.15 £000	As at 31.03.14 £000
Non-current assets		
Property, plant and equipment	**189,224**	179,765
Investment properties	**30,612**	31,205
Total non-current assets	**219,836**	210,970
Current assets		
Inventories	**11,186**	9,676
Trade and other receivables	**46,828**	27,384
Cash and cash equivalents	**9,476**	19,146
Total current assets	**67,490**	56,206
Current liabilities		
Trade and other payables	**(46,724)**	(41,657)
Borrowings	**(10,039)**	(4,640)
Provisions	**(856)**	(1,989)
Total current liabilities	**(57,619)**	(48,287)
Total assets less current liabilities	**229,707**	218,889
Non-current liabilities		
Borrowings	**(10,000)**	-
Provisions	**(2,234)**	(2,267)
Total non-current liabilities	**(12,234)**	(2,267)
Total assets employed	**217,473**	216,622
Financed by		
Public dividend capital	**108,152**	105,304
Revaluation reserve	**49,924**	48,603
Income and expenditure reserve	**59,397**	62,715
Total taxpayers' equity	**217,473**	216,622

Governance

Royal Brompton & Harefield NHS Foundation Trust has been an independent legal entity with a unique governance structure since 1 June 2009. The powers of the Trust are set out in the National Health Service Act 2006, as amended by the Health and Social Care Act 2012. The Trust governance arrangements are enshrined in the Royal Brompton & Harefield NHS Foundation Trust Constitution and include the Trust membership, the council of governors and the board of directors.

The Trust board plays a key role in shaping the strategy, vision and purpose of the organisation. Board members are responsible for assuring that risks to the Trust and the public are managed and mitigated effectively. Led by an independent chair, Sir Robert Finch, and composed of a mixture of both executive and independent non-executive members, the board has a collective responsibility for the performance of the organisation. The council of governors, which comprises both elected and appointed parties, challenges the board and holds the non-executive directors to account for the board's performance. The elected parties are drawn from the membership and the appointed parties represent key stakeholders. We have around 11,000 members with whom we regularly consult on Trust strategy and service planning. Members are drawn from three constituencies: patient, public and staff. Independent regulation of the Trust is undertaken by Monitor.

The governance structures comprise:

The council of governors appoints the external auditor. A sub-committee, the nominations and remuneration committee, considers the appointment of the chairman and the other non-executive members of the Trust's board of directors. Management of the foundation trust is delegated to the Trust's board of directors. There are three formal committees of the Trust board: the audit committee, the risk and safety committee and the nominations and remuneration committee.

Quality Account

High Quality Care for All (2008) proposed that all providers of NHS healthcare services should produce a Quality Account: an annual report to the public about the quality of services delivered. The Health Act 2009 made this a statutory requirement and in 2010 Quality Accounts were introduced.

During 2013/14, Monitor introduced some additional requirements that mean foundation trusts are required to produce a Quality Report.

This contains all of the elements of the Quality Accounts plus the additional Monitor elements.

The Quality Account 2014/15 is available at www.rbht.nhs.uk/qa and on the NHS Choices website: www.nhs.uk

Visit our website to read the Trust's full annual report and accounts for 2014/15 – www.rbht.nhs.uk/report-accounts – and for more information about our policy and performance – www.rbht.nhs.uk/performance

"Champion of nurses" retires

In February 2015, Dr Caroline Shuldham OBE, director of nursing and clinical governance, retired from the Trust after 24 years of service.

At an event to mark the occasion, Sir Robert Finch, chairman, began the speeches by thanking Dr Shuldman for her "kindness, professionalism, commitment and high standards". Sir Robert described her as "the epitome of what nurses of the highest quality should be... a champion of nurses and a champion of our hospitals".

Caroline Shuldham joined the Trust in 1990 as head of education. She was awarded an OBE in 2009 for services to healthcare.

Chief executive, Robert Bell, said: "Caroline's wise counsel has been an important and welcome feature in board discussions, but her influence has extended far beyond the boardroom. Her leadership has ensured the Trust benefits from a highly skilled and engaged nursing workforce whose enthusiasm for professional development is a direct result of Caroline's commitment in this area."

OUR BOARD MEMBERS

Executive members – full year

Professor Robert J Bell
Chief executive

Mr Robert Craig
Chief operating officer

Professor Timothy Evans
Medical director and deputy chief executive

Mr Richard Paterson
Associate chief executive – finance

Executive members – part year

Dr Caroline Shuldham OBE
Director of nursing and clinical governance

Ms Joy Godden
Interim director of nursing and clinical governance

Mr Nicholas Hunt
Director of service development

Non-executive members

Sir Robert Finch
Chairman

Non-executive directors – full year

Mrs Lesley-Anne Alexander CBE

Professor Kim Fox

Mr Richard Hunting CBE

Mr Neil Lerner
(deputy chairman)

Ms Kate Owen

Dr Andrew Vallance-Owen MBE *(senior independent director)*

Mr Richard Jones

Non-executive directors – part year

Mr Philip Dodd

> We have around 11,000 members with whom we regularly consult on Trust strategy and service planning.

OUR COUNCIL OF GOVERNORS

Public governors – full year

Mr Kenneth Appel
Bedfordshire and Hertfordshire

Mr Brian Waylett
Rest of England and Wales

Public governors – part year

Mr George Doughty
North West London

Mr Anthony Connerty
South of England

Mr Philip Dodd
North West London

Patient and carer governors – full year

Mrs Chhaya Rajpal
North West London

Mr Guthrie McKie
North West London

Mrs Brenda Davies
Bedfordshire and Hertfordshire

Mr Peter Kircher
Bedfordshire and Hertfordshire

Mr Edward Waite
South of England

Mr Stuart Baldock
Elsewhere

Dr Ejikeme Uzoalor
Elsewhere

Dr Adrian Lepper
Representing patient carers

OUR COUNCIL OF GOVERNORS *(continued)*

Appointed governors

Councillor Mrs Victoria Borwick
London Borough of Kensington and Chelsea

Mr Ray Puddifoot
London Borough of Hillingdon

Professor Mary Morrell
Imperial College London

Staff governors

Dr Ian Balfour-Lynn

Dr Claire Hogg

Ms Anne McDermott

Dr Andrew Morley-Smith

Dr Alistair Lindsay

A commitment to making our hospitals environmentally sustainable

The Trust is committed to reducing carbon emissions in line with the Department of Health's NHS Carbon Reduction Strategy 2009. A carbon management plan, updated in spring 2014, sets out how progress will be made towards achieving the targets set out in the strategy.

A carbon management group, chaired by the Trust's head of estates and facilities, meets four times each year and works with departments throughout the organisation to implement the plan. Membership of the group includes representation from the estates, nursing, transport, I&T, and human resources teams. A project register identifies where savings can be achieved and what progress has been made. There are currently 58 projects listed.

The Trust continues to participate in the Carbon Reduction Commitment Energy Efficiency Scheme and reports annually in July of each year as required.

CRC emissions for 2014/15 are currently projected to be 14,635 tCO2. This represents a 5% fall on the previous year.

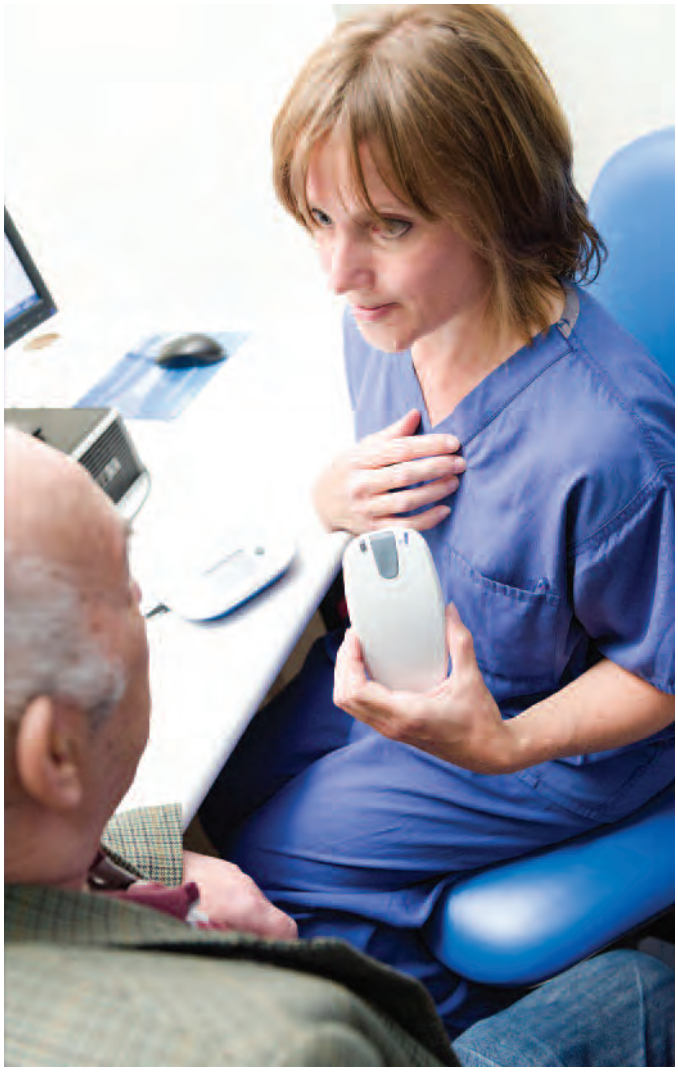
Reducing the carbon footprint through remote monitoring

Developments in technology provide significant opportunities for hospitals to reduce their carbon footprint by limiting the number of journeys patients are required to make. In 2014, remote monitoring became standard for all new and existing patients with heart rhythm problems cared for at Harefield Hospital. The service also began to supply cellular implantable cardioverter defibrillator (ICD) remote monitors, which can usually operate without a telephone landline or wi-fi.

