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# Case Notes

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News • Case Studies • Insight

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From Royal Brompton & Harefield Hospitals • London

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*Spring/Summer 2018*



RB&HH  
SPECIALIST CARE

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# Welcome to the Spring/Summer 2018 edition of *Case Notes*



**David Shrimpton**  
Managing Director,  
RB&HH Specialist Care

The latest edition of our magazine features a range of articles to update you on our most recent services and news, including the Inspiris Resilia valve service at Harefield Hospital, our severe emphysema service, and the new thoracic surgery device, the PlasmaJet.

The private patients' team has gone from strength to strength over the last year, continuing to deliver a first-class service whilst we refurbished our Harefield Hospital private patient facility and took steps to improve and expand the private patient service. Their dedication is what makes our service a success and helps build on our legacy for being a world-leading centre of specialist heart and lung care.

privatepatients@rbht.nhs.uk  
www.rbhh-specialistcare.co.uk

  
**RB&HH**  
SPECIALIST CARE

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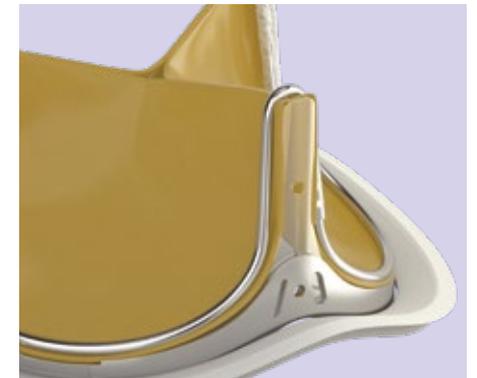
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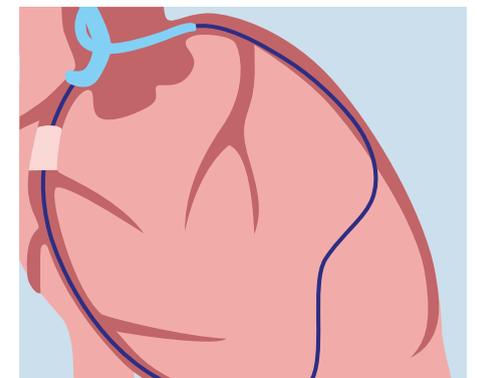
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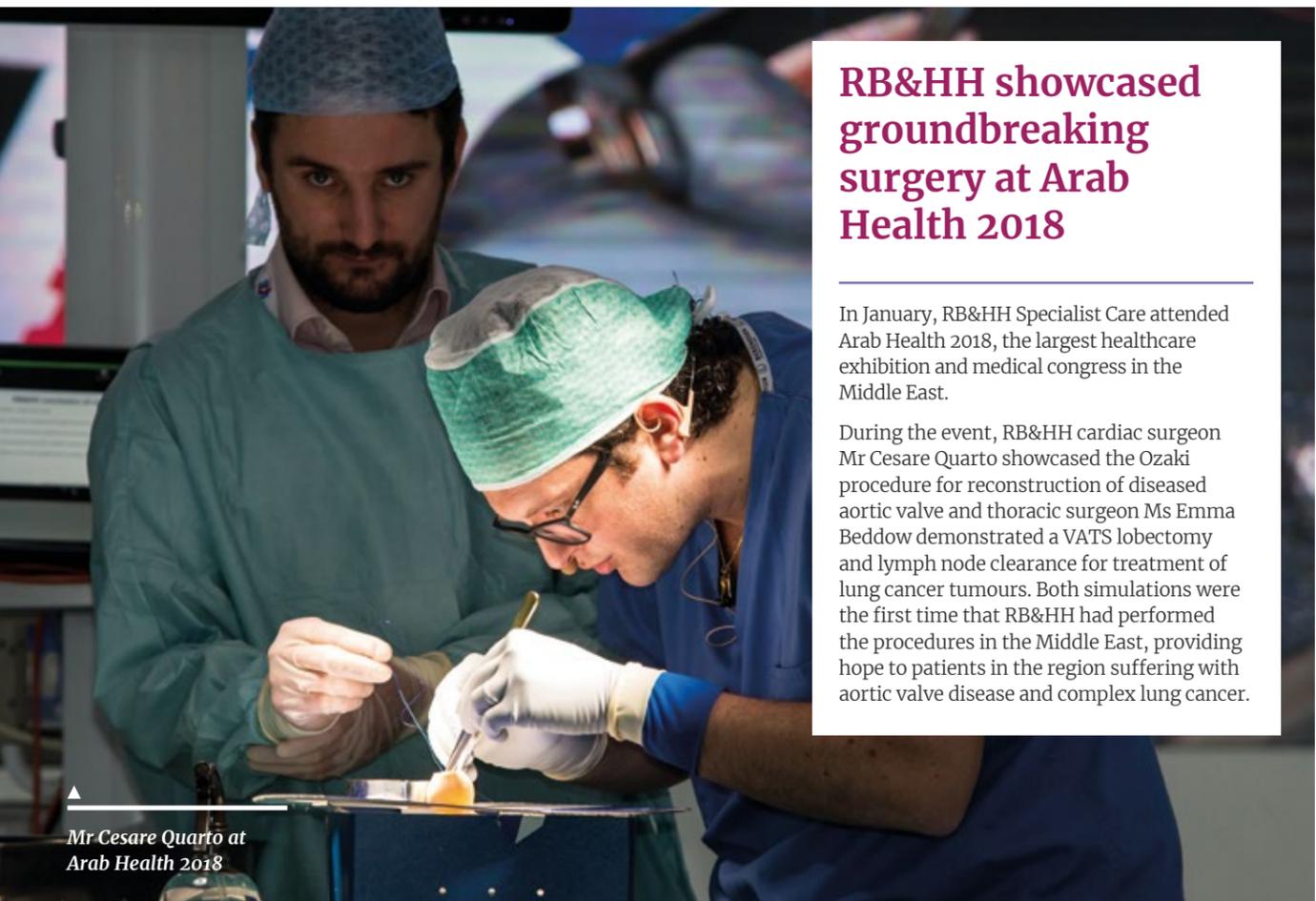


