





Annual Review 2018









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Bu raporun Türkçe kopyası için lütfen komunikasyon bölümündeki communications team 'la görüsün. **editorial@rbht.nhs.uk, 020 7352 8121.**

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Introduction from the chair and chief executive



Baroness Sally Morgan - chair



Bob Bell - chief executive

It is with a great deal of personal pride that we present this annual review. It reflects a year that brought many achievements and some notable improvements in patient care.

Few NHS organisations can celebrate being at the forefront of medical innovation for over 175 years, but for our Trust, the responsibility to push boundaries and break new ground in treating heart and lung disease lies at our core.

Today we are the only NHS trust in the country

with a total artificial heart programme, and our cystic fibrosis experts are pioneering opportunities in remote digital care. You will read about both initiatives in this review, and many others.

In partnership with academic institutions, the pharmaceutical industry and device manufacturers, our teams work hard to harness new technology and deliver the very highest standards of patient care. This year alone over 2,000 patients were recruited to 200 research programmes that will contribute towards better patient care and outcomes, and our teams attracted more than £7.9 million in external grants for research.

The year has also seen significant advances in the way we deliver care as a result of a major transformational programme Trust-wide. The Darwin programme reviews how we provide our specialist services and through comprehensive engagement with staff and patients, ensures best practice becomes standard practice, identifies and removes inefficiencies, and in some cases completely redesigns the treatments we offer.

There have been some impressive milestones in the programme's first year of operation and the challenge set by Darwin to all teams has been embraced across the organisation.

A key area of focus has been on reducing the length of stay after procedures and getting patients back to their homes and families sooner.

So at Harefield Hospital cardiology patients can now have an invasive procedure, recover in a comfortable chair and go home the same day, thanks to an innovative new 'lounge' developed by our specialists. The cardiology lounge provides a quiet, comfortable space, where patients relax in lounge chairs as they recover from their procedure in the cardiac catheter laboratories.

Patients have been enthusiastic about the new lounge, with 100 per cent of those surveyed after their visit saying they were "very satisfied" with the service.

And at Royal Brompton Hospital the Squire Centre offers patients the chance to come in to hospital on the day of a procedure (such as angioplasty) rather than stay the night before.

The centre combines a pre-assessment clinic with a day-case unit, and almost two thirds of patients seen in the unit have been able to go home the same day, eliminating the need for any overnight stay at all. More than 90 per cent of patient feedback has been positive.

It is our focus on transforming and advancing treatment for patients with heart and lung disease that is the inspiration behind our planned collaboration with King's Health Partners¹ (page 9). Our clinical teams have been working together over the past 12 months to design a new approach which we think can revolutionise heart and lung care and research in the UK. We are working to redesign how we deliver services, research and education across the partnership and beyond - from services in the community, to specialist inpatient care, to laboratory-based research.

This year will see a major public consultation on our plans and we look forward to working with patients and staff on this bold and exciting partnership which has the potential to benefit up to 15 million children and adults in London and beyond. We look forward to updating you on our progress.

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Bob Bell

Baroness Sally Morgan

31 January 2019

¹ King's Health Partners comprises Guy's and St Thomas', King's College Hospital,

and South London and Maudsley NHS Foundation Trusts and King's College London University

About us



The Trust is a partnership of two hospitals – Royal Brompton in Chelsea, West London, and Harefield, near Uxbridge – which are each known throughout the world for their expertise, standard of care, and influential research.

As a specialist trust, we exclusively treat people with heart and lung disease – this means our doctors, nurses and other healthcare staff are experts in their chosen field, with many of them moving to us from around the world so that they can develop their skills even further.

Over the years our experts have been responsible for major medical breakthroughs including performing the first successful heart/lung transplant in Britain, implanting the first coronary stent, founding the largest centre for cystic fibrosis in the UK, and pioneering intricate heart surgery for newborn infants.

We carry out some of the most complex surgery, and offer some of the most sophisticated treatment that is available anywhere in the world. We treat patients from all over the UK and other countries, many of whom are unique in their medical needs, and demand for our services continues to grow year-on-year.

Our fetal cardiologists can perform scans at just 12 weeks, when a baby's heart valve is just over a millimetre in size, and our clinical teams regularly treat patients well into their 90s and help them maintain a good quality of life. By recruiting the best clinical and non-clinical staff and investing in their development, we maintain our position as the leading UK provider of respiratory care and a national leader in the specialist areas of paediatric cardiorespiratory care, congenital heart disease and cystic fibrosis.

We work closely with academic and industry partners to play a leading role in pushing forward the boundaries of medicine through research, and by sharing what we know through teaching, we can help patients everywhere.

Our values (page 6) guide and support every decision we make to ensure our care is safe, of the highest quality and – crucially – available to everyone who needs it.

Our vision and values

Our vision is to be the UK's leading specialist centre for heart and lung disease, developing services through research and clinical practice to improve the health of people across the world.



The Trust will achieve this vision by:

- improving patient safety and satisfaction
- providing world class specialist treatments that others cannot offer
- bringing innovation to clinical practice through our research partnerships
- attracting, developing and retaining world class clinical leaders
- investing in services, technologies and facilities to support new service models at both sites.

We are supported in this by active patient and community groups who enthusiastically encourage and challenge us to deliver our goals.

Our values

At the heart of any organisation are its values: belief systems that are reflected in thought and behaviour. When values are successfully integrated throughout an organisation, the result is a shared outlook and consequent strength, from performance through the style of communications to the behaviour of employees.

Our values were developed by staff for staff. We have three core patient-facing values and four others which support them.

Our three core values are:

We care

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

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.

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 which can help us improve the care we offer.

And the following values support us in achieving them:

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.

We are responsible

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

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.

We share our knowledge

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

Performance and achievements



During 2017/18 we:

Cared for more than **200,000 patients** in our outpatient clinics.

Helped **11,670 adults** who have breathing problems caused by diseases such as COPD and severe asthma.

Recruited **2,284 patients** onto over 200 research programmes that will contribute towards better patient care and outcomes. 38,000 patients of all

Cared for nearly

recommendation score in the annual Friends and Family Test. Attracted more than **£7.9 million** in external grants for research.

Extended the intensive care unit at Harefield Hospital so that an extra **250 critically ill** patients can be treated each year. Carried out **99 transplant** procedures: our highest annual total to date.

nsive Were in the **top three** eld most highly cited n extra health research teams batients in England – with 862 ch year. papers published in scientific journals.

> Improved our environmental responsibility by reducing our carbon emissions by **13.76%** and energy consumption by 7.95%.

Launched a brand **new day case ward** for respiratory patients including those with asthma, interstitial lung disease and cystic

fibrosis (page 15).

Helped a patient spend Christmas with her family by implanting a total **artificial heart** (page 38). Completed an **£18 million** improvement programme at Harefield Hospital, transforming and futureproofing several areas of the hospital (page 40).

Invested in the **wellbeing** of our staff, appointing a freedom to speak up guardian and launching weekly wellbeing and yoga classes.

Maintained one of the fastest arrival to treatment times for UK heart attack patients – **23 minutes** compared with a national average of 56. Recorded a healthy **£75 million** financial surplus at year end, including £38 million of bonus payments from NHS England for exceeding our annual financial targets.

Annual Review 2018

Health secretary visits Royal Brompton

Jeremy Hunt, former secretary of state for health and social care, praised the Trust's commitment to transparency and ongoing improvement during a visit to Royal Brompton Hospital.

Rt Hon Jeremy Hunt gave a presentation

to staff about patient safety during one of the Trust's clinical governance days, which are regular days set aside for clinical staff to devote to study and knowledge sharing.

He was introduced by medical director Richard Grocott-Mason, who described the Trust's approach to patient safety, particularly human factors training, which was delivered to 1,000 members of staff by the end of 2018.

Jeremy Hunt, who was accompanied on the visit by Dr Liam Brennan, president of the Royal College of Anaesthetists, began his presentation by telling the stories of public campaigners who have lost loved ones in hospital to preventable causes. He told the audience: "It is an exceptionally good result that 90 per cent of your staff would recommend the care here. I was pleased to see in Richard's presentation - right at the top – was a point about getting the right safety culture."

Following the visit, Mr Hunt commented: "Staff at Royal Brompton are able to provide some of the NHS's best care to some of the country's sickest patients because of their open and determined approach to learning.

"I was delighted to join them and see first-hand how they share learning across their hospitals and use this to champion patient safety, an impressive approach which they've been pioneering for nearly a decade."

It is an exceptionally good result that **90 per cent** of your staff would recommend the care here.

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New partnership takes heart and lung care and research to a new level

In November 2017 it was announced that the Trust hopes to play a pivotal role in revolutionising services for heart and lung patients, with the creation of a new global centre of excellence for care and research in partnership with King's Health Partners (KHP).¹

Encompassing children's and adult clinical services, academic education and research, we have a united vision to create a global powerhouse for heart and lung medicine and research in London, providing the best possible patient care and experience. The partnership presents a unique opportunity to build a worldleading clinical-academic system which will transform the lives of millions of patients on a regional, national and international level.

Individually, our Trust, along with Guy's and St Thomas' and King's College London Foundation Trusts, have international reputations for excellence in research and clinical delivery. Together, working alongside the academic expertise of King's College London and other academic partners, we can build on these strengths to form one We will bring together world-leading specialist skills and expertise from across healthcare, academia and industry to create a globally-significant system of care that will deliver:

- Clinical services at the forefront of the 4th industrial revolution – leveraging the best of advances in technology, digital innovations and AI to deliver truly integrated patient pathways and preventative healthcare
- World leading translational research that delivers innovation from bench to bedside
- World class training and education attracting the best of global talent.

of the largest cardiovascular and respiratory institutes in the world. At the heart of our new system will be a collaboration of specialist services around the St Thomas' Hospital site near Westminster Bridge in London, which will bring together clinical, academic and industry expertise in a unique, world-leading hub. By coming together we will not only bring the best of each organisation - we will also create a unique model that will help address the challenges faced by healthcare providers across the country: fragmented care between organisations; challenges in recruiting and retaining key staff; and insufficient scale to develop true expertise in sub-specialties. We believe our partnership will be an exemplar for the way health needs to be delivered in the future.

In April 2018 our boards of directors approved a feasibility study which assessed the impact the collaboration could have on treatment, research and education, and scoped out the cost and affordability. NHS England now plans to run a public consultation on our proposals in summer 2019. We look forward to continuing our work with patients and staff, our referrers, local communities and regulators, to develop our vision into a dynamic and inspirational new system for the delivery of exceptional care and research for generations to come.

¹KHP comprises Guy's and St Thomas' NHS FT (GSTT), King's College Hospital (KCH), South London and Maudsley NHS FT (SLaM), and King's College London (KCL) university.

The Darwin programme

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Future-proofing our specialist care

During 2017/18 a Trust-wide transformation programme – the Darwin programme – was launched, with the single aim of protecting and future-proofing our world-leading services and research.

The Darwin programme is taking a comprehensive look at how we provide care across the Trust, with a view to identifying best practice and making it standard practice, driving innovation, and reducing any inefficiencies.

The name 'Darwin' was chosen by staff, and the programme is managed by a project team comprising staff on secondment from around the Trust, including areas such as theatres, nursing and pharmacy.

The end vision is a trust that uses the most modern, efficient and effective approaches to patient care and administration.

In its first year, the Darwin programme was embraced across

the organisation as an opportunity to change for the better and a number of successful initiatives have started to have a positive impact on patients' experiences of our care.

A key area of focus has been on reducing the length of stay after procedures and getting patients back to their homes and families sooner.

Harefield Heart Division: The cardiology lounge



Cardiology lounge patient Phillip Hamdorff discusses his aftercare with senior cardiac rehabilitation nurse Debbie Beach

Cardiology patients at Harefield

Hospital can now have an invasive procedure, recover in a comfortable chair and go home the same day, thanks to an innovative new 'lounge' developed by our specialists.

With limited beds available, planned procedures would sometimes be postponed to make room for emergencies arriving at Harefield's busy heart attack centre – so the cardiology team challenged themselves to find a more efficient way to treat elective (non-urgent) patients.

The cardiology lounge provides a quiet, comfortable space, where patients relax in lounge chairs as they recover from their procedure in the cardiac catheter laboratories (cath labs).

This frees up beds for those who really need them, and allows specialists to carry out straightforward procedures as day cases – with patients often arriving in the morning and going home shortly after lunchtime. Patients have been enthusiastic about the new lounge, with 100 per cent of those surveyed after their visit saying they were "very satisfied" with the service.

100 per cent of those surveyed

after their visit said they were "very satisfied" with the service.

Joseph Goff spent a day in the cardiology lounge recovering from his angioplasty procedure (where small tubes are guided into an artery near the heart to widen it and improve blood flow), and was pleased at the prospect of going home the same day.