Before remote monitoring was introduced, patients were asked to attend an outpatient appointment every three months. By making remote monitoring a basic element of continuing care, hospital appointments are reduced, and monitoring is improved. Cellular monitors also offer worldwide access.

Consultant cardiologist, Dr Mark Mason, and his team, who lead the cardiac remote monitoring service, are pioneers in ICDs. ICDs are used for patients who have abnormal heart rhythms (arrhythmias), such as potentially dangerous fast heart rhythms known as ventricular tachycardia or ventricular fibrillation. An ICD is implanted under the skin in the left upper chest area to monitor the rate and rhythm of the heart.

The remote monitor, which is generally kept at a patient's home, performs daily measurements using information from the ICD. The monitor checks the device for alerts (such as an abnormal measurement) on a daily and weekly basis. Alerts are also triggered when arrhythmias (when the heart beats too fast, too slow, or with an irregular rhythm) are detected. If required, the ICD can deliver an electrical shock or pacing therapy to return the patient's heart to a normal rate and rhythm. All alerts are transmitted directly to the cardiac remote monitoring team for analysis.



Claire Parker, chief cardiac physiologist, demonstrates a remote monitor to a patient

Claire Parker, chief cardiac physiologist at Harefield Hospital, explains: "Patient remote monitors are very user friendly; some models simply require pressing a button on the monitor. Others require putting a header (handset) over the device to allow the data to be extracted. Newer monitors work wirelessly and the header sits on the base of the monitor rather like a home telephone, allowing automatic transmission of data from the header to the base. The base then transmits the data to the team to analyse. The whole process takes less than five minutes and saves the hours of travel time and costs

patients would incur if they had to attend a clinic appointment."

Monitoring by mobile

AliveCor heart devices were introduced at Royal Brompton Hospital in 2014/15 for recording arrhythmias. AliveCor uses technology specific to a patient's iPhone model and supplements rhythm diagnosis.

The monitors attach to most smart devices and can record a real-time, accurate ECG. If patients have any symptoms, they can record an ECG within the app anywhere, anytime.

There is no need for traditional ECG electrodes (stickers), which is a significant advantage for patients who have sensitive skin or are irritated by electrodes.

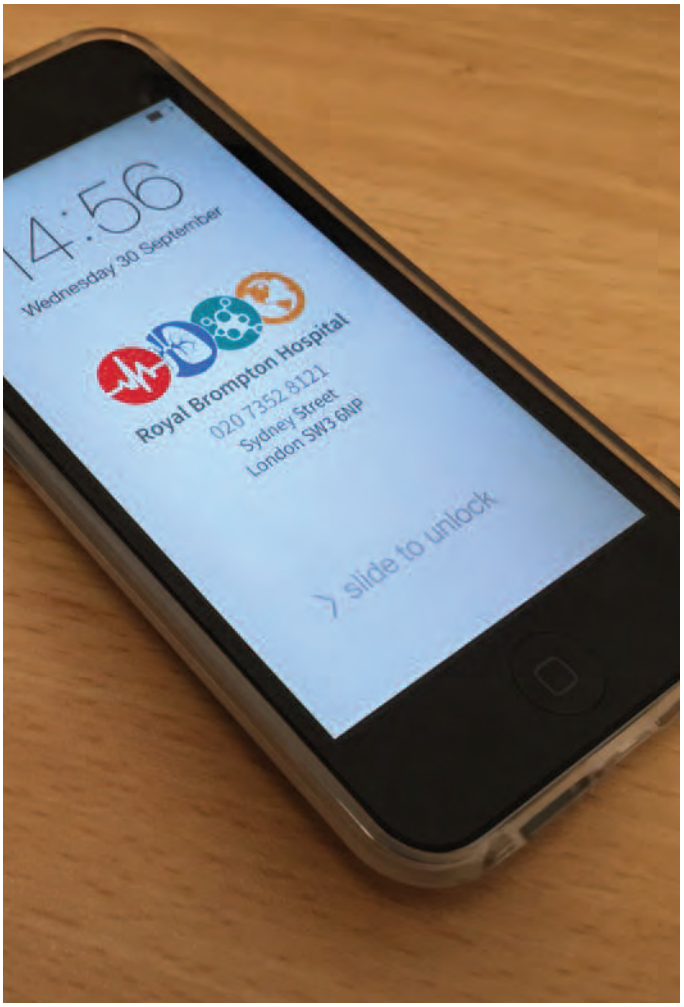
The devices can record an ECG from 30 seconds up to five minutes, which is then remotely transmitted from anywhere in the world to Royal Brompton for analysis.

The devices are particularly useful for patients who have infrequent symptoms as they can keep the device for long periods to capture symptoms. They can be used with both children and adults.

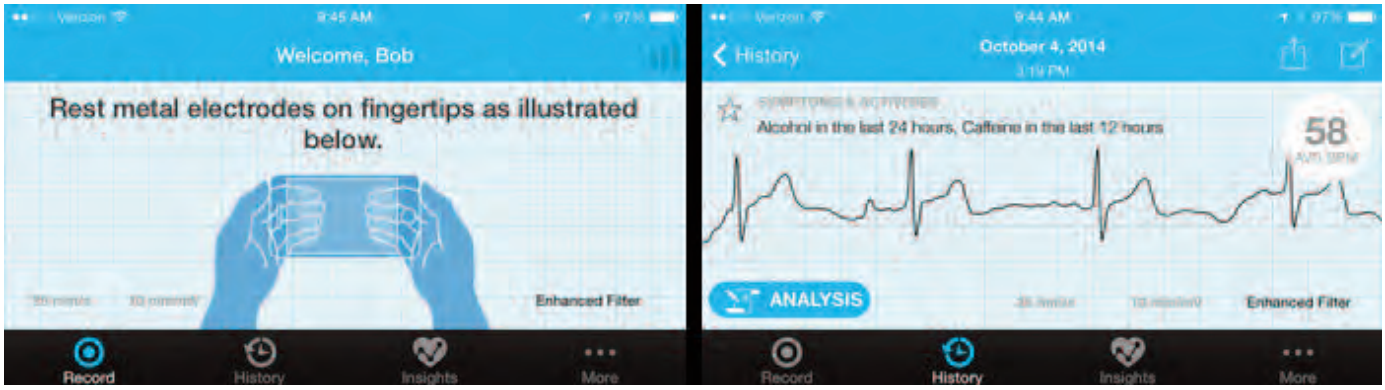
They are cost effective as the devices themselves cost less than other heart monitors and savings are made on consumables i.e. ECG electrodes.

The carbon footprint for the Trust is reduced as these devices are returned by post and are re-usable for other patients.

At present, the team at Royal Brompton is undertaking a more formal pilot trial for all patients using two versatile monitors: a 'Plate', which can be attached to any smart device i.e. tablets, iPods, iPhones; and a pre-configured iPod for patients who do not own a smart device.



AliveCor uses technology specific to a patient's iPhone model and supplements rhythm diagnosis



we discover

We believe it is our duty to find and develop new treatments for heart and lung disease, both for today's patients and for future generations.

Research into cardiovascular and respiratory medicine is central to the Trust's mission and our starting point is the needs of the patients we treat every day. By investigating the causes of their conditions and testing new ways of diagnosing and treating them, we have been responsible for many significant medical advances that have been taken up across the NHS and beyond.

The Trust's portfolio of cardiovascular and respiratory research encompasses numerous active studies across the breadth of our clinical practice.

Over the years we have nurtured strong partnerships with institutions such as Imperial College London and the National Institute of Health Research (NIHR) to provide our clinical teams with the necessary academic and financial support to advance their research programmes. Our cardiovascular and respiratory biomedical research units (BRUs), operated jointly with Imperial College and funded by the NIHR and the Trust, are vital to enabling our best health researchers and clinicians to continue pioneering research into complex heart and lung conditions. The BRUs house specialist, state-of-the-art equipment, share core facilities such as biobanks, implement important patient and public involvement programmes, and are key to educating the next generation of researchers.

We work with other universities, including the University of Nottingham, and numerous NHS organisations, such as Liverpool Heart and Chest, and Chelsea and Westminster hospitals, so that we all benefit from access to larger clinical populations, data banks, and knowledge sharing.