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# What's new at RB&HH?



## RB&HH showcased groundbreaking surgery at Arab Health 2018

In January, RB&HH Specialist Care attended Arab Health 2018, the largest healthcare exhibition and medical congress in the Middle East.

During the event, RB&HH cardiac surgeon Mr Cesare Quarto showcased the Ozaki procedure for reconstruction of diseased aortic valve and thoracic surgeon Ms Emma Beddow demonstrated a VATS lobectomy and lymph node clearance for treatment of lung cancer tumours. Both simulations were the first time that RB&HH had performed the procedures in the Middle East, providing hope to patients in the region suffering with aortic valve disease and complex lung cancer.

Mr Cesare Quarto at Arab Health 2018

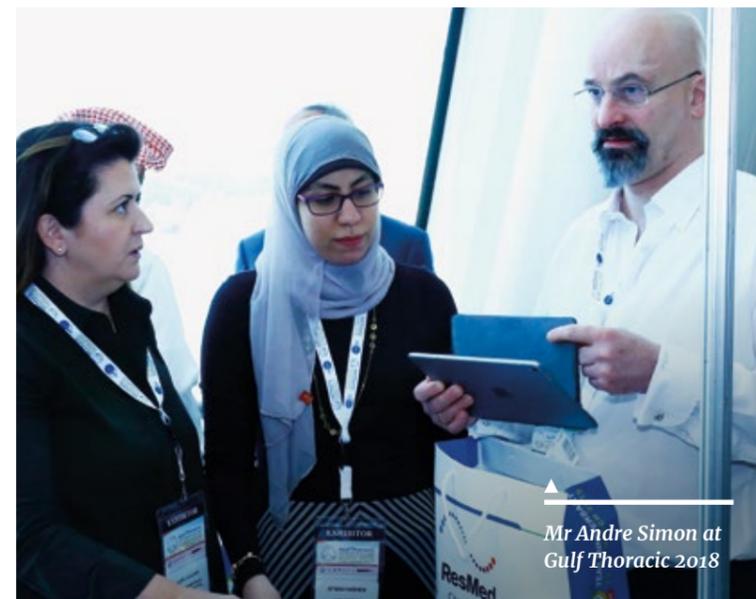
## Clinical observers from Kuwait

RB&HH were pleased to welcome consultants Dr Aliah Khesroh and Dr Faisal Al Roumi from Kuwait, who had a wonderful experience during their 2 month clinical observership with Royal Brompton Hospital. They undertook a tailored education and training programme with the RB&HH cardiovascular magnetic resonance unit and adult congenital heart disease team.