He said: "I'm impressed. I came in for an investigation, but they saw that they could do something there and then, and they did, so I'm pleased about that. And sitting here is quite relaxing; I think you would feel more pressured in a 'hospital' arrangement, in a bed."

Philip Hamdorff has experience of both approaches; he was admitted as an emergency in November and cared for on a ward after he learned the 'indigestion' he had been suffering was in fact a heart attack. He returned for a follow up procedure in December and preferred the cardiology lounge.

He said: "This is the way to go. We're 'walking wounded' and don't need to be sitting in bed, so the beds can go to those who don't recover well and need more intensive nursing.

"I can't fault the service I've had here. We're so lucky to have the NHS, and ideas like this that help the service by saving money and freeing up beds are brilliant." >>

The Darwin programme

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The concept builds on the 'radial lounge' model used in some hospitals to provide same-day recovery for simple coronary procedures performed through the radial artery, a blood vessel in the wrist. But Harefield gives a much wider range of patients the opportunity to be treated as a day case: from those who have had a stent, to those having pacemakers or intra-cardiac defibrillators (small devices that regulate the heartbeat) fitted.

Dr Vasileios Panoulas, consultant interventional cardiologist and clinical lead for the project, explained the benefits this brings to patients: "The priority is keeping patients safe while improving their experience.

"They can now come in, have their procedure, recover in a nice comfortable environment and get home early in the evening. We have reduced our waiting times because this enables us to do more elective procedures. The success of this project is thanks to our staff, who have shown an unbelievable commitment and enthusiasm."

While improving patient care is the top priority, the new lounge is already delivering efficiency savings, according to cath labs manager Sumesh Thiruthalil.

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The priority is keeping patients safe while improving their experience.

They can now come in, have their procedure, recover in a nice comfortable environment and get home early in the evening.

"



Dr Vasileios Panoulas

He said: "The only expenditure was buying reclining chairs, and we're looking at more than half a million pounds of in-year savings.

"In the near future we want to expand capacity and look at how we can schedule our patients so we can do both morning and afternoon procedures, enabling us to treat more patients, in less time than ever before."





Invasive cardiology

services are more efficient and patient-friendly than ever before, thanks to an increase in the number of patients being treated as day cases.

Royal Brompton's Squire Centre opened in March 2018 and offers patients the chance to come in to hospital on the day of an invasive procedure (such as angioplasty) rather than stay the night before.

The centre combines a pre-assessment clinic with a day case unit. Patients have their pre-assessment appointment with a nurse practitioner two weeks before their procedure, to see if they are suitable for a same-day admission. Suitable patients then arrive at the unit on the day of their procedure before being taken to the in-house cath lab, then recover in a dedicated area with trolleys and lounge chairs.

Almost two-thirds of patients seen in the unit have been able to go home the same day, eliminating the need for any overnight stay at all. More than 90 per cent of patient feedback so far has been positive.

Annette Sprules, cardiology service improvement manager, explained the benefits: "Patients have lives, families and jobs, and most prefer not to have a prolonged hospital stay. This unit Healthcare assistant Anna Krawczyk and a patient in the Squire Centre waiting area

gives us the option to treat suitable patients as day cases, which is more convenient for them.

"It also brings a number of small but important changes to the experience of coming to hospital – from being able to keep your own clothes on throughout your visit, to being able to relax in the lounge and watch TV while waiting for your lift home."

The new centre comprises a reception and waiting area, clinic rooms, cath lab and MRI, large recovery area and patient lounge.

The refurbishment, which cost nearly half a million pounds, was part-funded by the Royal Brompton & Harefield Hospitals Charity, including a significant donation from Geoff and Fiona Squire, after whom the centre is named.

Charity chief executive Gill Raikes said: "One of the key reasons our donors support this Trust is because of the many innovative things it is doing to improve patient care, and the initiatives that make up the Darwin programme are fine examples of this.

"We're delighted to have been able to help the Trust's teams expand their day case facilities at Royal Brompton, as this will help them see more patients, and ultimately to save more lives."

New "one stop shop" is more convenient for patients with lung disease



Patient George Coldrake discusses his care plan with ILD clinical nurse specialist Charlotte Hogben

New interstitial lung disease (ILD)

patients at Royal Brompton can now get tested, diagnosed and given a comprehensive treatment plan – all in a single day.

Previously, patients needed to attend multiple clinics or be admitted for a three-night stay, to undergo the tests needed for a clear diagnosis.

But a wholesale clinic reorganisation, led by consultants Dr Peter George and Professor Athol Wells, means the team can now complete all diagnostics in one day – improving the experience and eliminating overnight stays for most patients.



Dr Peter George

Dr George explained: "ILD patients are often breathless and may have limited mobility, so it is inconvenient for them to make multiple trips to hospital. At the same time it is not practical for us to use inpatient beds for patients who are undergoing tests."

The clinics were redesigned around patients – the outpatient appointment starts in the morning with tests including lung function, bloods, CT scan and ECG (where it is necessary to check a person's heart rhythm). The results are reviewed by a consultant, who meets the patient to discuss their diagnosis, and most are able to go home with a treatment plan in place by lunchtime.

Professor Wells said: "It's a simple principle but it takes a great deal of work to ensure we have the personnel, the clinic space and admin, and the imaging and laboratory support, to create a seamless visit for patients. I would like to thank everyone involved in this project for their role in making this possible."

George Coldrake, 68, a retired brewer from Watford who likes to spend time travelling, playing golf, and looking after his grandchildren, was pleased that the visit was quicker than expected.

He said: "Regular trips to Royal Brompton would have been a lot more inconvenient than just having to come in for one day.

"It was very efficient. I got here at 8.10am and I finished everything at about 11.15am – so just about three hours. I've had a blood test, CT scan and breathing test, and haven't had to wait much in between. It's a lot better this way.

"I knew everything in advance so I was prepared, which was good. It's been a lot quicker than I had thought and all the people have been very pleasant. I've been very impressed by it all."

Currently, the one stop shop approach is for new ILD patients, but the team is investigating how other clinics could be similarly streamlined. The new way of working will bring its own financial benefits in reduced ILD admissions alone, with significant savings expected when the method is rolled out to other conditions such as asthma and allergies.

Our specialist heart services in 2018

Clinical teams at Royal Brompton and Harefield hospitals are world leaders in the care of serious and complex heart conditions, including those present at birth, inherited or acquired.

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Royal Brompton hailed as "stand-out area" of CHD research by European Society of Cardiology

Royal Brompton's cardiac expertise was profiled in a leading European cardiology journal this year, and was described as a 'centre of excellence' with 'stand-out' research.

The September 2017 edition of the European Heart Journal, published by the European Society of Cardiology and one of the leading cardiology publications in the world, featured a profile of Royal Brompton's unit.

The report describes the hospital as a centre that "prides itself on leading innovative research whilst providing first class care to patients."

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hello

Specialist heart services

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Highlighting that "research, innovation and education have been constant themes" at Royal Brompton since it was founded in 1841, the journal explained that the Trust produces more highly cited publications about respiratory and cardiovascular medicine than any other NHS trust in England.

Research highlighted in the article includes the CardioMems system, where a microchip is placed in the pulmonary artery for patients with heart failure to enable remote monitoring, and, in collaboration with respiratory specialists at the hospital, new ventilation and mask technologies for the treatment of sleep apnoea and heart failure.

While highlighting the hospital's "world-class research facilities" and congenital heart disease as a "stand-out area of research", patient-centred care is identified as the Trust's focus.

Consultant cardiologist Professor Kim Fox commented: "Everything we do at Royal Brompton and Harefield is based on our patients. Our research is patientfocused and we believe we can give the best care to our patients by having a high-profile interaction between our clinical and research colleagues."



Professor Kim Fox

Inaugural Arrhythmia Summit takes place



Magda Greda, healthcare assistant and Shouvik Haldar, consultant cardiologist

A new annual scientific event

launched by cardiology experts from the Trust took place in March, with more than 200 delegates attending.

The London Arrhythmia Summit brought together experts from around the world to discuss the latest advances in electrophysiology and implantable cardiac devices, including important new studies and changes to guidelines.

The one-day summit on 16 March 2018, was attended by more than 200 delegates from 10 countries, including the USA, Canada, Iraq and South Korea. It featured in-depth presentations and thought-provoking debate involving eminent international, European and UK specialists.

The programme was dedicated to highlighting guideline changes and important developments that will impact daily practice, and considering new developments on the horizon.

The summit, which was developed by the heart rhythm team at the Trust with the charity Arrhythmia Alliance providing logistical support, is now set to be an annual event, providing an alternative forum for arrhythmia education in the UK. There is a growing need to provide high-quality educational content here in the UK and this inaugural event sets the precedent for arrhythmia education going forward.

Dr Shouvik Haldar, one of the consultants who directed the event, said: "Our aim was to give electrophysiologists and arrhythmia specialists from the UK and beyond a succinct review of all the important developments and changes in this arena over the past year.

"There is a growing need to provide high-quality educational content here in the UK and this inaugural event sets the precedent for arrhythmia education going forward.

"It is fantastic that the Trust is taking the lead in this arena and we hope to develop this into an unmissable event in the cardiology conference calendar."

The second London Arrhythmia Summit will be held on 15 March 2019.

Nurse wins national award for work with familial hypercholesterolaemia



Lorraine Priestley-Barnham and Heart UK Medical Director, Dr Alan Rees

A clinical nurse specialist at

Harefield Hospital won an award this year for her work in helping raise awareness and detection of familial hypercholesterolaemia (FH).

Lorraine Priestley-Barnham won the Rianna Wingett Award, which recognises healthcare professionals who go beyond the call of duty to help treat FH.

FH is an inherited condition which leads to exceptionally high cholesterol levels, double or even four times higher than average. Only one in five people with FH know that they have the condition.

Nurses such as Lorraine are able to detect family cases of the condition based on data from patients who receive treatment at the Trust, helping to identify and treat more cases of the disease.

Lorraine is a clinical nurse specialist in hypercholesterolaemia and cascade screening, and has worked at the Trust since 2014. She was presented with the award at an annual ceremony hosted by Heart UK, a national charity that works to help prevent premature deaths caused by high cholesterol and cardiovascular disease. The award was launched in memory of 11-year-old Rianna Wingett, who died suddenly in 2009 following a cross country run at school, and was found to have been suffering from undiagnosed FH.

Simon Williams from Heart UK said that Lorraine was "a clear winner" of the award. He said: "She has been a great help to our charity, both personally and professionally.

"Her role in helping us to write publications for children with FH, giving us advice on the condition and helping us learn how to talk to children with FH was incredibly valuable to our services. We now have a children and young people's programme, and three booklets full of information for them. She is always there when we need a helping hand."

Lorraine said: "I was both honoured and humbled to receive the award. My focus is always passionately geared toward looking after the best interests of children.

"By raising awareness to help increase early detection, it's my hope that children with FH will be appropriately managed and should not die from inheriting the FH gene."







Mr Andreas Hoschtitzky

The Trust's heart division was strengthened this year by the appointment of Mr J. Andreas Hoschtitzky.

Mr J Hoschtitzky was previously lead surgeon for the regional north west of England and North Wales adult CHD programme based at Central Manchester, and an honorary paediatric cardiac surgeon at Alder Hey Children's Hospital.

He trained at Leiden University Medical School in The Netherlands. He completed general and adult cardiac surgical training in London, Bristol and Manchester, and congenital cardiac surgery fellowships at Great Ormond Street Hospital, Guy's and St Thomas' Hospital, and Alder Hey Children's Hospital.

Mr Hoschtitzky said: "Royal Brompton's congenital heart disease (CHD) unit is one of the biggest and best in the UK: around 1,300 procedures are conducted here each year and the unit consistently has among the best patient outcomes in the country. People born with CHD are living longer than ever before and, as a result, demand for these services is increasing.

"Royal Brompton is also recognised as the most influential research unit in the world for adult CHD, and I am absolutely delighted to be joining such an internationallyrespected team."

Outside of his work in the NHS, Mr Hoschtitzky is working to set up a new, self-sustainable congenital cardiac surgery service for the north-east of Brazil, in conjunction with the International Children's Heart Foundation.

Welcoming Mr Hoschtitzky to the Trust, Dr Richard Grocott-Mason, medical director, said: "Andreas brings a wealth of expertise and we are all extremely pleased that he chose to join us. We are committed to investing in, and protecting, our services for CHD patients – many of whom we treat from birth to old age."

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Royal Brompton is also recognised as the most influential research unit in the world for adult CHD, and I am absolutely delighted to be joining such an internationallyrespected team.



Harefield Heart Live encourages teamwork in heart attack response

Harefield Heart Live 2017 attracted more than 200 staff, patients and members of the public in October.