Trust researchers also recognise the importance of working with industry partners to run clinical trials, to conduct sponsored research, and to offer patients opportunities to participate in cutting-edge research. We collaborate with a variety of companies – large and small pharmaceuticals, and medical device, diagnostic and biotechnology companies – on investigator-led, commercial research partnerships.

Our research supports the four goals of the 2012-2015 research strategy:

- Support and develop research-active staff.
- Exploit opportunities to attract and retain research funding.
- Promote and increase engagement in Trust research.
- Provide research facilities, effective research resources and administrative support.

2014/15 research highlights

Supported a research portfolio of more than £17m, including £12m of charitable and public sector funding.

Hopes for clearer prognosis from major study

In March 2015, Dr Toby Maher, consultant respiratory physician at Royal Brompton Hospital and head of the Fibrosis Research Group at Imperial College London, with Anne-Marie Russell, senior research nurse at Royal Brompton and Dr Gisli Jenkins from the University of Nottingham, developed a blood test to give patients with idiopathic pulmonary fibrosis (IPF) a clearer idea of their prognosis and a better understanding of whether or not current treatments to slow down progression of the disease will be effective.

The condition, thought to affect up to 20,000 people in the UK, causes progressive scarring of the lungs (fibrosis) and is often fatal. The term idiopathic means that the cause of the disease is unknown, but risk factors include smoking, exposure to wood, metal and mineral dusts, and previous viral infections.

The study, known as the PRospective Observation of Fibrosis in the Lung clinical Endpoints (PROFILE), is the largest and most detailed observational IPF study of its kind, and involves more than 200 newly diagnosed IPF patients.

Blood samples were analysed throughout a six-month period to record the concentrations of several neoepitopes (types of protein). Results showed that neoepitope levels were higher in those with the condition compared with healthy people. Some of the biomarkers were associated with worsening disease and outcomes. Changes in concentration levels after three months appeared to predict the progression of IPF earlier than the physiological measurements generally used.

"Conducting clinical trials in IPF is extremely important as part of the process for getting newly developed medicines into the clinic," said Dr Maher. "For example, until two years ago, there weren't any treatments in the UK. But clinical trials have resulted in two drugs being made available – pirfenidone and nintedanib. These drugs have been seen to slow the progression of the disease."

2014/15 research highlights

Identified as a best performing NHS trust for meeting national benchmarks for study set-up

International recognition for Trust research

Professor John Pepper OBE, consultant cardiac surgeon

The results of a study into ischaemic mitral regurgitation conducted by Professor John Pepper OBE, consultant cardiac surgeon at Royal Brompton Hospital, were incorporated into the 2014 American Heart Association (AHA) / American College of Cardiology (ACC) Guidelines. The findings, from a randomised multicentre controlled study known as the RIME (randomised ischaemic mitral evaluation) trial, were published in the journal *Circulation*.

The trial compared two treatments for patients suffering moderate ischaemic mitral regurgitation (leakage), who were undergoing heart bypass surgery: standard coronary artery bypass graft (CABG) or CABG plus mitral valve repair. The aim was to determine if the combined procedure would improve the heart's functional capacity more significantly than the CABG alone.

Ischaemic mitral regurgitation (MR) occurs when the mitral valve of the heart fails to close properly while the heart is pumping blood, allowing blood to leak backwards from the left ventricle into the left atrium as the ventricle contracts. This puts extra strain on the heart, which can lead to heart failure. MR occurs in 30 to 40 per cent of patients following a myocardial infarction (heart attack). Trust clinicians treat around 560 patients with this condition each year.

Professor Pepper's results suggested that CABG plus valve repair does improve outcomes for patients compared with CABG alone. The AHA / ACC guidelines now recommend that surgical intervention to treat MR by repair or replacement of the mitral valve is justified in patients with chronic secondary MR, but may also be considered for patients with moderate secondary MR, who are undergoing other cardiac surgery. Professor Pepper said: "Being included in this international level guidance highlights the direct impact that these kinds of trials can have on improving patient care."

Discovery of genetic mutation will help early diagnosis and management of heart condition

One of the scientific themes of the NIHR Royal Brompton Cardiovascular Biomedical Research Unit (BRU) is genetics and genomics.

The Trust's genetics and genomics lab was established to provide expertise at national and international level, about the genes involved in cardiovascular disease and their use in diagnostic and therapeutic strategies.

Inherited cardiac conditions (ICCs) are the most common cause of sudden cardiac death in the young and a major cause of death and disability across all age groups. Families affected by sudden cardiac death often undergo tests over several years and suffer great anxiety, after the unexpected death of a relative from inherited heart disease.

In January 2015, Professor Dudley Pennell, director of the cardiovascular BRU and the cardiovascular magnetic resonance (CMR) unit at the Trust, with Professor Stuart Cook, from Imperial College London, announced a breakthrough in understanding the significance of gene mutations in dilated cardiomyopathy (DCM). DCM is an inherited condition where weakening of the heart muscle prevents it from pumping efficiently, leading to heart failure. It is estimated that around one in 250 people has DCM.

Their research identified genetic mutations that cause DCM, paving the way for more accurate diagnosis.

This new discovery helps to determine which mutations of the Titin gene are harmful and which are not, providing information that will help screen high-risk patients. For many people, variations in the genetic code are completely harmless and do not damage the heart. Professor Dudley Pennell said: "This research reveals which genetic mutations are bad and which are there purely as bystanders. It will benefit patients with cardiomyopathy and enable us to reassure relatives who do not have the disease, allowing them to be discharged from clinic and preventing needless anxiety and unnecessary expensive tests."

The new study, published in *Science Translational Medicine*, gives doctors a comprehensive list to interpret patients' DNA sequences. The research team is hopeful that this information could also help to develop therapies to prevent or treat heart disease caused by titin mutations. Professor Stuart Cook said: "These results give us a detailed understanding of the molecular basis for dilated cardiomyopathy. We can use this information to screen patients' relatives to identify those at risk of developing the disease, and help them to manage their condition early."

The research was funded by the MRC, the British Heart Foundation, Fondation Leducq, the Wellcome Trust, the NIHR cardiovascular BRU and the NIHR Imperial Biomedical Research Centre.

2014/15 research highlights

Catalogued donated tissue from 2,227 patients in the Trust's research biobanks

Professor Dudley Pennell, director of the cardiovascular BRU and the CMR unit at the Trust

RESEARCH IN NURSING

Research nurses play a pivotal role in the successful delivery of research studies. To support those involved in research, a research group steering committee holds quarterly forums that feature guest speakers, regulatory updates, relevant training and discussion of professional development opportunities. The group was established to:

- Develop a well motivated, competent and proficient group of research nurses who collaborate actively with one another.
- Provide training to ensure strict codes of governance and regulatory compliance relating to clinical research are adhered to.

Findings presented at RCN research symposium

Staff take pride in sharing their research findings nationally and internationally, for the benefit of patients everywhere.

In spring 2014, nursing staff presented at the Royal College of Nursing (RCN) International Research Conference in Glasgow.

Head of research in nursing, Sharon Fleming, chaired the symposium session on "Experience-based co-design (EBCD): stories from clinical practice".

The session was drawn from a collaborative research study with support from the King's Fund, Oxford University and King's College London.

The study used video recordings of patients describing their own personal experience of healthcare, as a trigger for in-depth and structured discussion around improving services through partnership working. A staff group and a patient group from Harefield Hospital's intensive therapy unit, and a patient group from Royal Brompton Hospital's lung cancer unit, collaborated and made a number of improvements as a result. Following this success, a second EBCD project was undertaken with lung cancer patients at Harefield Hospital. This also had a number of positive outcomes for both patients and staff members, such as creating new patient information about going home with a chest drain, and establishing an enhanced recovery programme for lung cancer patients. The programme includes pre-admission clinics for all thoracic surgery patients at both hospitals.

John Pearcey, cancer services manager, who co-presented at the symposium, said: "EBCD has been very successful in helping us make significant changes that have direct benefits for patients. It was testament to the hard work of all involved that the team led this symposium at the prestigious 2014 RCN research conference."

2014/15 research highlights

Recruited 3,149 patients into more than 175 studies (2,384 patients for NIHR portfolio studies)

Patient collaboration helps develop teaching toolkit

The respiratory medicine nursing team at Royal Brompton Hospital cares for patients with the following respiratory diseases:

- Cystic fibrosis
- Lung failure (receiving total and part-time ventilation therapy at home)
- Immune system issues
- Interstitial lung disease
- Complex asthma and allergy.

Many patients need lifelong care with regular admissions to hospital to manage deteriorations and changes to treatments. Team members wanted to research a number of techniques to enable patients to manage the distressing symptoms of breathlessness, which is often associated with complex lung conditions.

In April 2014, the respiratory team was funded by the Foundation of Nursing Studies (FoNS) Practise Based Development and Research Programme, to explore non-medical management of breathlessness to complement traditional pharmacological methods. Paul Lidgate, charge nurse and member of the research project steering group, said: "The idea underpinning our research was to give patients some degree of self-management of their breathlessness through techniques that complement medical treatment, and for the patients to learn techniques they could use in everyday life, wherever they are. Often, patients feel helpless and reliant on medical treatment to reduce their breathlessness."