RB&HH Specialist Care offers intensive clinical training programmes to physicians wishing to further develop their expertise in certain interventional specialities.



Dr Khesroh and Dr Al Roumi with RB&HH's Managing Director David Shrimpton and Business Development Manager Ruku Bibi



Mr Andre Simon at Gulf Thoracic 2018

## RB&HH consultants present medical innovations to UAE's Ministry of Health

A demonstration led by world-leading medics from Royal Brompton & Harefield Hospitals focus on new diagnostic techniques.

With the increasing prevalence of respiratory diseases in the Middle East, consultants from Royal Brompton & Harefield Hospitals (RB&HH) highlighted the latest medical innovations at the UAE's Ministry of Health and Prevention Training and Development Centre.

The session was led by Mr Andre Simon, director of heart and lung transplantation and ventricular assist devices and consultant cardiac surgeon, and Dr Peter George, a consultant respiratory physician.

## ECMO service redesign

A redesign of the RB&HH's ECMO (Extracorporeal Membrane Oxygenation) service has led to a 60 per cent increase in referrals, offering highly specialised life support techniques to more patients than ever before.

ECMO supports recovery after major lifesaving surgery or life-threatening illness by oxygenating blood outside the body – effectively doing the work of a patient's lungs and enabling theirs to rest.

Last year the Trust's ECMO service was redesigned and remains one of just five commissioned centres in the UK. The revamped service has greater capacity, with 73 patients being brought to Royal Brompton's adult intensive care unit for treatment in the past year, up from 48 the previous year.

Mr Richard Trimlett, consultant adult cardiac surgeon at Royal Brompton says that ECMO is the intensive care service of the future: "This truly is where the future of the specialist cardiac hospital lies – in these high-end, highly specialised services, carried out at a very few centres, to the very highest standards. We have as much capacity to provide ECMO as the demand for it will dictate."



# AORTIC VALVE REPLACEMENT PATIENTS BENEFIT FROM THE NEW INSPIRIS RESILIA VALVE

Harefield Hospital is one of the first centres in the world to implant the Edwards Lifesciences® Inspiris Resilia tissue valve; estimated to last up to 30 years. This new valve is implanted in aortic valve disease patients using a keyhole technique, an approach that remains unique to Harefield Hospital as other UK centres use a more invasive approach.

The valve options available for Aortic Valve Replacement (AVR) are rapidly evolving. Harefield Hospital is one of a few experienced specialist centres in the UK pioneering the new Inspiris Resilia valve; the first in a new class of resilient heart valves.

Heart valve disease is one of the most common types of heart disease and the chances of developing heart valve disease increase with age. Around 20,000 Britons have heart valve surgery annually — and in 30–40 per cent of cases it is a problem with the aortic valve, which controls blood flow from the heart to the rest of the body.

The aortic valve can become calcified over time; this then restricts the valve from opening and closing properly. Or it becomes flabby and loose so that blood flows back into the heart. The aorta can also enlarge and start thinning which puts it in danger of rupturing. If left untreated, a poorly performing aortic valve can seriously reduce a patient's quality of life and can lead to heart failure and ultimately death.

When the aortic valve function is impaired, the heart has to work much harder and a patient can experience symptoms such as chest pain, tiredness, breathless and dizziness as not enough oxygenated blood is pumped around the body.

The faulty flaps of the aortic valve can be repaired, but often the valve is too badly damaged, so replacement surgery is necessary. The Inspiris Resilia valve is a new type of animal tissue replacement valve which overcomes two key problems with existing options: it avoids the need for blood thinning medication and lasts much longer than other animal tissue valves.

The Inspiris Resilia valve is made from tissue from cow pericardium (the heart lining) and uses new anti-calcification technology which prevents the valve becoming stiff, calcified and damaged.

Typically, a classic tissue valve lasts 10–12 years, after which, replacement is needed. The tissue valve is indicated in patients over 70 years of age. Under 70-year-old patients are given mechanical valves and must take lifelong anticoagulants.