The two-day event, which launched in 2007, involves sharing best practice in heart attack management with professionals, and gives patients and the public the chance to learn about CPR essentials.

Professionals, including doctors, nurses and paramedics, learned about the latest techniques and treatments in heart attack management, including a live simulation exercise, panel discussions and lectures.

Patients and public were given the chance to learn how the Trust trains and develops its expert medical staff, and to learn and practice the CPR essentials that could one day help them save a life.

The Trust team demonstrated plans for a 'ready to resuscitate' booth and app, which will teach basic resuscitation, and



Wayne Hurst (matron in cardiothoracic surgery) and Sarah Chorbachi (practice facilitator in cardiology) showing Kajal, Melissa and Monty from Rickmansworth School some CPR essentials

70 students from 11 local schools played the part of a giant focus group to give feedback on the plans.

Consultant cardiologist Dr Miles Dalby, who runs Harefield Heart Live, said: "The real ethos of this event is around teamwork – how those in the field, such as ambulance staff, work with the team in the heart attack centre. We've expanded it over the years to include subjects such as post-heart attack and rehabilitation care, and most recently resuscitation in the general public.

"When most patients have a heart attack, their first contact is not with one of our specialists or even an ambulance crew, it is with a member of their family or a stranger in a public place. If that person can do some CPR in those first moments, the person's chances of survival are increased."

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The real ethos of this event is around teamwork – how those in the field, such as ambulance staff, work with the team in the heart attack centre.

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Specialist lung services

Our specialist lung services in 2018

Teams at Royal Brompton and Harefield hospitals are at the forefront of diagnosing and treating diseases of the lungs, ranging from genetic conditions such as cystic fibrosis, to those acquired through smoking or industrial exposure.

New procedure gives asthma sufferers hope

Asthma sufferers have been given hope for improved treatment with a new procedure at Royal Brompton Hospital.

Professor Pallav Shah

The trailblazing therapy, targeted lung denervation (TLD), has shown excellent results for the treatment of chronic obstructive pulmonary disease (COPD). Now, the RELIEF-1 trial is investigating whether those with asthma can benefit too.

Professor Pallav Shah, consultant respiratory physician, said: "In the worldwide studies of TLD for COPD, about 70 per cent of patients who have undergone the procedure have seen an improvement in lung capacity, breathlessness and quality of life.

"We're now looking at whether this treatment can also help those with severe asthma. Both these lung conditions are triggered in the same way."

TLD works by using heat energy, in the form of radiofrequency waves, to destroy branches of the vagus nerve that are no longer working properly. This prevents the faulty nerve branches from sending messages which cause muscles to tighten and produce mucus. Professor Shah said: "We are aware the tiny branches of the vagus nerve – which stretches from the brain, down the windpipe and into the lungs and are wrapped around the outside of the lungs' airways – worsen the effects of the condition.

"This is because the nerves cause the muscles that line the airway to become overactive, rather than moving smoothly as they do in those without the disease. This, combined with the excessive production of mucus that coats the airways from the effects of chronic smoking, makes them narrower and more irritated.

"This constriction means the air cannot flow in and out so easily, so those with COPD are left short of breath and often suffering from a persistent cough, wheezing and a tight chest."

Professor Shah said the results with COPD are very promising and the team at Royal Brompton hopes to see similar results when TLD is used with asthma patients.

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In the worldwide studies of TLD for COPD, about 70 per cent of patients who have undergone the procedure have seen an improvement in lung capacity, breathlessness and quality of life.

Study highlights potential for life-changing lung procedure



Research by Royal Brompton's respiratory teams, published in the European Respiratory Journal Open Research, has found that patients feel they are having to 'fight' to be referred for an important procedure, despite it being recommended by the National Institute for Health and Care Excellence (NICE).

Lung volume reduction is suitable for some patients with COPD (chronic obstructive pulmonary disease), a group of lung conditions that cause breathing difficulties. The procedure can have a significant impact on length and quality of life. The procedure involves removing damaged tissue, giving the healthy parts of the lungs more room to breathe. It sometimes involves an operation, but can also be done using a fibre-optic camera.

Fewer than 100 patients undergo the procedure each year in the UK. Dr Nick Hopkinson, honorary consultant physician at Royal Brompton Hospital, said: "These procedures can bring dramatic benefits to patients with COPD, so it's a real concern that people who may benefit from them are not being considered to see if they might be suitable for treatment."

The study involved collecting the experiences of patients with emphysema (a type of COPD) who had a lung volume reduction procedure at Royal Brompton or Glenfield Hospital in Leicester.

Dr Hopkinson said: "We heard throughout this study that patients had to wait a long time before eventually being referred to a specialist. Health professionals may not know about recent advances in lung volume reduction treatments, they may not be sure how to refer or they may think that procedures are riskier than they really are.

"Sadly, patients described to us how they had to fight to be referred for these procedures, which could have a significant impact on their quality of life."

"It's completely changed my life. It feels like I can breathe again"

Penny Rickman, 62, had been told since childhood that her shortness of breath was a result of asthma. It was only in 2002 – when Penny was 48 – that she learned she had emphysema, a form of COPD which damages the air sacs in the lungs.

Penny said: "My symptoms would suddenly worsen and it felt like there was an elephant sitting on my chest. I'd be really struggling to catch my breath at all. It was very frightening."

Despite regular visits to her GP over the next nine years whenever her condition deteriorated, Penny wasn't referred to a respiratory consultant for regular check-ups at her local hospital until 2011. Penny's lung condition deteriorated to the point where she was dependent on a portable oxygen concentrator.

She was referred to Royal Brompton in 2014, where she was diagnosed with alpha 1 antitrypsin deficiency: a rare, inherited condition that can lead to people developing COPD early in life and may mean the disease progresses more quickly than usual.

Doctors at Royal Brompton offered Penny the chance to take part in a clinical trial of a new technique for lung volume reduction. Three endobronchial valves were implanted in her left lung, which allow air to leave damaged bronchi, but not to return. This reduces the amount of trapped air in the lungs and means she can breathe more easily.

Penny said: "It's completely changed my life. It feels like I can breathe again, and I can do the things I love without using the oxygen at all. The procedure has been absolutely lifechanging for me."

Commenting on whether she should have been offered the procedure earlier, Penny said: "I didn't know it was available. I just hope more people in my position ask their GP about whether they might be suitable, and I hope doctors realise what a difference it can make – I'm convinced it could benefit a lot more people."

Trust experts help shape the future of respiratory medicine

Two experts at the Trust this year helped to shape the way respiratory conditions are diagnosed and treated, in the UK and further afield.

Professor Andrew Bush,

consultant paediatric chest physician, co-edited a special commission from The Lancet, which drew together research and opinion from around the world to challenge doctors to think differently about the way they diagnose and treat asthma.

Professor Bush teamed up with colleague Professor Ian Pavord from the University of Oxford to create the Lancet Asthma Commission, and says the aim of the publication from the outset was to be provocative and challenging. He explained: "It's meant to be a controversial document, meant to shake people up.

"We feel that asthma care has stalled. There is no doubt that a lot of asthma is easy to treat with the right medication and the right advice. However, this has bred complacency: anyone can diagnose asthma and anyone can treat it. But we should be thinking more about curing it."

Dr Nick Hopkinson, reader in respiratory medicine and honorary consultant physician at

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There are 1.3 million people in the UK with a diagnosis of COPD, so it's important to make sure that the guidelines that NICE produces reflect the best available evidence. Royal Brompton, has been appointed to the National Institute for Health and Care Excellence (NICE) panel that is reviewing the new national guidelines on chronic obstructive pulmonary disease (COPD).

Dr Hopkinson, the Trust's clinical lead for COPD, will work with colleagues on the panel to ensure that the latest national guidelines on diagnosing and managing this group of severe lung diseases are based on the right evidence.

Dr Hopkinson said: "There are 1.3 million people in the UK with a diagnosis of COPD, so it's important to make sure that the guidelines that NICE produces reflect the best available evidence. This will help to ensure that our patients receive the best treatment."



Professor Andrew Bush



Dr Nick Hopkinson



New medicines help improve quality of life

A new group of medications

has been enabling patients with some of the most serious forms of asthma to enjoy a better quality of life.

Biologics work by targeting and blocking specific parts of the immune system that are involved in allergic reactions and asthma symptoms.

This year the respiratory team at Royal Brompton began using these medications to give patients an option that does not involve high-dose steroids – which can have unpleasant side-effects.

While not suitable for all patients, those who have been able to move onto these drugs have reported reduced breathlessness and an ability to be much more active.

Dr Andrew Menzies-Gow, consultant physician and respiratory division clinical director, led the introduction of biologics at the Trust. He said: "For many years, high-dose steroids were the only real option for managing severe asthma symptoms, so biologics have been a significant breakthrough.

"Patients for whom this medication is suitable have reported significant improvements in their quality of life, and as this young family of medication develops further and new varieties become available, we're hopeful that many more of our patients will be able to benefit."

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For many years, highdose steroids were the only real option for managing severe asthma symptoms, so biologics have been a significant breakthrough. **Simon Harding-Rolls** developed lateonset asthma in 2003 and was eager to find out if he was suitable for treatment with biologics.

He said: "I've been on daily steroids since 2005 and they have lots of side-effects: the most serious I've had was steroid-induced diabetes. I'm grateful for the treatment – without it I would probably be dead – but your quality of life is majorly affected by it.

"Asthma does make you old before your time. I used to go skiing and throw myself down every slope known to man, but now I can't even get up a mountain. My 13-year-old son knows that when we go to the park 'daddy doesn't run'.

"I'd been aware of biologics for some time. I wanted to join the trials for them but couldn't, which was quite a blow, but as soon as they became available I went for it – and it's made a tremendous difference."

Simon is prescribed a biologic called Mepolizumab (Mepo), which is administered via injection during an outpatient appointment at Royal Brompton. As well as having improved overall lung function, Simon has not experienced any acute periods of illness since being on Mepo, which he says previously used to happen two or three times a year.

He said: "I can do far more than I used to be able to do. I can now jump off a train at Waterloo and walk into the city from there if I want to. In that sense, Mepo has been a game changer."



Simon Harding-Rolls and Rachel Stead, clinical nurse specialist in asthma



Research shows benefits of Tai Chi for patients with COPD

Research by a Trust respiratory expert

has shown that the ancient art of Tai Chi is a lower-cost, more easily accessible alternative to conventional rehabilitation for chronic obstructive pulmonary disease (COPD) patients.

Respiratory consultant Professor Michael Polkey, alongside Chinese researchers from the State Key Laboratory of Respiratory Disease in Guangzhou, carried out a study of the impact of Tai Chi on respiratory function.

It showed that Tai Chi is a viable alternative to pulmonary rehabilitation (PR), the usual form of management for improving respiratory function.

Tai Chi, which originated in China, involves stretching, breathing and coordinated movement. The study tracked 120 patients with COPD in rural China who had never used a bronchodilator (a medication that makes breathing easier by relaxing the muscles in the lungs and widening the airways).

After beginning daily treatment with the bronchodilator, subjects were randomly assigned to groups receiving traditional PR or Tai Chi. After 12 weeks, a clinically significant difference in health status (as measured through a questionnaire) emerged favouring Tai Chi. Similar trends were noted in performance of a six-minute walk test.

Professor Polkey said: "Physical activity is key to reducing symptoms in COPD. We do recommend PR, but our study shows that Tai Chi is a viable alternative when there is no local PR service. We encourage PR providers to consider offering Tai Chi as an alternative therapy that patients would then be able to continue unsupervised in their own home.

"The study has implications for the UK too. Provision of PR can be patchy in some parts of the country and practising Tai Chi offers a more easily accessed alternative."



Professor Michael Polkey

The study was published in the journal Chest.

Research leadership success for cystic fibrosis expert

Consultant physician Dr Nick Simmonds received a national award on behalf of the cystic fibrosis team in recognition of its globally-significant research.

The Clinical Research Network Awards from the Royal College of Physicians (RCP) and National Institute for Health Research recognise outstanding research leadership in the NHS.

Dr Simmonds, who was also this year appointed to the position of associate director of the cystic fibrosis department alongside colleague Dr Su Madge, was presented with the award at the RCP's Harveian Oration – a keynote lecture that has been held annually for 500 years.

While Dr Simmonds was the named recipient, he is clear that the award was a result of teamwork, saying:

"Research is something I feel very passionate about, so to receive this recognition is extremely pleasing.

"The award is important because it acknowledges research that takes place specifically within the NHS – I believe that ensuring research is embedded into our daily practice is a vital way to deliver high quality patient care and outcomes.

"We have a strong culture of research in this Trust, and without the support of my colleagues and the wider cystic fibrosis research team this would never have been possible."

A dedicated service for **children and** young people

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Longer hospital stay improves outcomes for babies

A major transformation in how we treat babies with a serious congenital heart condition has raised the survival rate to 100 per cent during a challenging period in their care.