After researching an extensive range of literature, the team organised a patient and staff event where those attending selected their preferred top five techniques:

- Positioning – adopting a number of positions best suited for individual patients in order to maximise breathing and reduce breathlessness.
- Using a handheld fan – held by the patient and directed around the lower part of their face, around the nose and mouth. The fan cools the air passing over some receptors in the nose, which sends a signal to the central part of the brain reducing the sensation of breathlessness.
- Abdominal breathing – this includes the effective focused use of the breathing muscles, particularly the diaphragm.
- Pursed lip breathing – in certain lung conditions this technique can help reduce the work of breathing, reducing breathlessness and helping relaxation.
- Guided relaxation – can be used to reduce muscle tension. As the muscles relax, patients may find it easier to breathe. Guided imagery can calm anxious thoughts and help ease breathlessness.

The nursing team used an EBCD approach for the project. EBCD involves working with patients as equal partners to improve their experience of services. For this project, each nurse partnered with a team of patients to co-design teaching and relevant information for a toolkit, which can be used to teach the preferred breathing techniques.

PATIENT EXPERIENCE

Michael Tubbs, aged 27, benefits from the new Organ Care System

Michael, from London, was diagnosed with cystic fibrosis as a baby. He was referred to Royal Brompton, aged four, by his GP and local children's hospital.

"My condition didn't affect me as a young boy but when I was 10 I started to get chest infections about twice a year. From then onwards I went to Royal Brompton every three months for a two-week course of IVs (intravenous antibiotics) to keep me healthy. I still wasn't affected by my cystic fibrosis much and played football with my friends."

By the age of 17 Michael was having more frequent chest infections and needed to stay at Royal Brompton more often.

"Each time I would get a productive cough, a tight chest, difficulty breathing, fever and I had no energy. The care from all of the doctors and nurses at Royal Brompton was very good and all my tests and treatment were always done on time."

His condition deteriorated two years ago, when part of his right lung collapsed. While chest drains helped initially, his lung kept collapsing and would not heal.

Michael after his double lung transplant at Harefield Hospital

"I ended up staying in hospital for nearly a year," Michael remembers. "The doctors said my lung wasn't healing because all my previous infections had damaged the lining of my lung, making it weak.

"It was horrible not being able to see my friends, missing family birthdays and doing the things I used to do, but I knew that, as a specialist lung hospital, Royal Brompton was the best place for me to get the care I needed."

The cystic fibrosis team asked Michael if he wanted to join the lung transplant list and he had general health checks to see if he was suitable.

"Transplant surgeon, Mr André Simon, visited me on Foulis ward to tell me more about the operation because I was too ill to go to Harefield Hospital where the transplant team is based. He was confident about doing it and told me not to worry, which was reassuring and made me feel better."

Two weeks later a suitable pair of donor lungs became available and Michael was transferred from Royal Brompton to Harefield by ambulance.

"I wasn't living a good life at that stage. I was so ill that I couldn't even get out of bed to have a shower – I would cough so much that I would end up being sick.

"It was a relief to know that would soon be over, but it was also scary thinking about the surgery. The staff at Harefield explained exactly what was happening to me and I was involved in every step. That was really good because it would have been more nerve-wracking not knowing what was going on.

"I was told that my new lungs had been put inside a machine, called the Organ Care System (OCS), which recreates the conditions in the body and makes lungs 'breathe' to see how well they are working. It meant the transplant team could assess whether or not the lungs were suitable for transplantation. The staff

explained the machine was a piece of cutting-edge technology and that I was one of the first lung transplant patients to benefit from it at Harefield – previously it was only used for heart transplants.

"Everyone made me feel as at ease as possible in the hours before the operation and kept me updated on when I was going into theatre.

"I woke up on the intensive care unit about 36 hours later and stayed there for another three days, before being taken to the ward. I was told that everything had gone really well and I started to go on the exercise bike for short periods of time and walk around the ward.

"The nurses on the ward were friendly and helpful, the food was good and I enjoyed having my own room with a TV. The physiotherapists were also very nice – it was a really good hospital to stay in.

"I was discharged after about three weeks, which was less time than I thought I'd need to be there for.

"Now I'm doing really well and taking my dogs for walks again. The transplant has changed my life. Even though I was slightly nervous to be one of the first lung transplant patients to receive my donor lungs from the OCS, now I'm really pleased that I was able to benefit from the new technology."

The Organ Care System uses cutting-edge technology to recreate conditions in the body

PATIENT EXPERIENCE

Phil Havell, aged 68, took part in a clinical trial for an innovative emphysema treatment at Royal Brompton last year

Fifteen years ago Phil Havell, from Wisbech, Cambridgeshire, decided to stop smoking. As is often the case when people first stop smoking, he started to get colds and chest infections.

"My doctors gave me steroids and antibiotics to treat the infections, but they kept coming back, and I was getting worse over time," explains Phil. "I also started to feel breathless."

Ten years ago Phil's GP diagnosed him with chronic obstructive pulmonary disease (COPD), an umbrella term for a collection of conditions causing lung damage, including chronic bronchitis and emphysema (in which the tiny air sacs in the lungs are damaged).

"I was given inhalers and nebulisers. But I still had frequent chest infections and a couple of years later things got so bad that I was admitted to my local hospital, The Queen Elizabeth Hospital in King's Lynn."

As time went on Phil's admissions to hospital became more frequent and he was put under the care of a respiratory consultant at The Queen Elizabeth Hospital.

"Gradually I became so breathless that I could no longer go upstairs and had to convert my garage into a bedroom. I needed portable oxygen, nebulisers and inhalers all the time and took numerous pills daily, which sometimes made me so tired that I slept all day. I was breathless all the time, even when I was talking, my chest felt very tight and I had a bad cough.

"I couldn't go out alone and I was in and out of hospital nearly every month. It affected me very badly because I used to be really active, and it had a huge impact on my wife, Jane, too. I felt that my life wasn't worth living the way it was."

In November 2012, Phil's consultant at The Queen Elizabeth told him about an exciting new trial at Royal Brompton that he had heard about at a conference overseas. Patients with severe emphysema were being offered a treatment that involved wires being placed in areas of damaged lung through a bronchoscope (a tube-like device normally used to see the inside of the airways and lungs). Once in place, the wires coiled up, acting like springs to keep the airways apart and restore the tension that patients' lungs had lost.

Within two weeks of Phil's consultant recommending him for the trial, he was given an appointment at Royal Brompton. Phil met Dr Pallav Shah, consultant physician in respiratory medicine, who told him more about the research and he was eventually recruited onto the trial.

"The care at Royal Brompton has always been very good and the doctors talk in my language, rather than using technical terms. I usually saw Dr Will McNulty, clinical research fellow in respiratory medicine, who was brilliant and very good at explaining things in a way I could understand."

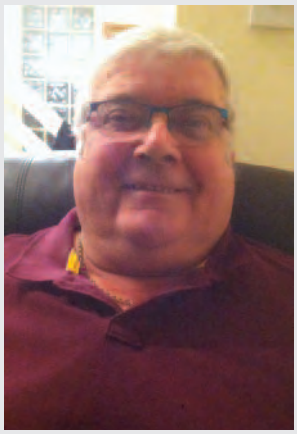
Phil had the coils placed into his right lung during a 30-minute procedure performed by Dr Shah at Chelsea and Westminster Hospital in August 2014, and then his left lung was treated in late September. He continued coming to Royal Brompton for follow-up over the next year.

"I had no reservations about being a guinea pig – I couldn't go on the way I was.

"My life has improved a lot since having the treatment. I've only had one bad episode in the last year, which resulted in a hospital stay, compared with one every month. I no longer run out of breath talking, my colour has improved and I don't need to use oxygen during the day like I used to.

"Now I can go out by myself in the car, so socially things are much improved, and I can do more everyday tasks that I couldn't before, such as cook dinner.

"At my last appointment at Royal Brompton in August,



I was told that my lung function had improved, and now I only need to come back once a year. I was very lucky to benefit from such new technology, I believe I'd be dead without it – my heart couldn't take all of the bad episodes I used to have.

"Everyone at Royal Brompton does such a good job and they are so friendly. They know I travel far for each appointment and make sure all the tests I need follow on from each other so I'm not waiting around. I can't praise the team enough."


3M

Claire Nolan, specialist pulmonary rehabilitation physiotherapist

STAFF PROFILE

Claire Nolan is a specialist pulmonary rehabilitation physiotherapist at Harefield.

Claire received a £250,000 NIHR doctoral research fellowship in September 2014.

Her fellowship aims to determine how reliable, valid and responsive usual walking speed is in patients with idiopathic pulmonary fibrosis (IPF) through a four-metre gait speed (4MGS) test. In particular, the research will analyse baseline speed at the point of diagnosis and changes over time, to determine whether or not walking speed is able to predict mortality and non-elective hospital admission in IPF patients.

This will be compared with currently used surrogate markers, such as baseline and change in the total amount of air a patient can exhale during a forced breath test, gas transfer (TLCO) – used to determine the gas-transfer function of the lungs, six-minute walk tests (6MWT) and features identified on high resolution computed tomography (HRCT) scanning.