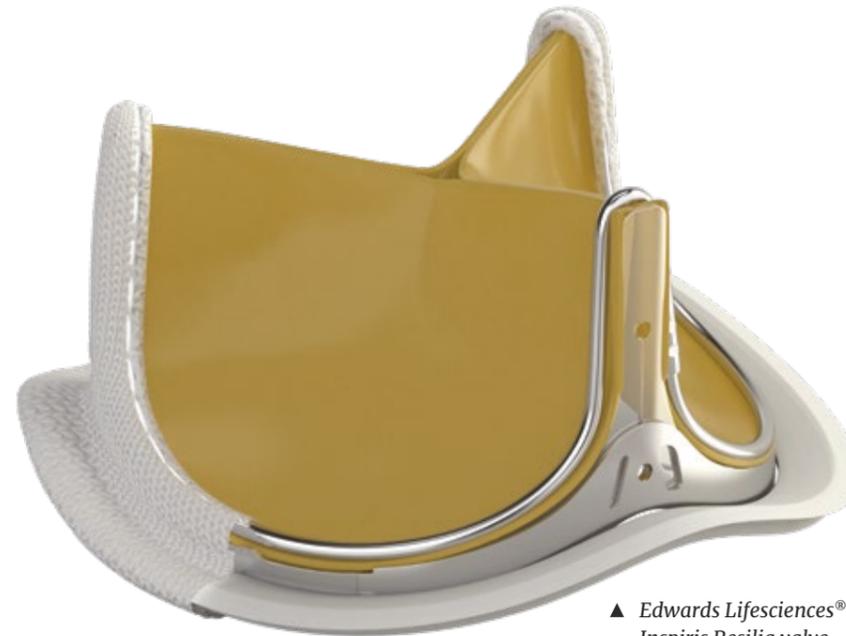
The new valve is designed to provide younger, active patients with an alternative option to mechanical valves that do not require life-long anticoagulation with warfarin. The valve is estimated to last 30 years; due to its resilience it is intended to reduce the chance of patients requiring additional operations in later years and allows patients to remain or regain their active lifestyles and go back to physical work.

The Inspiris Resilia valve is also suitable for female patients planning to have children and paediatric patients who typically would have a mechanical valve implanted and remain on anticoagulant drugs.

Mr Bahrami commented, "We want to offer the best treatments to our patients that give them the very best long-term outcomes. We are very proud to pioneer this exciting development for young patients who need an aortic valve replacement. This new valve is an absolute game-changer because it lasts three times as long as conventional valves. Instead of offering animal tissue valves only to the over 70s, we can now offer them to much younger people and spare them a lifetime on anticoagulant drugs."

## Inspiris Resilia valve advantages:

- The new valve provides younger, active patients with an alternative option that does not require life-long anticoagulation with warfarin
- Estimated to last 30 years; the valve reduces the chance of additional operations in later years
- Made from bovine pericardium specially treated so that calcium doesn't build up on it as quickly as a classic tissue valve
- The minimally invasive nature of keyhole surgery used to implant the valve means the patient does not have scarring along the middle of the chest
- Recovery is quicker than a sternotomy which can take up to eight weeks



▲ Edwards Lifesciences®  
Inspiris Resilia valve

## The procedure

In total the surgery takes up to two hours. The patient is connected to a heart-lung bypass machine which takes over the heart's function during the operation. The aorta is opened, the diseased calcified valve is cut away, and right size of valve is selected. The Inspiris Resilia valve is stitched into place then the heart is started again. The aortic valve restores its normal function straight away and the patient becomes symptom free. Most patients can go home within five–seven days following surgery.

To find out more or book an appointment at Harefield Hospital please call 020 3131 6858 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)



Mr Toufan Bahrami  
Consultant cardiac surgeon

Mr Bahrami is internationally recognised in the field of minimally invasive and endoscopic surgery and is the lead implant surgeon at Harefield Hospital. To date he has successfully implanted nine patients with the new Inspiris Resilia valve.

Together with a team of heart specialists, Mrs Nolan's aortic valve replacement surgery was led by Mr Bahrami and Mr Jullien Gaer, consultant cardiac surgeon. Commenting on Mrs Nolan's procedure, Mr Bahrami said, "We replaced the patient's aortic valve through keyhole surgery, using just one small incision, in less than two hours. This technique is minimally invasive and avoided us having to perform major open heart surgery."