Hypoplastic left heart syndrome (HLS) is a defect in which the left ventricle (lower pumping chamber of the heart) is underdeveloped and much smaller than it should be, while the aorta (the main blood vessel that carries blood from the heart to the rest of the body) is usually very narrow too.

Even with medication, life expectancy is no more than four weeks.

The most widely-used and successful treatment is a three-stage operation called the Norwood procedure, with one operation soon after birth, a second a few months later, and a final one at roughly four years of age depending on the child.

Data from all centres that perform the Norwood procedure shows that 20 per cent of patients do not survive between the first and second operations, the so-called 'interstage' period.

The Trust's hypoplast programme was relaunched in 2015 by consultant >>

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It is normal once a child is stable for them to be discharged until the second procedure, and for 80% of them this is fine, but the complications that occur in 20% of cases are invariably fatal, because these are sudden events such as arrhythmia or aspiration pneumonia that require quick intervention.

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| Children and young people



Mr Guido Michielon

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paediatric heart surgeon Mr Guido Michielon, who introduced a new approach of keeping children in hospital until after they have recovered from their second operation.

He explains: "It is normal once a child is stable for them to be discharged until the second procedure, and for 80 per cent of them this is fine, but the complications that occur in 20 per cent of cases are invariably fatal, because these are sudden events such as arrhythmia or aspiration pneumonia that require quick intervention.

"We had the idea that being in hospital during this time would facilitate escalation of care – if the child has any complications, they are in exactly the right place." In reality, this means babies needing to stay in hospital for many months, which is difficult for parents and resource-intensive for the Trust, so Mr Michielon launched a study to examine whether this new approach is worthwhile – and the evidence gathered is overwhelming.

He said: "Since May 2015 we have offered to keep all interstage children with HLS and its variants in hospital, with daily and weekly investigations, so we could track survival across every stage.

"Up to May 2018, we have had a total of 28 patients, of whom 26 survived the first operation. Of those, 24 parents took up the offer to remain in hospital, and we have had no mortality during the interstage period.

"What is very interesting is that 20 per cent of children did need escalation of care, in line with what we would expect, but they were taken back to theatre or moved to intensive care and all survived. Had those events happened outside hospital, they would have invariably been fatal."

Each operation in the process is major open-heart surgery and carries a degree of risk, and two patients in the study did not survive the second operation. However, 24 patients out of 28 represents a survival rate of 90 per cent, which Mr Michielon says compares "very favourably" with other centres.

The children from the study are growing up fast, and he expects to perform the first stage three operation in the Trust's new programme within the next few months.

Mr Michielon concludes: "Yes this is a use of resources beyond what could be considered a normal level, but by doing this we are achieving a good quality of life for children with a condition that is fatal – and that cannot be measured. What price can you put on a child's life?"

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What is very interesting is that **20 per cent** of children did need escalation of care, in line with what we would expect, but they were taken back to theatre or moved to intensive care and all survived.

The three stages of the Norwood procedure

- Stage one stabilises the child and happens soon after birth. The surgeon enlarges the tiny aorta, inserts a shunt to improve blood flow, and reconfigures the inside of the heart so that a mix of oxygenated and nonoxygenated blood is now flowing around the body.
- Stage two takes place around six months of age, when the shunt (which is made of artificial material) is removed

and a vein is used to create a more permanent blood flow to the lungs.

Stage three is called the Fontan procedure and happens at a later stage, usually around the time the child starts school. This procedure further reconfigures the heart to create a more "normal" circulatory system – with oxygenated blood flowing to the body, and non-oxygenated blood going to the lungs.



'Social Club' makes time in hospital easier for babies and parents

It is normal for parents and carers of children with complex conditions to remain in hospital with their children for long periods of time. This can be challenging for their own wellbeing, so the paediatrics team now runs 'Baby Social Club' – enabling families to enjoy supported quality time together outside the hospital walls.

The inspiration for the club came from one very committed mother, as paediatric intensive care unit (PICU) deputy sister Rebecca McKeever explains:

"Our longest ever stay in PICU was a little boy, Zach Islam, who was here for 21 months. His mum was very good at entertaining him and taking him out with his portable ventilator.

One day she was ill and couldn't come in, and we noticed a real change in his behaviour, so we asked if we could take him out. We just went to the library but it made a difference to his whole demeanour and his mum was very pleased.

"After that myself, play specialist Romilly Cuthbert and family liaison Laura Karlsen sat down to discuss how we could make life better for other patients here, especially our hypoplast babies who are with us for at least six months and miss out on many normal experiences.

"We knew from specialist neurological consultant, Naila Ishmailya, how important social experiences are for children's development, and were supported by senior medical and nursing staff including consultant intensivist Dr Margarita Burmester and PICU matron Claire Buckle."

Portable monitors supplied by the Brompton Fountain charity enable the nurses to organise trips such as story time at bookshops



Social Club members enjoyed a trip to the local fire station to meet the firefighters



Social Club leads Laura Karlsen, Romilly Cuthbert and Rebecca McKeever (I-r), with Zach Islam and his mum Jushna

and libraries, social coffee shop outings, picnics, baby yoga, and visits to their 'secret garden' (a walled garden within the hospital's grounds). In total around 150 children and their carers have joined the trips.

Zach Islam's mum Jushna said she was delighted that her efforts to keep her son entertained during his stay on the ward had inspired a resource that is helping other parents.

"It's amazing," she said. "I can't tell you how important it is when you and your child are stuck in hospital for a long time, to have the opportunity to do 'normal' things. I feel really happy that this can benefit other people."

Rebecca McKeever added: "Parents tell us that every day in hospital can feel the same, and Social Club gives them something to look forward to – or in one mum's case something to put her makeup on for! It's a really important project for our team, and I think it makes a real difference to patients and their parents."

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I can't tell you how important it is when you and your child are stuck in hospital for a long time, to have the opportunity to do 'normal' things. I feel really happy that this can benefit other people.

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Festive trip for babies with congenital heart disease



Baby Zoya Ikram and mum Agnieska enjoyed an afternoon in Chelsea Garden Centre

Two babies who had been in Royal Brompton since birth with hypoplastic left heart syndrome, were able to take a trip out to Chelsea Garden Centre to look at the Christmas trees.

Seven-month-old Zoya and twomonth-old Levi enjoyed looking at the brightly-coloured flowers and Christmas lights. Feeling the cool autumn air was a new experience for both babies, who immediately fell asleep after going outside.

Levi's mum Estera Enculescu said: "It's good to get outside. When we were upstairs in the hospital he was crying, and as soon as we came out he fell asleep.

"It has been hard being in hospital for all these weeks. They worked with me during my pregnancy, but nothing prepares you for seeing your baby covered in tubes and not being able to hold him.

"The support I have had has been great though. I've even been able to start feeding Levi after two months, because of the breastfeeding support they give to the mums here."

Zoya's mum Agnieska Ikram, who had been by her daughter's side in hospital for seven months, said: "It has taken her a while to recover and there have been problems but she has fought through everything, including a cardiac arrest.

"All the doctors and nurses are really good, but it is still stressful because we are in hospital with our baby. There were moments when she was unwell and I couldn't do anything. If I could give her my own heart, I would.

"It's lovely to come outside. To just go for a walk or go to the park, just you and your baby... for an hour it feels like normal life."

Young patient raises money for babies in paediatric intensive care unit



The portable monitors used by Baby Social Club were donated by the Brompton Fountain, a charity that focuses solely on supporting our paediatric wards and – like all our charities (page 52) – is able to make a difference thanks to the generosity of patients, their families and members of the public.

One such supporter is thirteen-yearold respiratory patient Ramandeep Kaur, who raised money for the charity while staying on the children's ward for treatment after collapsing in the outpatients' department.

Ramandeep had been attending an appointment to manage an underlying condition, obliterative bronchiolitis, which causes the lungs to become scarred and lose function. The paediatric respiratory and intensive care teams rushed to outpatients to resuscitate her, before admitting her to PICU. She has since made a good recovery. Ramandeep, who raised the money by selling cookies that she hand-decorated with heart and lung motifs, said: "I really wanted to do something for the babies here."

Dr Louise Fleming, consultant respiratory paediatrician, said: "Ramandeep is an absolute joy. She has such a positive outlook and is very determined.

"It was an incredible team effort to resuscitate her. The outpatient staff, intensive care unit and respiratory teams worked seamlessly. It is a credit to them that Ramandeep has made such a good recovery."



Care Quality Commission places our children's services in top six nationwide

Young patients and their

carers have rated the Trust a good place to be cared for in the latest national Children and Young People's Survey.

The survey covers both inpatients and day cases, and asks 63 key questions about the experience of being in hospital.

The Care Quality Commission (CQC), which publishes the survey, identified the Trust as one of only five in England that performed "much better than expected" in the eight to 15 age category.

The Trust's results were also "better than expected" for children aged up to seven years old. Combined, it means the Trust is one of only six nationwide achieving "much better than expected" results for young patients.

There were also some significant improvements in the Trust's score since the previous survey two years before, including:

 96 per cent of parents/ carers rated their child's care as 7/10 or higher – up from 88 per cent in the previous survey. Nearly half rated their care at 10/10.

• A 50 per cent increase in the number of parents who felt they were kept fully informed about their child's care – up to 96 per cent.

The survey involved 132 acute and specialist NHS trusts across England. Key areas where our scores were significantly higher than other trusts included:

- how well staff kept young people and their families informed and involved in their care
- how available staff were when a child needed attention, pain relief, or someone to play with
- the level of dignity and respect shown to young patients and their families
- the overall experience of receiving treatment in our hospitals.

Man's best friend brings fun to children's ward

It was puppy love at first sight for young inpatients when therapy dogs came to visit the playroom.

The therapeutic benefits of spending time with pets are well-publicised, but it is not easy to bring animals into a hospital environment with vulnerable patients.

However, thanks to the hard work of paediatrics matron Claire Buckle and her team, children and their families can now regularly spend time with Finn the golden retriever and Brinkley the cockapoo.

Claire explained: "I sought expert advice on the best breeds of dogs for children – characteristics, character, how soft their fur is for stroking – then we shortlisted and interviewed them in a local park."

Finn was the first dog to visit, with his owner Helen Webb. During his inaugural visit to Rose ward, Finn met 10-month-old Reyan, 18-month-old Freya, five-year-old Darcy and seven-year-old Isabella.

Isabella's mum Louise Eaton explained that Isabella has a number of health complications including being blind, so sensory input, such as the tactile experience of petting a friendly dog, is very important for her.

She added: "Isabella's condition can be very isolating, so to have the opportunity to do this when she comes into Royal Brompton is really special."

Pets as Therapy was founded in 1983. Its volunteers take their own beloved pets to visit environments ranging from hospices and care homes, to schools and prisons, providing companionship and comfort to people who may not otherwise be able to spend time with animals.

Simulation doll provides vital lifesaving training



A bespoke simulation

doll that can 'learn' heart conditions has been produced to train doctors to detect life-threatening conditions in babies.

Paediatric cardiologist Dr Nitha Naqvi came across the innovative prototype on the internet, and was so inspired by its potential that she flew to Leipzig, Germany, to ask the inventor, Dr Michael Weidenbach, to make one especially for the Trust.

The doll, named SOPHIA, has been programmed with information about many serious congenital heart problems, such as hypoplastic left heart (a condition with an under-developed small left pumping chamber), and has the potential to "learn" new conditions.

Dr Naqvi said: "The system has been created by storing images of numerous real babies with congenital heart disease, and as such it provides the opportunity for diagnostic training on an entirely new level.

"Getting to scan the full range of congenital heart conditions in patients typically takes trainees years to accomplish, but this doll can provide realistic simulations of these conditions in just a few hours."

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We are thrilled to be one of the first in the world to have this doll.

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The baby was Dr Weidenbach's life work and he was originally reluctant to make any more. However, Dr Naqvi invited him to visit the Trust and see some of the congenital heart disease (CHD) team's outstanding work in research, education and patient care. Following this visit, he agreed to create a fully-produced model for the Trust – a process that took several years and cost £26,000. It was funded with the help of the Friends of Royal Brompton charity (page 53).

Dr Naqvi added: "I cannot thank the charity enough for their help. We are thrilled to be one of the first in the world to have this doll."

The CHD team has already used the doll to help share knowledge outside the Trust. Forty doctors from around the world visited Royal Brompton for a specialist training day, learning how to scan and identify different paediatric heart conditions in one afternoon.

Paediatric respiratory course success

The Trust's largest ever course in

paediatric non-invasive ventilation (NIV) has trained 50 consultants, trainees and allied health professionals so they can confidently manage young patients who need NIV to support breathing.