If the research validates 4MGS as a feasible surrogate marker, it has the potential to change the future design of therapeutic trials in IPF, and provide further impetus to the NHS and industry to develop and test therapies for patients with the condition, which has no cure and an average life expectancy of three years after diagnosis.

Claire's supervisor, Dr Will Man, consultant chest physician, said: "Should 4MGS prove to be a valid surrogate endpoint in IPF, it will allow clinicians in the NHS to provide more information about prognosis to patients with IPF and their carers, who currently face a highly uncertain and unpredictable future."

The team supporting Claire's fellowship include Dr Man, Dr Toby Maher, consultant respiratory physician, Professor Paul Cullinan, consultant in respiratory medicine, and Dr Matthew Maddocks, lecturer and specialist physiotherapist from King's College London.

PATIENT EXPERIENCE

New devices allow patients to have MRI scans

Heart rhythm patients at Harefield Hospital were among the first in the UK to benefit from a new implantable device which was designed to allow them to undergo vital MRI health checks.

People with traditional pacemakers and ICDs, which send electrical pulses to the heart to change a dangerous rhythm into a normal one, are unable to benefit from MRI technology because of a risk that the scans could make their heart devices malfunction.

The imaging technique uses a powerful magnetic field which can stop the metal leads in the devices working properly, so patients cannot have this type of scan.

MRIs allow doctors to view detailed images of internal organs and blood vessels and are a crucial tool when it comes to diagnosing many conditions, including heart problems and cancer. Patients with conventional pacemakers and ICDs have traditionally undergone alternative forms of screening instead, such as X-rays and ultrasounds, which could lead to a delayed diagnosis. Harefield was one of the first hospitals in the UK to offer a new life-saving device.

The battery-operated ICD, called the Evera MRI SureScan, has special software to protect it from the scan's magnetic field and safeguards it against any interference. Patients fitted with one can have MRI scans on any part of their body, including the heart.

Doctors can reprogram the ICD wirelessly on a laptop before an MRI scan, so that the device is shielded from detecting abnormal heart rhythms during the time it is carried out. The matchbox-sized device costs £20,000, twice as much as traditional implants.

One of Harefield's first patients to have the new ICD fitted was Penelope Wybrow, 42, from Pinner in north-west London.

Penelope has cardiomyopathy, an inherited disease that causes the heart muscle to thicken and weaken over time, making it less able to maintain a normal rhythm and putting it at risk of stopping suddenly.

Dr Mark Mason, consultant cardiologist, implanted her device in April 2014 during a 45-minute procedure that was carried out under local anaesthetic.

Dr Mason said: "This device means patients can undergo MRI scans, which are the now the gold standard for diagnosing life-threatening or disabling conditions such as spinal problems.

"Thousands were denied these scans before, which led to delays in diagnosis and treatment."

Penelope said: "I feel I could live forever now! My new pacemaker has given me complete peace of mind. Before, I was scared of taking any exercise or even picking something up – I couldn't live my life to the full.

"But this is like having my own personal paramedic, which will respond faster than an ambulance and restart my heart."

Penelope Wybrow was one of Harefield's first patients to have the new ICD fitted

Dr Mark Mason, consultant cardiologist

we share our knowledge

We believe in sharing what we know through teaching, so that what we learn can help patients everywhere.

The Trust's commitment to sharing knowledge and expertise spans local, national and international initiatives. The high priority that is placed on education and training reflects a very real responsibility to invest in the next generation of cardiovascular and respiratory clinicians, and the Trust continues to enjoy a sound reputation for the provision of postgraduate programmes.

Our clinical teams share their knowledge at conferences and training events around the world, and clinicians wishing to specialise in heart or lung conditions are invited to take up fellowships to work alongside established experts at the Trust. More recently, digital technology has provided a valuable new teaching platform to reach a global audience.

As a specialist Trust, our experts also have an important role to play in helping to establish complex procedures within mainstream clinical practice.

Over recent years investment in our facilities has enabled teams at both sites to expand their teaching provision. Students from around the globe are attracted to Harefield Hospital's STaR Centre. The centre promotes expert patient care by inviting students to train with Royal Brompton's and Harefield's cardiovascular clinicians to develop professional capabilities, such as the management of medical emergencies, proficiency in invasive procedures and surgery, and effective communication and team work, in a safe, learning environment.

Royal Brompton Hospital's state-of-the-art Clinical Skills and Simulation Centre is a collaboration between Royal Brompton and The Royal Marsden Hospital which focuses on clinical skills training for staff and other healthcare professionals. Clinical teams receive training in complex procedures and crisis management in the simulation suite, and learn new surgical techniques in the wet lab.

Also at Royal Brompton, the Simulated interPRofessional Team Training (SPRinT) programme has been based on the paediatric intensive care unit since 2008. Internationally renowned and award-winning, SPRinT uses in-situ simulation to provide the multidisciplinary team involved in patient care with insight into human factors that influence personal performance, emphasising team performance while rehearsing the management of rarely occurring critical events.

The team is actively involved in educational committees of the Royal College of Paediatrics and Child Health, the Paediatric Intensive Care Society, and the International Pediatric Simulation Society.

First paediatric cardiology study day

In spring 2014, Trust consultants led by Dr Salim Jivanji, paediatric cardiology specialist registrar, held a well attended paediatric cardiology study day, which covered a range of topics

“The high priority that is placed on education and training reflects a very real responsibility to invest in the next generation of cardiovascular and respiratory clinicians.”

A GP tries out a spirometry test, supervised by respiratory physiologist, Peter Dickel

including fetal cardiology, inherited cardiac conditions, and paediatric cardiac surgery. The theme of the day was "the future", and delegates were given a valuable insight into new developments in the specialty.

A highlight of the day was the keynote lecture on "50 years of cardiac surgery", given by Professor Jane Somerville, former consultant cardiologist at Royal Brompton and recognised expert in congenital heart disease. Dr Jivanji commented: "It was a really well attended day and we had some excellent feedback from those attending. We hope to establish the conference as an annual event."

Trust is praised for making patient safety a priority

The Trust has a strong record in patient safety. Performance is monitored continuously, and openness and transparency is encouraged from all staff.

The Trust is committed to "Sign up to Safety", a national initiative hosted by NHS England with the aim of delivering harm-free care to every patient and halving avoidable harm over the next three years.

In April 2014, an inaugural symposium "Improving Quality and Safety in Acute Cardiac Care" was held in conjunction with Liverpool Heart and Chest Hospital NHS Foundation Trust and funded by the Health Foundation.

Over 100 delegates attended the event from organisations including Great Ormond Street Hospital for Children, Papworth Hospital and Nottingham University Hospitals. The sessions focused on human factors, in particular clinical leadership and teamwork, in the context of acute cardiac care, and explored how patient safety in healthcare could translate advances made both in the military and the aviation industry. Military personnel with experience at Camp Bastion discussed how the NHS might adopt and adapt approaches used by the armed forces to manage risk in high pressure environments, and similar examples were discussed from the airline industry. The symposium, the first of its kind internationally, dovetails with a major initiative at the Trust to build capacity and capability in understanding human factors in healthcare. A multidisciplinary faculty has been developed to offer monthly courses at both sites, to better understand the complexities of safe care delivery.

Professor Lord Darzi, Paul Hamlyn Chair of Surgery at Imperial College London and Honorary Consultant Surgeon at Imperial College Hospital NHS Trust (who led a national review of the NHS

A packed auditorium for Lord Darzi's keynote address

and is author of the report: "High quality care for all"), gave the keynote address. In his speech he praised the Trust for hosting the first symposium focusing specifically on acute cardiac care and stressed patient safety must remain a priority.

GPs attend respiratory study day

A GP study day to discuss common respiratory conditions was held at Harefield Hospital as part of a regular programme of events for primary care teams. Several consultants and other healthcare professionals gave presentations on their specialist area, and provided updates on recent advances in the diagnosis and management of common lung conditions and lung cancer.

Delegates took part in a practical spirometry session to measure lung function. Peter Dickel, respiratory physiologist, explained: "Most GP surgeries will have spirometers but they may not be used very often. This session was a bit of a trouble-shooting exercise to help make the GPs aware of what they should be looking for in the results."

Dr Will Man, consultant in respiratory medicine, who discussed pulmonary rehabilitation at the event, said: "The aim of the day was to discuss common respiratory conditions that GPs may see and to give them some guidance about referrals to a specialist centre like Harefield. Those attending were really engaged in the presentations and discussions and very positive about the services and facilities we offer. We hope to repeat the study day next year."

Professor Mike Polkey (fourth from left) on his visit to the COPD clinic in Guangzhou, China

Trust staff share expertise on visit to China

In January 2015, respiratory consultant, Professor Mike Polkey, and physiotherapist, Bhavin Mehta, travelled to China to help set up a new study to compare pulmonary rehabilitation with Tai Chi in helping to improve the quality of life for patients with lung disease (Tai Chi is a traditional Chinese form of exercise, originally developed as a martial art, which combines deep breathing with slow and gentle movements). The Chinese study is co-ordinated at the key state laboratory in Guangzhou, South China, and involves 120 patients with COPD, a term used to describe a number of respiratory conditions, including emphysema and chronic bronchitis.