## PATIENT CASE STUDY



New Edwards  
Lifesciences®  
Inspiris Resilia valve  
implanted using a  
minimally invasive  
keyhole technique.

Mrs Nolan is 45 years old and works full time in a role requiring regular overseas trips. She has always been very active and enjoys walking at least 10km on a daily basis.

In 2006, Mrs Nolan was rushed to hospital after suffering heart palpitations at work. Following several heart tests, she was referred to her GP to monitor her for ectopic palpitations. Soon after her referral, she was rushed to A&E as the palpitations were resulting in her developing panic attacks. Further tests showed Mrs Nolan had a bicuspid aortic valve which was leaking. Mrs Nolan was told that the ectopic palpitations had nothing to do with the defective valve and so she was referred for yearly check-ups with her local cardiologist.

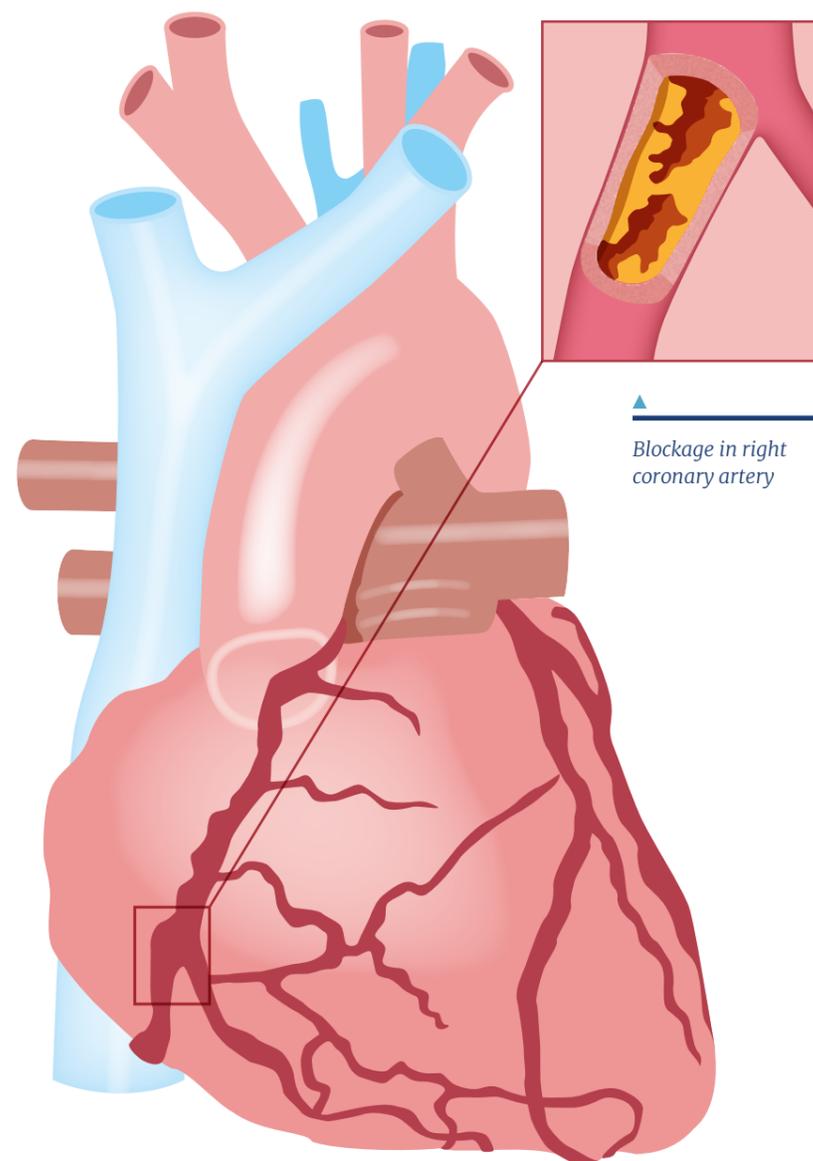
For 11 years, Mrs Nolan did not experience any further symptoms. However, her palpitations began to worsen and she started to suffer with stabbing pains in her chest, causing her great distress. Eventually in 2016, after a routine check-up, she was told that her aortic valve had to be replaced and was referred to Harefield Hospital for an aortic valve replacement.