The whole-day course, organised by Royal Brompton's paediatric respiratory and sleep team, included handson workshops, clinical and academic lectures, and a thought-provoking debate on whether children with severe cerebral palsy should be started on NIV.

Course organiser Dr Hui-Leng Tan, consultant in paediatric respiratory and sleep medicine, said: "The number of children requiring NIV has increased exponentially, as a result of better medical care and better survival rates for a number of conditions, so it is really important that district general hospitals know how to look after children who need NIV.

"We have been running internal courses for some time to train our own staff, and we decided to open one up to external candidates. The day went smoothly and I was really impressed by the feedback we received, especially considering it was the first course we had run." Unlike invasive ventilation, which requires a tracheostomy, NIV uses expertly-fitted masks to deliver positive airway pressure via a ventilator to people who need support with breathing.

It is commonly used in children with neuromuscular disorders, but can be used to help manage a wide range of conditions including central hypoventilation and obesity hypoventilation.

A smooth transition: supporting young people moving from child to adult services

Our paediatric teams provide specialist care from before birth, through childhood and into teenage years, for children with cardiac and respiratory conditions.

Once patients reach around 16 years of age, they begin their transition to adult services, and ensuring a smooth transition is vital for their health and wellbeing.

Children with respiratory illness, congenital heart disease and acquired heart disease often need lifelong care. They have spent their young lives being cared for by children's teams and it can be a worrying time for them and their families when it comes to moving on from that familiar environment.

Specialist transition nurses help plan, prepare and move young people from children's services to adult healthcare. This is a gradual process of change, giving young people and their families time to adjust and feel ready to make the move.

An important aspect of this programme is a range of transition days that provide the opportunity to meet key members of the adult teams.

GOSH patients meet the Harefield team

Many young transplant patients

move from Great Ormond Street Hospital for Children (GOSH) to have their adult care at Harefield.

The two hospitals work together to ensure young people are familiar with their new services, and are ready to move on from GOSH.

Special events give the young patients the chance to become acquainted with their new clinical care team and have a tour of Harefield Hospital.

They also give young people a chance to say goodbye to their GOSH

clinicians, who attend to offer support and formally hand over their care.

At this year's event Olivia Cotter, 17, and Ella Armitage-Brown, 16, were among the patients who attended. The girls have been friends since they were in hospital together as toddlers.

Olivia, who had a heart transplant when she was two years old, after experiencing cardiomyopathy (a disease of the heart muscle) with secondary pulmonary hypertension (a type of high blood pressure that affects the arteries in the lungs and right side of the heart), said: "I feel ready



The picture of health: Ella Armitage-Brown and Olivia Cotter pose for a selfie

to move on. Great Ormond Street has been great, but it is a children's hospital and I'm no longer a child."

| Transitioning patients



Ben Sporle and mum Kerry Adamson

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Ella, who also had a heart transplant because of cardiomyopathy, added: "The staff have been very thorough. I've found it helpful and so has my mum."

Ben Sporle, 18, also diagnosed with cardiomyopathy, had a heart transplant in 2011. Ben has significant learning disabilities and needs extra support to understand his condition and make decisions about his care, so ensuring a smooth transition is vital. Ben's mum Kerry Adamson said: "This day has been really positive for us. The staff at Harefield can begin to get to know Ben and understand his specific needs."

Dr Helen Spencer, a respiratory physician from GOSH who specialises in cystic fibrosis, added: "This is an emotional time. We have often looked after these patients their whole lives. It feels like family. Transition is a big deal – for all of us."

Transition event inspires young heart patients with learning disabilities

An inspiring event for

young heart patients who have a learning disability has helped them prepare to move on to adult services.

The event at Royal Brompton introduced the adult congenital heart disease (CHD) service and enabled the teenagers to meet each other and make new friends, as well as giving them a chance to hear from inspirational speakers whose learning disabilities have not stopped them from living remarkable lives.

George Griffiths, who has Down's syndrome, gave a moving speech, explaining that: "Before I was born, some people told my parents that it would be disappointing to hold me and have to look after me – but now I'm 19, and I'm proving them wrong.

"I have not let learning difficulties, or my heart condition, stop me from doing what I want to do."

Karl Butler, 37, who now works as a learning disabilities advisor for NHS England, said: "Events like this would have really helped me when I was going through it all myself – it would have been great to have met other people like me."

Clinical nurse specialist Virginia Meira said: "Transitioning from paediatric to adult services can be upsetting for patients – but it is made even harder to understand with the added difficulty of a learning disability. We wanted to try and stop that potential upset by introducing this event, and help them ease into adult services in a way that is more appropriate for them."

Nana-Akua Mills attended with her son Jaden, who will soon be entering adult services. She said: "This is the very first chance we've had to go to an event like this since Jaden was born. My husband and I found the two speakers really moving.

"What they showed was the other end of our son's journey – overcoming that physical and mental adversity and achieving so much. It was really good for us to know that he's got a future out there."


Record-breaking year for Harefield transplants

Harefield Hospital's renowned transplant programme had its busiest year ever, giving 97 patients a new chance at life during 2017/18.

The record-breaking

97 operations included 33 heart transplants, 59 lung transplants, and five heart and lung transplants – as well as the implantation of five total artificial hearts and 37 ventricular assist devices (a mechanical pump that supports a weakened heart to pump blood around the body).

Since the first heart transplant was carried out at Harefield in 1980, there have been more than 3,000 transplant operations, including the world's first double heart and lung transplant in 1983.

Harefield has the best longterm survival rates in the UK for patients who have had a heart or lung transplant.

Mr Andre Simon, director of heart and lung transplantation and ventricular assist devices, said: "The number of people having transplant surgery here has increased significantly in the last eight years. When I first came here they did seven heart transplants a year, and now we are averaging almost three per month.

"Despite huge advances, engineering has not yet come up with a permanent replacement for the human heart. Let's put it in context: the human heart beats 70 times per minute – now calculate how many times it has had to beat in an 80-year-old. It cannot fail.

"This means that there will clearly continue to be a need for transplantation for the foreseeable future, which is why we continue to invest in developing our services, and with our planned partnership with King's Health Partners (page 9) I think we have very good long-term options for treating end stage heart and lung failure."

Perfusionists: a vital part of the transplant team

Clinical perfusion scientists

(perfusionists) are a key part of the transplant team – and the theatres team overall. They are the experts who ensure the heart-lung machines that take over a patient's breathing and blood circulation during surgery, work as they should.

When patients have surgery, perfusionists are responsible for their cardiac output, blood gases and blood pressure, while their heart and lungs are not working. Once the operation is over, perfusionists get the heart safely restarted and withdraw patients from machine support.

Most perfusionists are ITU nurses or science graduates by background. There are only 400 perfusionists in the UK, of whom 20 work at the Trust.

The perfusionists at Harefield are the most experienced in the world at using the "heart in a box" system. (page 39) Tim Pitt, head of perfusion, said: "When you see patients go onto the machines, and you have the responsibility of being their heart and lungs, it grips you.

"Our perfusionists go above and beyond what is expected at most other hospitals, using the whole range of skills and techniques across theatres, transplant, intensive care and paediatrics."

Home for Christmas with a total artificial heart

When Selwa Hussain was urgently referred to Harefield Hospital with end-stage heart failure in June 2017, the only option to save her life was to implant a total artificial heart. Only six months later, Selwa was able to temporarily leave the hospital and spend Christmas with her family.

Selwa is mother to two young children and was just 39 years old when she had her heart removed from her body and replaced with a machine.

She has familial dilated cardiomyopathy, a genetic heart disease, but had no symptoms until 2016. Her condition deteriorated quickly and in June 2017 she was urgently referred to Harefield with end-stage heart failure.

Ms Diana Garcia Saez, specialty doctor in cardiothoracic transplantation at Harefield Hospital, said: "Despite us increasing her medication, Selwa's condition was getting worse very, very quickly.

"Often, a left ventricular assist device can be used to maintain circulation in patients with failing hearts, but this wasn't an option because it would not have supported the failing right-hand side of her heart. The only option to save her life was to implant a total artificial heart." Selwa had her total artificial heart implanted on 27 June 2017. Harefield is the only centre in the UK that uses this device as a treatment for patients with heart failure.

Selwa said: "All I remember from before the operation was crying to my sisters, and giving my final wishes to my family. I remember when I woke up, being told my heart had been taken out, and I was so disorientated I thought 'what does this mean, have I died?'"

I can't thank the staff at Harefield enough, they are all so positive for you, even when life felt very bleak. It is an incredible place.

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Selwa spent the following month in hospital learning how to walk, talk, eat and drink again, and building up muscle strength through physiotherapy. She said: "I can't thank the staff at Harefield enough, they have been absolutely amazing; everyone, the doctors and the nurses, the physiotherapists are such experts, and the caterers, the cleaners, the healthcare assistants – they are all so positive for you, even when life felt very bleak. It is an incredible place." The artificial heart is powered by a portable driver that weighs seven kilograms and must be carried with Selwa wherever she goes.

However, thanks to her personal commitment to recovery and the expertise of the Harefield team, Selwa was able to be discharged home in time to spend Christmas with her husband and children.

She added: "Over Christmas I could go shopping, visit my family and I cooked for the first time in months. The device is an absolute godsend. To spend time with my family, to have some – even a little – normality back, is wonderful.



Selwa with her surgeon Ms Diana Garcia Saez

"Waking up at Christmas and seeing the kids playing at the bottom of my bed was a tearful moment... it makes you appreciate how precious life is."

How do total artificial hearts work?

A total artificial heart (TAH) is a pump that is surgically implanted into the body. It replaces the heart ventricles, which pump blood out of the heart to the lungs and other parts of the body, if they are diseased or damaged.

A TAH has four mechanical valves that work like the heart's own valves. These valves connect the TAH to the heart's upper chambers and the major arteries. Once the TAH is connected, it duplicates the action of a normal heart, enabling blood to flow through the body.

The TAH is controlled by a machine which is outside of the body. A portable device can be used outside of hospital – this fits into a backpack and weighs about seven kilograms. It can be recharged at home.



[©]SynCardia Systems, Inc.



'Heart in a box'

Harefield was the first transplant centre in

the UK to adopt the ground-breaking Organ Care System (OCS), also known as 'heart in a box', as its method of storing and transporting donor hearts for transplantation.

The service began using the technology in 2013 because of the number of donor organs surgeons had to decline due to distance or unsuitability.

The system is a huge leap forward from the conventional ice preservation method for organ storage and transplantation. It infuses a donor heart with warm, oxygenrich blood – effectively keeping the heart beating, just as it would inside the body, until it can be transplanted into a patient.

Instead of needing to be used within three hours, as is the case with ice preservation, a donated organ can be kept viable for between eight and 12 hours, enabling patients at Harefield to receive organs from as far away as Scotland.

Increasing the pool of potential organ donors in this way means that there is more chance of a suitable new heart being found for someone on the waiting list.

Harefield's theatres have carried out more transplants using OCS than any other transplant centre in the world – 144 since its adoption.

Mr Andre Simon. director of transplantation, commented: "For us, the organ care system has become the gold standard for organ retrieval – we use it for every single heart transplant patient. Firstly, it means we can treat more patients. Secondly, it means patients recover more quickly, so spend less time on intensive care and in hospital after their transplant. We have also reduced the incidence of post-transplant heart failure "

Harefield Hamsters Transplant Club

People who are waiting for an organ transplant, or who have had a transplant, often find it reassuring to speak to people who have been in the same situation.

The Harefield Hamsters Transplant Club supports people who have had or who are awaiting an organ transplant, and their families and carers. It provides support, information, and recreational and sporting activities to help with rehabilitation and overall health.

Founded in 1982 by a small group of heart transplant patients while at the fifth British Transplant Games in Cardiff, the club has grown considerably. In 1996 the club gained charitable status.

Throughout 2017/18, members of the club have taken part in various fundraising events, such as a 100km walk on the Isle of Wight and sky diving. Funds raised have contributed to projects such as a 3D printer for Royal Brompton Hospital that clinicians use to recreate their patients' hearts to help with diagnosis.

Double lung transplant recipient Douglas Forbes, who is the club's deputy chair, said: "We aim to help improve quality of life by promoting rehabilitation and providing a support network."

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We aim to help improve quality of life by promoting rehabilitation and providing a support network.

Harefield site transformed



An £18 million improvement

programme at Harefield was completed this year, transforming and future-proofing several areas of the hospital.

The works, which include a new imaging centre and an expanded intensive therapy unit, alongside a new private outpatients department, have significantly improved facilities and transformed patient and staff experience at the site.

The £18 million redevelopment, £2.6 million of which was donated by Royal Brompton & Harefield Hospitals Charity, will increase capacity at Harefield and enable more patients to receive world-class treatment in 21st century facilities. The projects have all kept the needs of staff, as well as patients, at the forefront, with larger staff rooms, better changing facilities, and more access to natural light and outside spaces.