Professor Polkey said: "We were surprised to find that a large number of patients in China with COPD go undiagnosed or untreated and currently, neither pulmonary rehabilitation nor Tai Chi are used to treat it. Although pulmonary rehabilitation has proven benefits, the study may show Tai Chi to be just as effective, and if so, potentially a more accepted form of treatment to develop in the country."

Professor Polkey will return to China at the end of the study to assess the results.

Paediatric nurses from Hong Kong visit Royal Brompton for observational training

In July 2014, the Trust responded to a request made by representatives of a Hospital Authority in Hong Kong, to share good practice and develop an annual overseas scholarship programme for clinical leaders in paediatric cardiothoracic nursing. A new children's hospital is currently under construction and the scholarship programme will support nursing development in the region.

In 2015, two experienced cardiac paediatric nurses joined the multidisciplinary team on Royal Brompton's children's unit and paediatric intensive care unit (PICU).

Their remit was to:

- Garner new knowledge in surgical and clinical paediatric cardiac care.
- Understand the patient pathway for paediatric heart surgery and cardiac catheter services.
- Acquire information on the design and delivery of the nurse preceptorship programme (whereby newly qualified nurses receive support and development during their first 12 months).
- Observe the multidisciplinary approach of congenital heart disease care.

- Understand the role of the community nursing service for children with heart problems.

The nurses also observed the award-winning work of the simulated paediatric resuscitation team (SPRinT).

Transforming the education of doctors around the world

In April 2015, experts at the Trust published an interactive grand round in collaboration with The Lancet Respiratory Medicine. This was the first in a series and the collaboration will see several cases about different respiratory diseases highlighted.

The interactive educational tool, available on The Lancet's website, mimics the highly-regarded grand round meetings, commonly held by international teaching hospitals as part of their educational programmes. Featuring a fictional case study, it poses a series of questions about the diagnosis and treatment of a complex case.

The first interactive grand round was led by Mr Eric Lim, consultant thoracic surgeon, with contributions from Professor Andrew Nicholson, consultant histopathologist, Dr Simon Padley, consultant radiologist, and Dr Sanjay Popat, consultant medical oncologist from The Royal Marsden Hospital, who all provided audio interviews, and appropriate X-rays and photographs.

Commenting on the partnership with the Lancet, Mr Lim said: "We are delighted to be spearheading this initiative by partnering with the leading scientific journal in the field. It underscores the reputation of the Trust as an internationally recognised centre of excellence for managing respiratory diseases."

Jo Szram, director of medical education, added: "The Lancet's digital platform offers us a valuable and highly efficient channel to reach clinicians and medical students worldwide, expanding our influence around the globe."

Asthma service shares knowledge

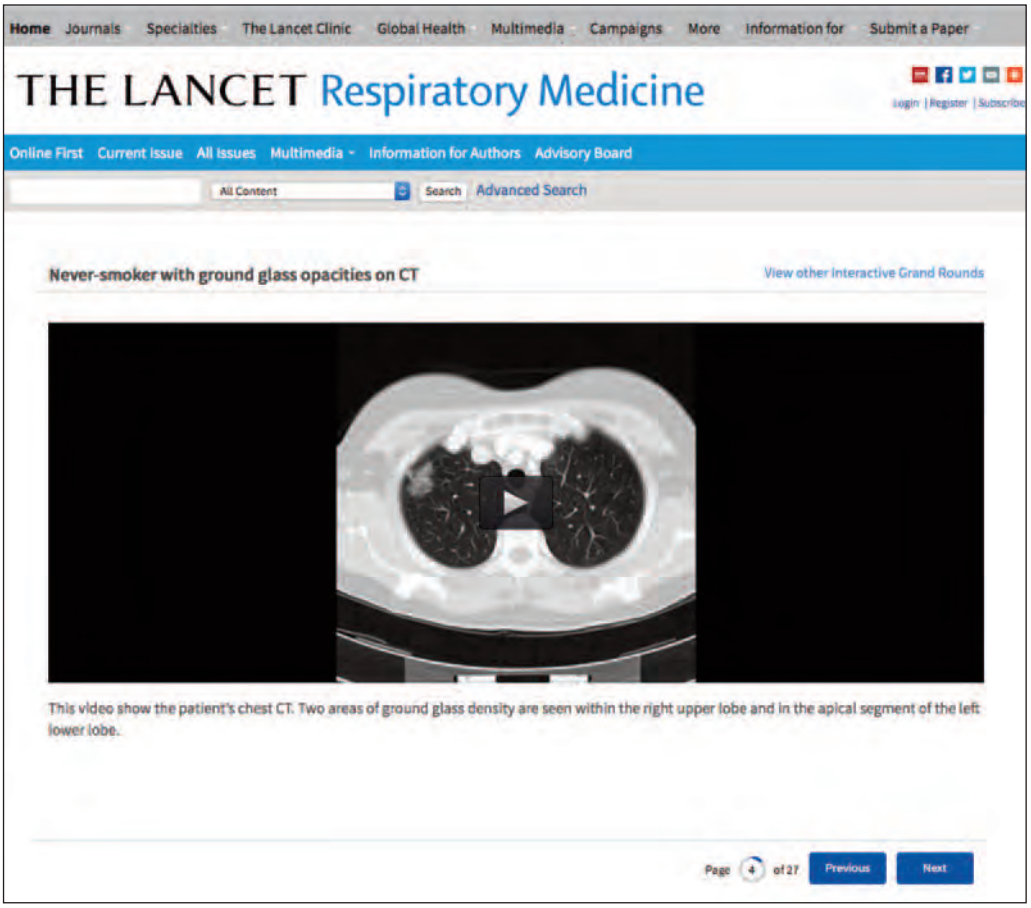
The Trust's asthma teams hosted two study days in spring 2015.

Clinical teams from more than 20 referring trusts attended the first meeting, which focused on severe asthma in children. Dysfunctional breathing and advances in research were two of the topics discussed.

A second study day for occupational health advisors covered assessment and management of occupational asthma. During the day delegates were shown how inhalation challenge tests are conducted (recreating a work environment and monitoring patients' reactions to allergens).

Feedback from both days was extremely positive, with the quality of information rated as good or excellent by all those attending.

A view of the interactive educational tool, available on The Lancet's website



> We are delighted to be spearheading this initiative by partnering with the leading scientific journal in the field.

Mateusz Kolecki (second from right), a medical student visiting from Poland, observes Dr Jo Szram (left), consultant physician and director of medical education, in a clinic

Dr Szram said: "We treat more children and adults with severe asthma than anywhere else in the country, and lead Europe in the assessment of work-related asthma, so these study days offer a valuable opportunity to raise awareness of our services."

Researchers inspire the next generation

Researchers from the cardiovascular BRU were invited to share their expertise and career advice with young visitors at the science, technology and innovation festival, Technopop, at the end of October 2014.

Consultant cardiologists, Dr Sanjay Prasad and Dr Sonya Babu-Narayan, and principal physicist, Dr Jennifer Keegan, took part in sessions on sports science and the human body during the four-week festival.

Dr Prasad discussed the effects of exercise on the heart and the importance of cardiac screening, while Dr Babu-Narayan and Dr Keegan considered future careers in the health sector.

First pain team in Rwanda

In November 2014, Dr Sian Jaggar, consultant anaesthetist, and Rachel Anderson, clinical nurse specialist in pain management, visited Kigali, Rwanda, to help establish the country's first pain team. The visit was part of a project organised by the charity SPIN (Specialists in Pain International Network) to help clinicians and paramedics in developing countries improve their pain management techniques.

Dr Jaggar explained: "Rachel and I presented at conferences in Kigali and Nairobi in 2013 and were asked to return to develop acute pain services at Kigali Military Hospital. It was such a valuable experience. Even though we went to teach, we certainly learnt a lot too. We're hoping that, with the help of SPIN, we'll be able to return to Kigali and have some of their specialists over to visit us."

"Pain champions" were identified within the nursing team at the hospital in Kigali and were taught how to assess and treat pain, using the drugs available locally. The pain champions then cascaded their learning to other clinical teams.

Success at transplant congress

A multidisciplinary team from Harefield Hospital was invited to present at the 11th International Congress on Lung Transplantation in Paris at the end of September 2014.

Harefield was the most represented centre at the event, which was attended by delegates from around the world. The team had seven abstracts and one poster accepted, four of which were by allied health professionals attending the congress for the first time.

Dr Melissa Sanchez, clinical psychologist and one of the presenters, said: "The presentations were a great success and this was the first time we have had so much representation from allied health professionals alongside medical and surgical colleagues."