Mrs Nolan was referred to Mr Toufan Bahrami, who evaluated her case. He reviewed the classic aortic valve replacement options available, but given Mrs Nolan's age, discussed how she was an ideal patient for the first implantation of the Edwards Lifesciences® Inspiris Resilia valve, using a minimally invasive keyhole technique. Mrs Nolan felt reassured with the benefits and research Mr Bahrami presented and agreed to the Inspiris Resilia valve implantation using the mini aortic valve replacement approach.

Following the surgery, Mrs Nolan immediately felt free of previous symptoms and the thumping pain had completely gone. She was discharged within six days of surgery, reported minimal scarring and recovered well, returning to all of her daily activities within eight weeks. A year on, Mrs Nolan is back to enjoying long walks and holidays with her family. The medical team at Harefield are extremely pleased with her post-operative recovery and agreed a transthoracic echo would be sufficient after a year to keep a check on her aortic valve replacement.

# NEW APPROACHES TO CORONARY OCCLUSION

Patients who experience chest pain or shortness of breath will often find that coronary artery disease is the cause of their symptoms.



▲ Blockage in right coronary artery

Coronary artery disease is one of the top causes of death in the UK and worldwide. It is a result of the build up of fatty substances within the coronary arteries, causing blockages and the arteries to become narrow and rigid. This restricts blood flow to the heart and the supply of oxygen and nutrients, which has a direct effect on the heart's function.

Percutaneous coronary interventions (also known as coronary angioplasty or stenting) are not always possible in complex cases of coronary artery disease and can sometimes leave patients with residual blockages if they have multiple stenoses. Recent studies show that it is advantageous to reopen all arteries that show significant lack of blood flow.

Arteries that have been blocked for 30 days or more, called chronic total occlusion, have been difficult to clear in the past, and the only options were coronary bypass surgery or medical therapy.

However, newer interventional techniques have significantly improved the chances to open such blocked arteries without surgery, and to achieve complete revascularisation.



▲ Professor Pascal Meier  
Consultant cardiologist



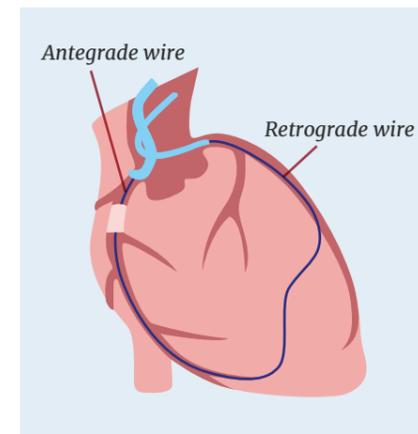
## Antegrade wire escalation approach

In this new approach, guidewires have been specifically designed to penetrate the blockages in the arteries. These stiff coronary wires penetrate the occlusion and negotiate through the blockage. Specific guidewires have been developed which are much more precise, which can penetrate such blockages much better and more safely. This is called the "antegrade wire escalation approach". Over recent months, a multitude of new wires and assisting devices have been developed.

Patients with chronic occlusions that have progressed slowly do not always exhibit typical symptoms such as tightness in the chest, but will experience breathlessness. They often react to this breathlessness by adjusting their lifestyle and becoming less physically active. Only through opening all relevant blockages will patient quality of life improve as symptoms decrease.

**These new techniques to open the arteries improve outcomes dramatically and allow complete revascularisation in most patients.**

For the initial diagnosis in a patient with suspected coronary artery disease, it is generally recommended that a non-invasive test such as a stress echocardiogram is performed. However, if the patient exhibits typical symptoms, it is often preferable to directly perform a coronary angiogram.



## Retrograde approach

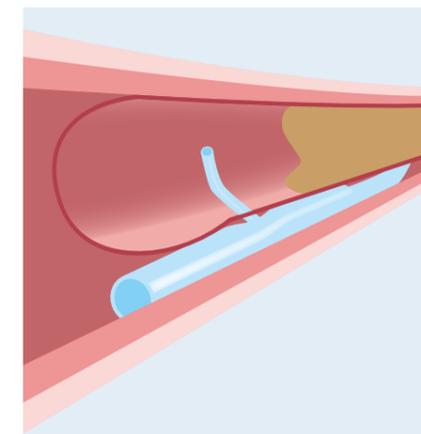
We can now also "attack" such challenging blockages from the usually softer back side, instead of the very calcified hard front side. This is called the "retrograde approach". We have techniques that allow us to advance our wire via tiny almost invisible natural bypass arteries (collateral arteries) to the back side of the occluded vessel and then open it from there.