• Imaging

A new imaging centre has been developed, containing state-ofthe-art MRI and CT scanners, and was opened in December 2017.

• Intensive therapy unit (ITU)

The ITU has been expanded to provide six more beds and a modern scanner. It combines a newly-built extension with refurbishment of the existing space.

The team can now treat an extra 250 critically ill patients each year, including patients suspected of having tuberculosis or other serious infections, in two new isolation rooms.

An innovative sun therapy terrace allows staff to move patients' beds outside to give them fresh air and sunlight, with medical gases and power maintained through a convenient hatch.

The refurbished ITU was opened in December 2017.

Harefield site transformed



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Acute cardiac care unit

Investment in Harefield's acute cardiac care unit has reinvigorated an area that was nearing the end of its working life.

The existing building remains, but it has been refurbished with new flooring, a new openplan nurses' station, and subtle but helpful features such as recessed washbasins in the bays to save space, and 'sun pipes' to filter additional natural light and air through the ceiling.

• Private outpatients department

A new private outpatients and diagnostic facility has been built at the front of the hospital. This includes three consulting rooms and a treatment/phlebotomy room.

The glass-walled extension is a striking addition to the front of the hospital.

• Private patients' ward

A new private patients' ward has also been built, replacing the hospital's ground floor patient area. It took 18 months to convert the second floor into a 20-bed ward, providing 16 en-suite rooms and a four-bed high-dependency unit. These works have freed up space on Maple ward, which is now being used for NHS 'day of surgery' admissions as part of the Darwin programme. (page 10)

Director of planning and strategy Piers McCleery, who led the redevelopment programme, said:

"Our staff displayed much patience and willingness to adapt while these major works were carried out around them. We are also grateful to the Royal Brompton & Harefield Hospitals Charity for vital donations of £1.5 million for the scanning centre and £1.1 million toward the expanded ITU.

"These improvements will all contribute to the gold standard of care our teams provide, and to giving patients the best possible experience."

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These improvements will all contribute to the gold standard of care our teams provide, and to giving patients the best possible experience.



Research highlights

Research highlights

Research plays a crucial role in the Trust's mission to provide world class specialist heart and lung care for patients.

PHILIPS

Our research is fully integrated with clinical activity, and the research strategy is continuously evolving in collaboration with clinical divisions. Each clinical care group now has an appointed research leader whose role is to support activity in line with the Trust's strategic research goals – to further enhance the organisation's national

and international research profile.

The Trust continues to be a leading centre for cardiovascular, critical care and respiratory research. The third RAND analysis (2016), which looks at influential biomedical and health research, highlighted that the Trust produces more highly cited publications about respiratory and critical care medicine than any other hospital trust in England – with researchers producing 862 peer-reviewed publications in 2017/18.

Our global standing for research would not be possible without our patients. In total, more than 1,800 research volunteers were recruited to our research studies and biobanks including participation in the 100,000 Genomes Project for rare diseases.

A total of £10 million of funding was awarded to Trust academics and their collaborators from a wide variety of funding bodies including the National Institute for Health Research (NIHR), British Lung Foundation, British Heart Foundation, independent charities and the Health Foundation. Income from commercial research contributed approximately £2.1 million to research activity at the Trust.

We continue to actively work with the Imperial College Academic Health Science Centre (AHSC) on collaborative research and education activities that includes Imperial College, Imperial College Healthcare Trust and the Royal Marsden Hospital. This includes contributing to the National Health Informatics Collaborative project by sharing lung cancer data and participating fully in the re-launched research development programme across the AHSC.

The third RAND analysis (2016), which looks at influential biomedical and health research, highlighted that the Trust produces more highly cited publications about respiratory and critical care medicine than any other hospital trust in England.

Other research highlights over the year include:

- Two senior researchers individually received high value research grants. Mr Eric Lim, consultant thoracic surgeon, was awarded £1.3 million from the NIHR for lung cancer research, while Stuart Cook, professor of clinical and molecular cardiology, was granted £2 million from the British Heart Foundation for dilated cardiomyopathy research.
- More than £800,000 of research funding was awarded specifically to research projects led by allied health professionals, nurses and healthcare scientists including physiotherapists, physiologists and pharmacists.
- Three out of 10 possible Royal College of Physicians/NIHR Awards went to our researchers – Dr William Man, Dr Justin Garner and Dr Nick Simmonds – recognising their outstanding contribution to research.

- The Trust has been commended by NIHR for its high number of open commercial clinical trials (ranked second in North West London) and recruitment into clinical trials to time and target, with particular recognition for the cystic fibrosis team, who recruited the first global and first European patients into multi-national studies.
- Promising outcomes for new cystic fibrosis drugs following two phase III trials led by researchers at the Trust were published in the New England Journal of Medicine in November 2017.

Our long-standing partnership with Liverpool Heart and Chest Hospital continues, working with them through the Institute of Cardiovascular Medicine and Science to run collaborative clinical trials and develop shared education and clinical services.



3 winners Royal College of Physicians/ NIHR Awards

Commercial research contributed approx £2.1m

> **£1.3m awarded** for lung cancer research

862 peer-reviewed publications in 2017/18

1,800 research volunteers were recruited

£10m funding

was awarded to trust academics and their collaborators

To keep abreast of all the latest research news visit the dedicated research section of the Trust website, and sign up to the team's newsletter **www.rbht**. **nhs.uk/research**



Clinical skills simulation centre manager Andrew Sykes (right) demonstrates the features of the new simulation mannequin

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

Training is a crucial part of our work and we have training facilities at both

Royal Brompton and Harefield to give clinical staff access to the most up-todate training and teaching.

We train our teams in various complex procedures, crisis management and

better teamworking, to better equip them in their roles. Our training is internationally renowned, with teaching provided by experts in their fields, and it attracts attendees from around the world.

The power of simulation

State-of-the-art simulation mannequins and highly immersive situations are used to prepare our teams for a range of different scenarios, ranging from a deteriorating patient in paediatric intensive care, to a patient being flown to Harefield's heart attack centre. This year, the education team acquired two new state-of-the-art mannequins – one for each hospital site – to add an extra layer of realism to the simulation experience.

The mannequins cost £45,000 each and

feature highly realistic anatomy and skin texture, articulated limbs and joints. They can make sounds, blink and breathe.

The new mannequins are a far cry from the origins of simulation, which began with 'part task' training tools such as a model arm to practise inserting cannulas or a torso for birthing.

Andrew Sykes, clinical skills and simulation centre manager, said: "With part task training you are teaching a task.

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The mannequins cost £45,000 each and feature highly realistic anatomy and skin texture, articulated limbs and joints. They can make sounds, blink and breathe.

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Modern simulation is an experience and enables us to practise for clinical events that most staff are unlikely to see particularly regularly.

"We have a particular focus on team training and encouraging multidisciplinary working. Historically, training has often been divided between doctors, nurses and allied health professionals, but in our Trust we recognise that when there is an incident, all these professions need to work together and human factors come into play, so that is what we are practising for when we run simulations.



Andrew Sykes prepares the mannequin for a training session

"In the 13 years I've been working in medical education, the advances in technology have been minor compared with other areas of medicine, but what really has evolved is our understanding of how we use simulation as a teaching tool and how to get the maximum value out of it."

The value of hands-on experience



A new training programme launched this year gives junior doctors the opportunity to learn how to carry out an advanced procedure on patients.

Our highly-trained consultant cardiothoracic anaesthetists at Harefield Hospital routinely insert 'central lines' into the larger veins of patients about to go into surgery. Once in surgery, the lines are used to supply the patients with medication.

Now members of the team are teaching junior doctors to carry out this advanced procedure in the same live environment.

Francesca Caliandro, consultant cardiothoracic anaesthetist, who led the initiative, explained: "Until last year, junior doctors could only practise inserting central lines into a mannequin in one of our laboratories. They acquired the skills involved, but there's no substitute for doing the real thing. "Now they each receive a day's oneto-one training with a consultant, during which they learn to insert central lines in patients."

Dr Mohamed Zuhair, one of the junior doctors who has taken part in the programme, said: "It's really valuable because it equips you with advanced skills to carry out the procedure on patients who may urgently need to be treated in other medical situations in future – without having to wait for an anaesthetist to arrive."

"

Now they each receive a day's one-to-one training with a consultant, during which they learn to insert central lines in patients.

"

Listening to our patients

One of the Trust's core values is "We Respect" – we believe that patients should be treated with respect, dignity and courtesy at all times and that they should be well informed about, and involved in decisions about their care. We always have time to listen to feedback, positive and negative.

The Friends and Family test is a nationally-mandated feedback score, which we were quick to adopt after its launch in 2012. It asks one simple question: "How likely are you to recommend our ward/clinic to friends/family if they needed similar care or treatment?" During 2017/18 we exceeded the targets set by NHS England for the number of responses expected, and 95 per cent of those who responded said they would recommend our care.

Actions taken as a result of the very small (two per cent of respondents) amount of negative feedback received include:

- Replacing toys in the children's outpatients department
- Establishing a pilot scheme to share patients' medications with their GP or local hospital electronically
- Trying out a system to offer electronic appointment letters for outpatients.

How likely are you to recommend our ward/clinic

to friends/family if they needed similar care or treatment?

95% of those who responded said they would recommend our care



View of our patients

Many patients who feel they have had a good experience are eager to praise the individuals responsible, and we consistently receive a wealth of good feedback via our comment forms, a selection of which is included below:

Royal Brompton

Paul Wood ward (cardiac care):

The care you receive at Royal Brompton is first class – you don't get the same care at any other hospital. We are all lucky to be treated there.

Harefield

Cardiac rehabilitation clinic:

The rehab sessions are run excellently – they have

improved my outlook and ability to do everyday activities without tiring. The staff who run the sessions are tough but they ensure I get the most out of each session. They are very friendly and the sessions are highly effective.

Royal Brompton Lind ward (respiratory medium dependency unit):

I can't fault one thing about this hospital, so

caring and they spend time explaining things. They give the treatment you need as quickly as possible and get you in asap. I rate this hospital 10/10.

Harefield

Cherry Tree ward (day case):

I arrived at hospital a little nervous and apprehensive. However... the staff were courteous and totally professional in every way. The caring atmosphere filled me with confidence and I felt fully involved.

Royal Brompton

York ward (cardiac care):

The team of doctors and nurses were very kind, caring and full of information and advice regarding my individual queries. Fantastic hospital who have shown a real duty of care, I would recommend this hospital to everyone.



Harefield

Oak ward (acute cardiac care unit):

This was an emergency situation for me. The rapid response when I arrived undoubtedly improved my prognosis for a full recovery by minimising damage to my heart. I was kept informed as things progressed and the nurses in Oak ward were wonderful. I have a lot of people to thank for saving my life that night.

"

I can't fault one thing about this hospital, so caring and they spend time explaining things.

Royal Brompton

Foulis ward (respiratory ward with special focus on cystic fibrosis):

From the moment I arrived I felt welcomed, unpressured and cared for. During my three-day stay I greatly appreciated not only the attentive professionalism of all the staff but also the friendliness and calm they showed towards me.

Harefield

Cardiology lounge (page 12):

Everything was explained to me and the professionalism was appreciated. They all had the human touch. Your staff are a credit to the NHS.

Royal Brompton

Rose ward (children's ward):

Fantastic care – talked through procedure so well with my daughter and actually made it fun! World class surgery and pioneering techniques.

Harefield Acorn ward

(acute cardiac care unit):

Cannot speak highly enough about the outstanding levels of expertise and care. Even when it was busy, contact was personable, helpful. I was also able to have a joke and a smile which helped to take away the anxiety of being in acute care and coming to terms with a serious condition. Real blessing being sent to Harefield.

Royal Brompton

Lind respiratory day case unit:

Everyone on Lind ward [is] very friendly and helpful. The staff are always busy but you never feel rushed. A credit to Royal Brompton and the NHS.

Harefield Cedar ward (adult surgical ward):

I found the standard of professionalism and care to be of the highest order. You are not just classed as a patient but as an individual. In an environment where patients' fears and anxieties need that little extra care, the staff were superb in going that extra yard in reassuring their charges. Well done to all and keep up the fine work.

Royal Brompton

Sleep Centre:

As a first visit to the sleep centre it was great. Excellent reception staff, very welcoming and efficient, prompt attentive service from all staff, approachable and knowledgeable clinicians. World class.

Some patients choose to post their feedback online.

Care Opinion website



"The care my partner received

and support that I was given was quite honestly outstanding. I am a registered nurse myself and have therefore worked in a variety of hospitals. Royal Brompton in both our opinions is faultless, and is a credit to the NHS."

"My Harefield experience has been very positive and I would recommend this hospital to anyone due to the care, treatment and professional attitude of all doctors, nurses and other staff. Thank you so very much for your dedication to your profession."