Allan Seraj, practice educator, with student nurses

awards and recognition

Many Trust experts hold key positions in professional associations, colleges and societies and act as advisors to government departments and arms-length bodies. They travel widely, giving lectures and presenting at national and international conferences. Every year, a number of them gain particular recognition for their work. Some noteworthy achievements during 2014/15 include:

Professor of cardiology and director of the NIHR Royal Brompton Cardiovascular Biomedical Research Unit, **Dudley Pennell**, was elected to the Fellowship of the Academy of Medical Sciences (a) in April 2014. The prestigious fellowship is given in recognition of exceptional contributions to the advancement of medical science. Professor Pennell is a world-leading expert in cardiac magnetic resonance (CMR) imaging and has been influential in promoting the use of CMR in the clinical diagnosis and management of cardiac disease, both in the UK and across the world.

Mr Babulal Sethia

Professor Dudley Pennell

Mr Babulal Sethia, consultant congenital heart surgeon, was appointed president of The Royal Society of Medicine (RSM) in July 2014. During his three-year presidency, Mr Sethia aims to build on the RSM's cross-disciplinary work and focus on developing partnerships with other healthcare and educational organisations. Mr Sethia, who has been a consultant cardiac surgeon at Royal Brompton since 1999, is widely published as an international expert on congenital heart disease in children and adults, and regularly lectures to clinicians all over the world.

Professor Andrew Bush, consultant paediatric chest physician, was awarded the 2014 Lifetime Achievement Award by the European Respiratory Society's (ERS) Paediatric Assembly at the 24th International Congress of the ERS in Munich, Germany. Professor Bush also received an Honorary Lifetime Fellowship from the South African Thoracic Society in June 2014. The fellowship was in recognition of his contribution to respiratory medicine in South Africa.

Professor Andrew Bush

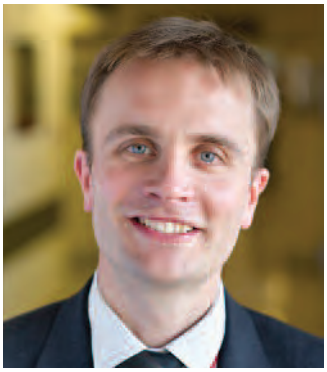
Dr Isabel Skypala, consultant dietitian and clinical lead for food allergy, was honoured with the prestigious William Frankland award from the British Society of Allergy and Clinical Immunology (BSACI) for her outstanding service in the field of clinical allergy. She is the first non-medical recipient of this award. Dr Skypala set up the dedicated adult food allergy clinics at Royal Brompton in 2007. The clinics are a one-stop shop for food allergy diagnosis, with a gold standard oral food challenge for patients whom allergy history and tests are inconclusive. The clinics were the first of their kind in the UK.

Dr Isabel Skypala

In April 2015, Royal Brompton consultant **Dr Gillian Halley**, was named National Innovator of the Year at the National NHS Leadership Recognition awards. Dr Halley, who has pioneered the Trust's unique web-based Hospital to Home pathway, was presented with the award for her work on developing the service, which is designed to enable children who need long-term ventilation to be safely discharged from hospital. She had previously been named London NHS Innovator of the Year at a ceremony in November 2014.

Dr Gillian Halley

Dr Nicholas Simmonds, consultant respiratory physician, won an award at an NIHR event in February 2015 for first European / global recruitment of a patient into an international study. Dr Simmonds' research is looking at a new drug treatment for cystic fibrosis.

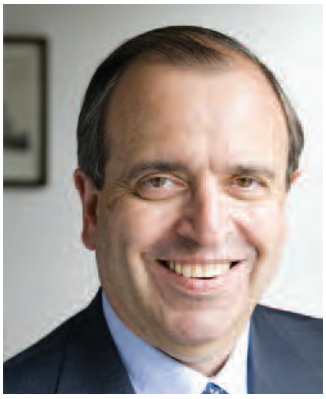


Dr Nicholas Simmonds

Dr Amelia Shoemark, senior clinical scientist in primary ciliary dyskinesia (PCD), was awarded an NIHR healthcare science post-doctoral fellowship for her work investigating "New diagnostic tools for PCD". PCD is an inherited condition where cilia, which are tiny moving structures that line the airways, ears and sinuses, are unable to function.

Dr Amelia Shoemark

In March 2015, the Health Service Journal (HSJ) recognised chief executive, **Robert Bell**, as one of the most influential figures within UK healthcare. Noting his 10 years' service at the Trust, the nomination recognised some of the challenges he has faced, whilst celebrating his many achievements, making particular reference to the sense of community he instils in staff.



Mr Robert Bell

The Trust's **pain management team** was among five nominees recognised at pharmaceutical company Grunenthal's national pain awards in Glasgow in April 2015. The team was awarded a £5,000 grant to continue its research into managing the pain associated with cardiac device implantation. The grant has been put towards developing local and national protocols to help clinical teams manage the pain that patients experience after having cardiac devices such as pacemakers, defibrillators and cardiac resynchronisation therapy (CRT), fitted.

The award-winning pain management team

our profile in the media

A strong and positive presence in the media can make a valuable contribution to increasing awareness of our services and expertise. The Trust's communications team works with many diverse publications and media outlets each year, reaching millions of people around the world. Here is a small selection of recent coverage.

MAY 2014

A feature in the Daily Mail focused on the work of Harefield Hospital's senior echo cardiology co-ordinator, Julie Donovan, after she was nominated for a national "Health Hero" award by a transplant patient. The story included a range of examples of Julie going the extra mile for patients and she was described in the piece as a "hospital fairy godmother". Patients and relatives explained how Julie gave them emotional support and comfort, while also making them feel less alone. The mother of one patient described how Julie had provided reassurance whilst her teenage son was having heart surgery, saying: "Julie made us feel, through her quiet confidence, that everything was going to be all right."

JUNE 2014

Professor Martin Cowie, consultant cardiologist at Royal Brompton, shared his expertise on implantable cardioverter defibrillators (ICDs) on BBC1's Breakfast programme in June. Professor Cowie explained that ICDs can be lifesaving for patients at risk of dangerously abnormal heart rhythms. He was also featured on BBC London News about the Trust's contribution to new National Institute for Health and Care Excellence (NICE) guidelines, which recommended that ICDs should be available to more NHS patients. The BBC report described the Trust as "the leading NHS centre for cardiorespiratory research" and included an interview with a Harefield patient whose life had been saved by an ICD.

AUGUST 2014

The Mail on Sunday reported that the Trust's use of revolutionary technology had enabled more patients to have heart transplants at Harefield Hospital. During transit between donor and recipient, the new Organ Care System adopted by Harefield clinicians, simulates conditions of the human body, pumping oxygenated blood inside the donor heart. This increases the time the heart can be maintained in a suitable state for transplant compared with the conventional method of ice preservation, meaning donor hearts can be retrieved from further afield than previously. Mr André Simon, director of transplantation, said the technology had become the "gold standard" for organ retrieval at Harefield.

Prime Minister David Cameron praised the: "world-class care" at Royal Brompton, describing the expertise of doctors and nurses as "second to none" in a front-page story in the Sun on Sunday. The Prime Minister was referring to three-year-old Hala al Massri's journey from Gaza for life-saving heart surgery at Royal Brompton, which was organised by the charity Chain of Hope. Hala's story was widely reported and featured extensively on Channel 4 News, with presenter Krishnan Guru-Murthy visiting the little girl and interviewing surgeon, Professor Francois Lacour-Gayet, about her successful procedure. In an ITV News London follow-up report, Professor Lacour-Gayet explained that Hala should be able to live a normal life following the correction of her heart defect.

NOVEMBER 2014

An innovative and life-changing treatment for emphysema, carried out as part of a clinical trial at Royal Brompton Hospital, was showcased on BBC1's The One Show. Dr Pallav Shah, consultant physician in respiratory medicine, explained that inserting coils into the lungs through a bronchoscope can improve lung capacity by restoring the spring-like tension in damaged airways. A film of Dr Shah carrying out the procedure was included in the piece.

JANUARY 2015

The world's first implant of a new replacement heart valve at Royal Brompton

was featured in the Daily Mail in January. Mrs Margaret Mann had the minimally-invasive procedure to replace a leaking mitral valve after she was not deemed suitable for conventional surgery. Mrs Mann described the new lease of life that the Tendyne transcatheter mitral valve had given her. Consultant cardiac surgeon, Mr Neil Moat, provided an expert clinical view and explained that if clinical trials were successful, the new valve could be approved for more widespread use.

FEBRUARY 2015

The Trust's specialist expertise was illustrated in The Mail on Sunday in February by the case of stroke patient, Paul Scoble, who was transferred to Royal Brompton after doctors at his local hospital had told relatives nothing more could be done for him. The newspaper stated that Mr Scoble "owed his life to the care he received at Royal Brompton" after undergoing complex surgery to replace leaking heart valves.

MARCH 2015

BBC political editor Nick Robinson's praise for the care he received at Royal Brompton after undergoing surgery for lung cancer, was widely covered in the media. Mr Robinson explained that his operation, carried out by consultant thoracic surgeon, Mr Eric Lim, had been a success, and on BBC Radio 2 described Mr Lim as his "excellent surgeon at Royal Brompton".