Prior to any treatment decision, two factors must be taken into consideration: which coronary blockages are primarily responsible for the patient's symptoms and whether the heart muscle is still viable. It is important to select patients carefully to ensure maximum benefit from these procedures.

An alternative and well-established treatment option is Coronary Artery Bypass Graft (CABG) surgery. However, this is a major surgery and not always possible.

Each patient case is discussed by a team of experts at the RB&HH heart team meeting in order to come up with the optimal treatment plan for each individual.

**To find out more or refer a patient please contact the private patients team at +44(0)20 3131 0535 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk).**



## Dissection re-entry approach

A novel technique is the so called 'dissection re-entry approach' where we bypass the blockages which are hard to pass by a controlled dissection and then re-enter into the true lumen further down. This technique is rather revolutionary and has increased our chances to open complex blockages.

## AT A GLANCE

### PROCEDURES

Antegrade wire escalation approach, Retrograde approach, Dissection re-entry approach

### CARRIED OUT BY

Professor Pascal Meier  
Consultant cardiologist

### WHAT PROBLEMS DOES IT SOLVE?

This offers multiple non-surgical approaches to complex coronary artery disease.

### WHO WOULD BENEFIT FROM THESE OPTIONS?

People with angina (exercise induced chest pain) or shortness of breath where we find a completely blocked coronary artery as underlying cause.

# Breathe again: new severe emphysema treatments

Consultants at RB&HH have provided patients suffering from chronic emphysema with a new lease of life thanks to innovative new treatment options.

## AT A GLANCE

### PROCEDURES

Endobronchial valves,  
Lung volume reduction coils,  
Lung volume reduction surgery

### CARRIED OUT BY

Dr Samuel Kemp  
Professor Pallav Shah  
Mr Simon Jordan

### WHAT PROBLEMS DOES IT SOLVE?

This offers a suite of treatments that can be tailored to each individual patient to improve quality of life, lung function, and survival in patients with severe emphysema.

### HOW DOES IT WORK?

Endobronchial valves: Used to restrict airflow to diseased areas of the lung.

Lung volume reduction coils: Coils used to reduce overinflation of the lungs.

Lung volume reduction surgery: Operation used to remove the worst affected areas of the lung so that the healthy areas can work better.

**E**mphysema is a long-term progressive disease of the lungs that causes difficulty in breathing. It is included in a group of diseases called Chronic Obstructive Pulmonary Disease, or COPD. In emphysema, there is damage to the lung tissue which can lead to the lungs becoming over inflated. Common symptoms of emphysema are difficulty breathing, coughing, fatigue and weight loss.

Penny, 63, found she was breathless and struggled doing everyday tasks. "I was very breathless before surgery. It affected my whole life. Prior to surgery I had to use oxygen all the time." She was diagnosed with emphysema nine years ago.

Generally, treatment for patients with emphysema include pulmonary rehabilitation advice (guidance on smoking cessation, patient and carer education, exercise training and breathing retraining) and use of inhaled or oral bronchodilators and glucocorticoids.

For those with more advanced disease, lung volume reduction surgery or lung transplantation may be indicated. However, recent advancements in treatment of emphysema have brought to the forefront minimally invasive alternatives to thoracic surgery.

### Endobronchial valves

One of the newest options for treating emphysema is the endobronchial valve. This is an implantable device designed to obstruct bronchi in diseased regions of the lung and to allow for the expiration of air from the treated lobe of the lung. When used for the appropriate patients, endobronchial valves reduce hyperinflation which allows the patients' relief from their breathlessness.

The valves are inserted into selected airways (three or four valves are usually inserted). They are designed to prevent air inflow during inspiration but they allow air and mucus to exit during expiration. This prevents air entering the diseased parts of the lung, which then collapses so it is no longer in the way of the healthy lung.

Insertion of endobronchial valves is done with the patient under sedation or general anaesthesia and can take as little as 15 minutes. Using a delivery catheter passed through a bronchoscope, a synthetic valve is placed in the target location and fixed to the bronchial wall. Patients may sometimes be given antibiotics and/or steroids after the procedure.