"My husband spent five days [at Harefield] after a Lung Wedge Resection. He is a cancer patient. We've never experienced this level of excellent nursing and kindness in a hospital before. Since he's been home he has improved daily. Thank you so much to the surgeon and nurses of Maple ward."

NHS Choices

NHS choices

"I recently had surgery and

the care exceeded my expectations. The staff were exceptional and I felt in safe hands. The hospital is clean, the staff are friendly, dedicated and caring. I cannot express enough how grateful I am for all they have done for me."

"Staff on the Lind ward were fantastic. They were caring, professional and helpful. They reassured me when I was nervous about having a bronchoscopy. I am really grateful for the care I received."

Others like to use social media

Twitter

"**@RBandH** I can't thank the PICU doctors and nurses enough for looking after my 1 day old baby. He had an open-heart surgery at 6 days old. They are amazing #longlivetheNHS" **@saikareshi**

"Just got home after ICD replacement at **@RBandH** (Harefield). Staff there humblingly professional and dedicated to the nation's health." **@almsforoblivion**

To follow the Trust on Twitter, search @RBandH

Emergency planning and preparedness

The Trust has a statutory obligation to plan and prepare for the fullest possible range of major incidents and potential business disruptions, which could affect patient care.

These situations could range from extreme weather conditions to an outbreak of an infectious disease or a major transport accident, so we must be in a position to respond to such incidents while maintaining services to our patients.

We continuously assess for potential risks and undertake regular testing and exercises with different groups of staff, in order to update and improve our response plans.



Special emergency drill: theft of a nuclear source

Part of our duty to our patients is to anticipate and prepare for possible future risks, no matter how unlikely.

In summer 2017 a highly unique exercise was held to see how teams at Harefield Hospital would respond to the theft of a nuclear source.

In the exercise – believed to be the first of its kind in an NHS building – a fire alarm was maliciously set off to create a distraction to enable the theft from the nuclear medicine department.

Catherine Philpott, the Trust's emergency preparedness, resilience

and response manager, said: "While this was a very unusual exercise, it is important that we plan for every possible scenario. I am pleased with how the team reacted and feel confident that the Trust would be able to respond effectively to a real event."

Responding to the exercise, Harefield's nuclear medicine team successfully notified the Environment Agency and police counter terrorism security advisor. The area was cordoned off to preserve evidence and staff worked work with internal security and the police to gain quick access to CCTV with a view to identifying the offenders.

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While this was a very unusual exercise, it is important that we plan for every possible scenario. I am pleased with how the team reacted and feel confident that the Trust would be able to respond effectively to a real event.

Similar exercises have since taken place at Royal Brompton Hospital and the private patients' facility in Wimpole Street.

Paediatric study day improves evacuation for babies



The paediatric intensive care (PICU) team has designed two new pieces of equipment to help evacuate babies in the event of an emergency.

Staff devoted a full study day to examining their evacuation procedures and discovered that standard evacuation equipment was not suitable for PICU babies, who often need to be moved while still connected to ventilators and other equipment.

After doing an evacuation exercise, the team worked together to design a new 'ski sheet' for moving cot mattresses. A ski sheet is a piece of sheeting with straps attached which fits under a mattress, and in the event of an emergency can used to evacuate bedbound patients by sliding the mattress out of the building. The new paediatric ski sheets feature more straps for added security, and the fixings have been updated to soft plastic which is kinder to babies' skin. These new sheets have been produced and are now in use on the unit.

Another piece of equipment that our experts felt could be improved is a wearable cot that sits on the front of an adult's body and enables a single member of staff to evacuate a baby. The team felt the standard model was not sturdy enough to hold PICU equipment and are working with a product designer to create a version with a more rigid and stable base.

Paediatrics matron Claire Buckle said: "The safety of our patients is always our number one priority, and of course this extends to ensuring we have the optimum evacuation procedures for getting children out of harm's way.

"It is only when you test equipment like this, that you can see any potential issues with it, so this study day has meant we could get to work on producing something much more suitable for our patients and their unique needs."

Ski sheet

Every single bed in the Trust has a ski sheet already situated underneath the mattress, so that in the event of an emergency, the evacuation equipment does not need to be fetched and patients who cannot walk can be moved to safety immediately.

Rehabilitation and therapies

People with heart and lung conditions can find some daily activities a challenge. As well as helping with recovery after a procedure, our expert therapists support patients to manage long-term conditions, cope with their symptoms and boost their independence and confidence.

Developing our services

We continuously develop

our rehabilitation and therapies services to ensure they meet the needs of our patients, many of whom have complex needs.

This year we launched an out-of-hours telephone service for people with supportive and palliative care needs, giving them instant access to one of our clinical nurse specialists whenever they need advice or support. Exercise classes for heart patients, previously only available for outpatients, have been opened up to inpatients waiting for a heart transplant. The twiceweekly classes help those on the transplant waiting list maintain levels of fitness in preparation for their life-changing operation.

Holistic care has been a central focus this year, with psychological medicine becoming an important part of critical care followup clinics at both hospitals. Long-term inpatients have found 'crafternoons' and an activity trolley especially beneficial.

As part of the focus on overall health and wellbeing, the Optimising Strength and Resilience programme, led by consultant clinical psychologist Dr Anne-Marie Doyle, continued this year. This promotes an integrated approach to physical and psychological health, and includes workshops and staff training sessions. Preventing falls is essential to ensuring patient safety.

This year we rolled out a collection of resources and information across all clinical areas, which has resulted in a 24 per cent reduction in falls Trust-wide.

Whole-person services

Our rehabilitation and therapies service provides care for the whole patient, from exercise rehabilitation to psychological therapies and dietetics.

Our experts in recovery and therapy include physiotherapists, occupational therapists, dietitians, speech and language therapists, and clinical psychologists. We also provide specialist supportive and palliative care, chaplaincy, services for older people, safeguarding adults, complex discharge, and psychiatry.

Working collaboratively as multi-professional teams, our experts are able to consider all the needs of patients as they recover from treatment and tackle daily life, often with a complex or long-term condition.



Exercise programme supports people with lung diseases

People with lung problems can find it difficult to move around without getting breathless, which can be frightening. This can mean they reduce their activity levels, which makes them unfit and even more breathless. Pulmonary rehabilitation can help break this cycle.

Our respiratory physiotherapists run an eight-week, twice-weekly exercise class programme which helps people with lung problems to cope with their breathlessness and to feel stronger and fitter.

Patients who start the programme have their current exercise ability checked, to give a baseline to work from. Each one-hour session involves a warm-up and then a series of exercises using equipment such as a treadmill, rowing machine and exercise bike. Educational sessions also run alongside the classes, covering topics such as airway clearance techniques, advice on inhalers, and stress management and relaxation.

Anthony Page-Wood, 67, has been a patient at Royal Brompton for more than 30 years. He has alpha-1 antitrypsin deficiency, a genetic lung disease and has had a number of operations, including a recent lung reduction procedure. He took part in the pulmonary rehabilitation exercise programme on the advice of his consultant.

Mr Page-Wood explained that the programme helped him in a number of ways: "It was a good experience for me and the benefits are definitely there. The people on the course have a range of lung and respiratory



Anthony Page-Wood

conditions and the programme is tailored to take into account each person's limitations.

"Taking part in the programme has stimulated me to do more exercise and I can see small improvements in my ability. It definitely also helped psychologically, and the group really gelled as we all have something in common."

Our charities

Our hospitals are supported by a number of charities that raise money to support projects that lie outside NHS budgets, but are often vital to enhancing patients' health and wellbeing.



Royal Brompton & Harefield Hospitals Charity

This charity supports initiatives across both hospital sites, raising money for innovative treatment, equipment and research.

Building for Brighter Futures

A £1.1 million appeal to help extend Harefield's intensive care unit (ICU)

Thanks to the second largest appeal in the charity's history, building work on Harefield Hospital's new imaging centre was completed in 2017. Six new bedrooms were added to the unit, with a new MRI/CT scanning room also being funded as part of the appeal, which will benefit an extra 250 critically ill patients each year. Sue Mather, ICU matron/senior nurse, said: "Not only will we be able to treat so many more patients, but little things like a far superior waiting room for families and better staff facilities are what make this project so game-changing. I can't put into words how thankful I am to everyone who donated."

More can be read about this project on page 40.

MitraClip Appeal

Securing £175,000

from a generous anonymous donor to fund 15 life-saving 'MitraClip' procedures for patients too weak for heart surgery

Celia Coote, who benefited from the procedure, said: "I was far too unwell to have more surgery, yet my mitral valve was leaking. A clip was the only chance I had. My daughters and husband had prepared themselves for the real possibility that I might die.

"As soon as the clip was fitted, my heart started to recover. It saved my life. I count my blessings every day."

Heart of **PICU** Appeal

Raising £65,000 to create a better environment for parents of critically ill children on Royal Brompton's paediatric intensive care unit (PICU)

Work began in March 2017 to renovate the nurses' station and reception area. The new space provides a more open and accessible space for parents, and gives staff a much-needed private space to discuss delicate matters. A new medicine delivery system helps staff deliver care efficiently.

Lizzie Biggart, paediatric senior nurse and service

manager, said: "I am so very delighted that we have achieved a space in which people can feel confident the environment matches the expertise of the staff. It really achieves a large amount of work in a small space; it's beautiful and impressive and has been a great morale boost!"



Enhancing Critical Care

Raising £86,000 to support the building of two specialist isolation rooms in Royal Brompton's adult intensive care unit (AICU) to treat the hospital's most critically-ill patients

In January, staff welcomed their first patients into the fully upgraded

rooms, which were designed in response to feedback from staff, previous patients and their families.

The spacious rooms feature floor-to-ceiling photography and a comfortable furnished area for family members – a UK first in intensive care. Matron Jo Tillman said: "The new rooms are fantastic, as family can be present and not feel remotely like they are in the way.

"Revamping the non-clinical spaces will help make it more user-friendly and create a better working environment."

The Brompton Fountain

The Brompton Fountain supports children under the care of the Trust, by funding medical equipment and improvements to facilities, focusing on boosting the overall experience for young patients and their families. The charity works closely with paediatric teams to provide activities, services and specialist resources that are not normally provided by the NHS.

Among other activities held during the 2017/18 financial year, the charity:

- worked with cardiac nurse specialists to provide home blood testing machines for young patients. The machines help families to reduce their trips to hospital and makes sure children avoid unnecessary time away from school.
- held support events and fun activities for families. Events such as an annual barbecue, art workshops and pizza evenings provide a fantastic opportunity to meet other

families who have been through similar experiences.

funded various projects and purchased new items throughout the hospital through events and appeals – including the portable monitors featured on page 31.



Friends of Royal Brompton

The Friends of Royal Brompton have been supporting the hospital for 55 years and run two shops, operate a trolley service for families on the wards, and host fundraising events throughout the year.

During the 2017/18 financial year, the charity funded a variety of projects, including raising **£28,400** towards a one-of-a-kind simulation doll to help train doctors to detect lifethreatening heart conditions in babies, and a donation of **£9,240** towards production of a post-operative bra to aid women's recovery after cardiothoracic surgery.

Friends of Harefield Hospital

Harefield has a sister charity, the **Friends** of **Harefield Hospital,** that runs a popular refreshment pavilion onsite throughout the year.

During the 2017/18 financial year, the charity funded amenities within the hospital, such as ward chairs, specialist mattresses and blood pressure monitors.

They contributed to numerous charitable appeals, including the ambitious renovation of the imaging centre, as well as donating a state of the art **£45,000** mannequin for clinical simulation training. (page 44)

The healing arts

rbaharts



Delivered with funding from the Royal Brompton & Harefield Hospitals Charity, rb&hArts delivers a long-term creative programme to increase wellbeing, enhance patients' experiences and improve the healthcare environment.

In a typical year, rb&hArts runs 250 workshops in craft, music and visual arts, engaging 5,000 participants, and employing 30 artists.

Enhancing the patient experience

Music is particularly effective in healthcare settings, with evidence to support its efficacy in reducing pain and anxiety during the post-operative period¹.

Live and participatory music making

Since January 2018, Adrian Garratt and Stac have played to inpatients at both hospitals, taking requests and providing moments of light relief for patients, families, visitors and staff.

Vocal Beats

Vocal Beats is an innovative music project for hospitalised young people from infancy to 16 years. It offers a range of personalised activities including bedside singing and vocal coaching, music tech, lyric writing, recording and beatboxing. In 2017/18, we provided 48 beatboxing workshops and 108 music-making/ singing workshops. Evaluation showed that the project increased levels of happiness, relaxation and confidence in young people. 77

The music sessions break the monotony of ward life. (Patient feedback)

Airborne

Verity Standen, an internationally renowned contemporary composer, was invited to create a new vocal composition to raise awareness of singing for lung health, which was performed in and around the hospital over three days. More than 30 people took part, entertaining patients as well as members of the public in local parks and transport hubs.