In its centenary year, Harefield Hospital's reputation as one of the world's leading transplant centres was celebrated across a number of media channels. In The Independent, "A century of saving lives at Harefield Hospital", by double-lung transplant patient, Sharon Brennan, described the "everyday miracles" that happen at Harefield. Mr Fabio De Robertis, transplant surgeon, spoke of the groundbreaking work at Harefield, and colleagues explained how the hospital's clinical teams have pioneered the use of new treatments and technology over the years.

The wife of England and Arsenal footballer, Theo Walcott, described the couple's gratitude to Royal Brompton staff after their newborn son was treated for a heart complaint. In an interview in Hello! magazine that was widely reported in several other national newspapers including the Daily Mail and Daily Mirror, Melanie Walcott described her son's surgery as "the longest two and a half hours of our lives but the staff were fantastic."

Harefield Hospital transplant surgeon, Mr Fabio De Robertis, described his "unexpected honour" after heart transplant patient, Andrew Britton, named his firstborn after him in a story published by several national newspapers in November. ITV's Good Morning Britain interviewed Mr De Robertis via a studio link to Harefield. Andrew and his wife, Lauren, explained they had named their son "after the surgeon who saved Andrew's life". The coverage included numerous references to how grateful the Britton family was to the transplant team. Andrew and Lauren also appeared on BBC1 Breakfast, discussing Harefield's expertise in fitting left ventricular assist devices (LVADs). LVADs are mechanical heart pumps primarily used to extend patients' lives while they wait for a transplant.

Mr Fabio De Robertis, transplant surgeon (left), with Andrew Britton and his wife, Lauren, who named their firstborn child after Fabio

our charity

Royal Brompton & Harefield Hospitals Charity raises money to support the Trust's pioneering work in heart and lung diagnosis, treatment and research in areas that lie outside NHS budgets.

What the Charity funds

Since April 2012, the Charity has operated independently of the NHS to help realise ambitious projects for both hospitals. It is overseen by a board of trustees, under the chairmanship of Richard Hunting CBE, with day-to-day operations managed by chief executive, Gill Raikes MBE.

Every year, the Charity runs two main appeals to support the work of Royal Brompton and Harefield hospitals:

Royal Brompton Hybrid Theatre Appeal

Fundraising continued towards the Charity's goal of raising £4.5m for the £6.3m hybrid theatre project at Royal Brompton Hospital. The hybrid theatre will make it possible to carry out a combination of medical procedures such as a CT scan, a non-invasive procedure and heart surgery in the same space, at the same time, rather than with multiple admissions to either catheter labs or theatres. Treating patients less invasively and in a shorter time means recovery is quicker and scarring is reduced.

Harefield Heart and Lung Appeal

In April 2014, the Charity re-launched its Harefield Heart and Lung Appeal to raise funds for seven Organ Care System kits, which are used to transport donated organs, and to build a new echocardiography room.

By April of this year, the Charity had beaten its fundraising target, allowing Harefield to buy 11 life-saving OCS kits and enabling work to start on a new scanning facility.

Patient Amenities Fund

Every year, the charity allocates £100,000 to improve how patients experience care in our hospitals. Staff are encouraged to put forward suggestions as to how the money can be best invested. Examples of recent projects are: refurbishing a waiting room, buying new high-spec wheelchairs and providing patients with iPads so they can keep in touch with friends and relatives during their stay.

rb&hArts

Now in its 12th year, rb&hArts engages with approximately over 3,500 people annually and relies on Charity funding to help deliver a variety of creative activities. In 2014/15, rb&hArts' work focused on exhibitions, site-specific commissions, a musician-in-residence, and a range of participatory workshops and performances in public spaces and wards.

Celebrating a very special year

In 2015, the Charity, in collaboration with the Trust, developed a programme of exciting events to celebrate the 100th anniversary of Harefield Hospital. From its origins as an ANZAC military hospital during the First World War, the hospital has grown into a world-renowned specialist centre for the treatment of heart and lung diseases.

As a fitting legacy, the Charity is launching a new centenary appeal in 2015/16 to raise funds towards an extended intensive therapy unit, which means experts at the hospital will be able to treat a greater number of seriously ill patients.

Fundraising activities

The Charity raises funds through a diverse range of activities. As well as deriving income from a property portfolio, individuals and corporate donations are encouraged, applications are made to charitable trusts, foundations and grant-making bodies and a programme of fundraising events is organised throughout the year. Supporters are also encouraged to organise their own events and to take on sponsored challenges.

For more information, visit www.rbhcharity.org

> By April the Charity had beaten its target, allowing Harefield to buy 11 life-saving OCS kits

With thanks to:

- Kathryn Dixon, and Rosie and Philip Pope for organising "100 Hearts" to raise £154,000 for Harefield's transplant unit
- Team Macy, who have tirelessly fundraised for the Charity since 2012 and raised awareness of congenital heart disease
- The Knights of St. Columba who raised £6,772 through a Charity of the Year agreement in 2014
- Tara Smith, who was born with cystic fibrosis and had a double lung transplant at Harefield; just six months later she raised money for the Charity by climbing Mount Snowdon
- Lewis Silkin LLP for raising £15,000 in memory of their staff member, James Levy, who was treated at Royal Brompton Hospital throughout his life
- Hitachi Capital for donations and sponsorship amounting to £30,000 in recognition of the treatment given to their staff member, Vanessa Bradley, at Harefield Hospital
- The Fidelity Foundation and The Geoff & Fiona Squire Foundation for their generous gifts towards the Hybrid Theatre Appeal
- Heritage Lottery Fund for supporting Harefield's centenary celebrations
- Crescent Building Supplies for their sponsorship and ongoing support of Harefield Hospital
- The Royal Brompton and Harefield fundraising committees

An example of a hybrid theatre (Manchester Royal Infirmary)

Double lung transplant patient, Tara Smith, raised over £8,000 climbing Mount Snowdon

The Charity has purchased 11 Organ Care Systems for Harefield Hospital

Rob Brydon, Angus Deayton and a host of other celebrities joined transplant patient, Will Pope, to raise funds for Organ Care Systems (pictured) and to support Harefield's transplant programme

rb&hArts

rb&hArts, with the support of Royal Brompton & Harefield Hospitals Charity, brings all forms of the arts to Royal Brompton & Harefield NHS Foundation Trust.

Arts in health

Over the past 12 years we have established a world-class and highly innovative hospital arts programme, designed to improve the wellbeing of patients, staff and the diverse communities we serve.

Supporting patients from all over the country with heart and lung disease, we have a national reach, and work with over 3,500 people annually. We know that people who take part in our activities tend not to engage with the arts locally – and that the majority of our participants experience arts for the first time while they are in one of our hospitals.

Our year-round creative programme is funded by Royal Brompton & Harefield Hospitals Charity and a variety of charitable trusts and donations. It offers a wide range of participatory activities, performances in public areas and wards, as well as temporary exhibitions across the hospitals. We support the Trust's capital projects team to implement integrated artworks (for example ceiling art, flooring and wall vinyls) and also manage an art collection (of over 1,000 pieces), which are displayed for the benefit of patients, their visitors and staff.

Singing for Breathing continues to provide two weekly singing workshops for patients living with COPD. The workshops involve 35 people per week and approximately 650 in- and outpatients over the course of a year. A survey of 500 patients attending the singing workshops at Royal Brompton and Harefield found that 70 per cent of them felt markedly physically better after taking part. For example, one participant said: "My whole body feels so different just in one single session, from tension to relaxation. Something that medical intervention won't achieve!"

rb&hArts is committed to increasing opportunities for more patients to benefit from Singing for Breathing workshops. It is our ambition to introduce additional workshops next year.

Breath-etched copper plates by Jayne Wilton

Singing for Breathing

Working alongside a composer, curator, clinical research physiotherapist and three respiratory groups at Royal Brompton and Harefield hospitals, visual artist, Jayne Wilton, created new artworks to capture the usually unseen human breath.

The project was funded by Arts Council England and culminated in an exhibition of Jayne's work at Royal Brompton throughout autumn 2014. As part of the project, the Singing for Breathing groups worked with facilitator, Joanna Foster, to create a new composition, Did We Sing, which premiered during Jayne's exhibition.

The human breath captured in art by Jayne Wilton

100 years of Harefield

Throughout 2015, Harefield centenary is being marked by a series of events and activities supported by the Heritage Lottery Fund (HLF) and the Trust to celebrate the hospital's history over the last 100 years. An oral history project is capturing memories from a patient, staff and local community perspective, culminating in an exhibition in the Concert Hall, in autumn 2015.

A new quilt, retelling our 100-year story, has also been commissioned for permanent display on site.

Harefield Hospital in the early 20th century

Adrian Garratt, musician in residence ITU, HDU and transplant

Adrian Garratt, comedy violinist, has been in residency at Harefield Hospital, playing in the intensive therapy unit, high dependency unit and transplant unit for 12 months. His particular style, a mix of chat, comedy, improvisation and playing music has had a significant and positive impact in these wards.

As an experienced artist, familiar with working in complex healthcare situations, Adrian is unique among the many musicians we have chosen to play in the

hospitals over the years. He is not just a talented violinist, but someone who fully understands the role that the arts can play in stressful environments.

Music in hospitals transforms the patient experience, providing distraction, amusement and joy.

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