"Lovely, uplifting and energising." (Audience feedback)

Crafternoons

Crafternoons bring artists, volunteers and patients together to learn creative skills. Through creating and making together, conversations and relationships of trust emerge, reducing feelings of isolation and loneliness. Learning new skills builds confidence and selfesteem, and increases resilience.



Made the stay in hospital more enjoyable, less stressful and an opportunity to be creative.

(Patient feedback)

"



Improving health outcomes through active arts participation

Many people with long-term health conditions can develop mental health problems, particularly depression and anxiety². Participation in the arts has shown to have a positive impact on health outcomes, wellbeing and quality of life³. rb&hArts offers participatory activities to patients to increase self-management, reduce isolation and improve wellbeing.



Akademi and DanceWell

DanceWell is a three-year Big Lottery funded project by Akademi to improve levels of physical and mental health in older adults. In 2017/18, Akademi ran 12 workshops, teaching Kathak (a South Asian dance style) which was then performed to an audience of family and friends. Of those that attended, 65 per cent classified themselves as having a disability or some limitation to their movement, and 95 per cent of participants were aged 65 or over.

Singing for Breathing

Singing for Breathing is a weekly vocal coaching and singing workshop programme to support older adults living with chronic obstructive pulmonary disease (COPD). The workshops help participants better manage their symptoms, offering advice on breath control and management. In 2017/18, the arts team ran 97 workshops.

97 workshops run in 2017/18

My singing each week has given me much confidence and helped my breathing control. (Singing for Breathing participant)

Visual arts

High-quality visual art and design is integral to positive, welcoming and healing environments. Evidence suggests its use in healthcare settings can alleviate anxiety, as well as making a more enjoyable environment for staff.

Permanent collection

The arts team manages a collection of more than 1,000 works of art across both hospitals, comprising paintings, prints, photography, drawings, textiles, site specific commissions, sculpture and new media work. The collection will be audited over the next three years to ensure all pieces are well cared for and accessible, with a view to finding new ways to use them to engage with patients and staff.

Bespoke commissions

Professor Anita Simonds, consultant in respiratory and sleep medicine, invited artist Steven Appleby (who decorated the sleep centre in 2016) to create a mural for a corridor in Royal Brompton's respiratory wing. Appleby created a colourful dreamscape to welcome patients and new artworks for the bedrooms.

Artist and cystic fibrosis patient Kate Hughes presented the body of work she created during a 'virtual' residency with the Trust – Message in a Bottle – which included drawings, animations and an interactive installation in Royal Brompton's Fulham Wing, which invited visitors to leave their own message in a bottle.

¹ Hole, J et al. 'Music as an aid for postoperative recovery in adults: a systematic review and meta-analysis', The Lancet, 2015;386:1659–71.

² 'Creative arts as a public health resource: moving from practice-based research to evidence-based practice' (Clift), Perspectives in Public Health, 2012;132:120–7. ³ Long-term conditions and mental health: The cost of co-morbidities, Kings Fund, 2012. Our profile in the media

Our profile in the media

The Trust's communications team works closely with newspapers, television and radio broadcasters, digital and social media and other channels to share breakthroughs in treatment, innovations in research, and the experiences of patients cared for by our expert teams.

Here are some highlights from 2017/18:

May 2017

The **Daily Mail** highlighted the importance of professional advice for those with suspected food allergies. Consultant allergy dietician Dr Isabel Skypala explained why a referral for proper testing is better than simply cutting foods out: "Unless you're good at replacing [the food you cut out] with things that contain similar nutrients, you could be doing more harm than good."

June 2017

The **Evening Standard** covered "a breakthrough in treating children with the



Dr Isabel Skypala

devastating lung disease cystic fibrosis, trialled internationally including at Royal Brompton Hospital." A combination of two drugs was found to improve lung function in children aged six to 11 within 15 days and was the first to target the underlying causes of the disease rather than the symptoms.

August 2017

Research led by consultant thoracic surgeon Mr Eric Lim, which showed a rise in people who have never smoked undergoing lung cancer surgery at the Trust, featured in the national media. Mr Lim explained that as lung cancer is harder to diagnose without the "red flag" of a cigarette habit, higher death rates could be expected. The story featured in the The Times, Daily Express, The Independent and the **Evening Standard**.

September 2017

The Trust's cardio-oncology clinic was featured on **BBC Radio 4's** Inside Health and Today programmes. Consultant cardiologist Dr Alexander Lyon was joined by consultant oncologist Dr Susannah Stanway from the Royal Marsden Hospital, to discuss the effects of cancer treatment on the heart.

October 2017

Pioneering lung volume reduction procedures, undertaken at Royal Brompton, featured on **BBC Radio 4's** Inside Health programme.

BBC

>>

Dr Nick Hopkinson, honorary consultant chest physician, explained to the programme's million listeners how the procedures can benefit patients with chronic obstructive pulmonary disease (COPD).

November 2017

NHS England's decision to continue commissioning congenital heart disease services at Royal Brompton Hospital was covered by the Evening Standard, and ITV London TV news, other regional and TV news programmes, and Health Service Journal (HSJ). The Evening Standard described the decision as a "dramatic reprieve" for Royal Brompton and described how, under the Trust's proposal, "a world class heart and lung centre would be built beside St Thomas' campus." (page 9)

December 2017

The Mail on Sunday featured patient Selwa Hussain – Harefield's first total artificial heart patient to be able to leave the confines of the hospital for spells at home - Mrs Hussain told the Mail on Sunday: "Harefield have been absolutely magnificent. They came up with a solution that allowed me to stay alive and to see New Year in with my family. For that I am eternally grateful." Further coverage included ITV London, Sky News, the Daily Express, The Sun and Metro.

A **BBC Radio 4** Inside Health special, marking the 50th anniversary of the first heart transplant, covered possible future developments in the field. Director of transplantation, Mr Andre Simon, told presenter Dr Kevin Fong that mechanical devices are evolving all the time, but the challenges of reproducing the heart artificially were significant. Mr Simon explained: "The heart beats 70 times per minute, so you can calculate how many times in an 80-year-old it has already beaten. And it cannot fail... so you need a very, very dependable device."

January 2018

Royal Brompton's ECMO (extra-corporeal membrane oxygenation) service was the headline item on Channel 5 News, during an item on flu, as they visited the hospital's intensive care unit to look at how 'a specialist unit is treating patients hardest hit by the winter flu outbreak.' Health correspondent Catherine Jones reported, to a national audience of around one million, that "when all else fails, and flu is about to claim someone's life, ECMO is the machine that can save them – technology so specialised that Royal Brompton is one of a network of just five hospitals where it's available."

February 2018

ITV London visited Royal Brompton's paediatric cardiology clinic to catch up with 14-year-old patient King Elyon Hutchinson, who made news in 2003 when he became the youngest patient to have a pacemaker fitted, at just two days old. Explaining how King Elyon has had "seven major operations" since then, ITV London reported that all his care has come under the same paediatric consultant, Dr Jan Till.

Clinical trials of targeted lung denervation (TLD) – a procedure which destroys parts of the vagus nerve in the lungs and can help patients with COPD breathe more easily - featured in the Daily Mail. Patient Kim Burgess, a former police officer, explained to the Mail how taking part in the TLD trial, led by consultant physician Professor Pallav Shah (page 23), resulted in an improvement in lung function of 10 per cent: "massive for lungs as poor as mine."



Mr Toufan Bahrami

March 2018

Harefield patient Mike Adamson shared his experience of having a new type of aortic valve replacement, performed by consultant cardiac surgeon Mr Toufan Bahrami, with the Daily Mail. With the new procedure, patients only need to spend 15 to 20 minutes on a heartlung machine and also recover from the operation faster. Mr Adamson told the Mail: "I had the surgery in December at Harefield... I only needed to stay in hospital for a week, with just some discomfort on the first day. Three weeks after the surgery I could walk 15km and by four weeks I was able to go for my first gentle jog which was amazing."



Governance

As a foundation trust, we are governed by an elected council of governors and independently regulated by NHS Improvement. We have around 11,000 members who we regularly consult on Trust strategy and service planning.

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, 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. Members are drawn from three constituencies: patient, public and staff. Independent regulation of the Trust is undertaken by NHS Improvement.

The council of governors appoints the external auditor. A sub-committee, the nominations and remuneration committee, considers the appointment of the chair 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

The Trust is required by law to produce a Quality Account, which is an annual report to the public about the quality of services delivered. The Quality Account 2017/18 is available on the Trust's website at **www.rbht.nhs.uk/qa** and on the NHS Choices website. Visit our website to read the Trust's full annual report and accounts for 2017/18 – www. rbht.nhs.uk/ report-accounts – and for more information about our policy and performance – www.rbht.nhs. uk/performance

Our Board

Executive directors – full year

Robert J Bell Chief executive

Dr Richard Grocott-Mason Medical Director/Senior Responsible Officer

Robert Craig Chief operating officer (part year)

Jan McGuinness Chief operating officer (part year)

Richard Paterson Associate chief executive – finance

Joy Godden Director of nursing and clinical governance

Nicholas Hunt Director of service development

Non-executive directors

Sally Morgan, Baroness Morgan of Huyton Chair

Lesley-Anne Alexander CBE Professor Kim Fox

Luc Bardin

Kate Owen

Dr Andrew Vallance-Owen MBE Richard Jones Mr Philip Dodd

Non-executive directors – part year

Neil Lerner Deputy chair (to 31 May 2017)

Philip Dodd (to 26 July 2016)

Simon Friend (from 1 August 2017)

Mark Batten (from 1 November 2017)

Our council of Governors

Public Governors – full year

Mr George Doughty NW London (appointed as lead governor February 2018)

Mr Anthony Archer Bedfordshire and Hertfordshire

Mr Robert Parker South of England

Ms Jennifer Sano Rest of England and Wales

Patient and Carer governors

– full year

Mrs Brenda Davies Bedfordshire and Hertfordshire

Dr Ejikeme Uzoalor Elsewhere

Ms Caroline Karlsen Representing patients and carers

Mr Edward Waite South of England

Mr Stuart Baldock Elsewhere

Patient and Carer Governors

– part year

Mrs Chhaya Rajpal NW London

Mr Tim Mack NW London (served as lead governor to February 2018)

Mr Jeremy Stern London

Sean O'Reilly Bedfordshire and Hertfordshire

Staff Governors – full year

Dr Claire Hogg Mrs Elizabeth Henderson Dr Laura Price Mrs Anne McDermott

Staff Governors

– part year

Dr Charlie Butcher

Mr Steve Caddick

Appointed governors – full year

Mrs Victoria Borwick London Borough of Kensington and Chelsea

Cllr John Hensley Royal Borough of Hillingdon

Professor Mary Morrell Imperial College London

Royal Brompton & Harefield NHS Foundation Trust accounts for year ended 31 March 2018

Statement of comprehensive income

Statement of financial position

	2017/18 £000	2016/17 £000	
Operating income from patient care activities	341,290	329,780	
Other operating income	78,653	47,550	
Operating expenses	(398,498)	(386,151)	
Operating surplus/(deficit) from continuing operations	21,445	(8,821)	
Finance income	55	42	
Finance expenses	(1,348)	(1,038)	
PDC dividends payable	(6,762)	(6,063)	
Net finance costs	(8,055)	(7,059)	
Other gains	61,973	27,147	
Surplus for the year	75,363	11,267	
Other comprehensive income Will not be reclassified to income and expenditure:			
Revaluations of property, plant and equipment	6,693	(9,176)	

	31 March 2018 £000	31 March 2017 £000
Noncurrent assets		
Intangible assets	13,623	14,983
Property, plant and equipment	194,704	186,525
Investment property	101,210	37,294
Total non-current assets	309,537	238,802
Current assets		
Inventories	10,290	9,957
Trade and other receivables	83,190	45,950
Cash and cash equivalents	20,847	32,668
Total current assets	114,327	88,575
Current liabilities		
Trade and other payables	(54,200)	(49,566)
Borrowings	(18,665)	(5,610)
Provisions	(1,713)	(2,011)
Total current liabilities	(74,578)	(57,187)
Total assets less current liabilities	349,286	270,190
Non-current liabilities		
Borrowings	(49,192)	(52,147)
Provisions	(597)	(638)
Total non-current liabilities	(49,789)	(42,785)
Total assets employed	299,497	217,404
Financed by		
Public dividend capital	108,604	108,567
Revaluation reserve	54,587	47,894
Income and expenditure reserve	136,306	60,943
Total taxpayers' equity	299,497	217,404

82,056

2,091

Total comprehensive income

for the period

60



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