Penny found the treatment changed her life. "Initially there wasn't much change for the first few weeks. Then suddenly, I didn't need the oxygen anymore. Only if I go to the gym for pilates."



Pulmonx Zephyr® endobronchial valve system

### Lung volume reduction coils

Another new innovative service was launched at the Royal Brompton & Harefield Hospitals in London earlier this year. Lung volume reduction coils are implanted into the diseased parts of the patient's lung during a minimally invasive procedure, typically taking only 30- 45 minutes per procedure. Treatment involves two separate procedures, for each lung, four to six weeks apart.

This treatment helps to reduce over-inflation of the lungs in severe emphysema patients, resulting in a reduction in difficult or laboured breathing.

During the procedure PneumRx® coils are used, which are made of a shape-memory material called Nitinol, common in medical implants such as heart stents. The PneumRx® coils are implanted into the airways via a catheter, and once in place are designed to gently regain their shape, gathering up loose, inelastic lung tissue and holding open surrounding airways. Ten or more coils are placed at each procedure to tighten the entire airway network and achieve the optimal effects.

The coils improve a patient's lung function in three ways: firstly, they compress diseased tissue, which provides room for healthier tissue to function; secondly, they re-tension portions of the lung involved in gas transfer, helping to increase the lung's elasticity, which may enable the lung to more efficiently contract during the breathing cycle; finally, the coil tethers open small airways, preventing airway collapse during exhalation.



**I couldn't believe the instant difference - the tightness in my chest had eased.**

*Richard, 53, found a difference right away after surgery using lung volume reduction coils*

PneumRx® coils ▶



**Most patients see significant improvement in exercise capacity, lung function and quality of life.**

*Professor Pallav Shah*

### Lung Volume Reduction Surgery (LVRS)

LVRS is an operation which removes the worst affected areas of the lung so that the healthier parts of the lung can work better. Also, by removing the 'swollen' air spaces, less air is trapped so the chest and diaphragm can relax down to a more normal level and breathing is more comfortable.

A surgeon will make a cut in one side of the chest to use a special tool to cut and staple the lung at the same time. This will seal it and prevent or reduce any air leaks. Patients will be given a general anaesthetic and will stay in hospital for about seven to 10 days to recover.

Lung volume reduction surgery can help patients live longer, increase ability to exercise and improve quality of life, compared with people who don't have the operation.

This is a significant operation and it does carry a risk of complications that could be life-threatening. This is why people will only be selected as suitable for this operation if they meet certain criteria. It can also mean a long stay in hospital to recover from the operation.

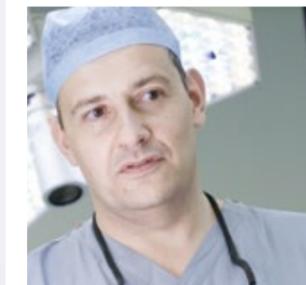
LVRS is only a suitable treatment for a minority of people who have COPD. It is only effective for emphysema and you may not be suitable if you have other lung conditions such as bronchiectasis and asthma.



**Dr Samuel Kemp**  
Respiratory physician



**Professor Pallav Shah**  
Consultant physician



**Mr Simon Jordan**  
Consultant thoracic surgeon

# CHEST SURGERY

## USING GROUNDBREAKING VATS PLASMAJET® SYSTEM

Patients with complex problems in the chest often require a new approach to solve them, so the teams of experts at Royal Brompton & Harefield Hospitals use state-of-the-art diagnostics and technology to provide the best treatment option for them.

At Harefield Hospital, patients with pleural pathology and those with metastatic tumours in the lung can be treated using less invasive and more effective surgical approaches in the form of video-assisted and open procedures using the new PlasmaJet® System. This is a high-energy surgical device which targets the diseased area, assists in reducing the number of tumour cells and provides symptomatic relief.

The PlasmaJet device is simple to use, very efficient and an excellent tool for treating large diseased surfaces. It applies kinetic energy and highly controlled thermal effects to cut through and dissect tissues, layer by layer, stop bleeding and destroy cancer cells safely.

Unlike most other energy devices used in surgery, the PlasmaJet can destroy cancer cells on the surface of organs and tissues without causing damage to the surrounding healthy tissue. This means there is often no need to resect or remove the tissue in these areas which reduces the impact on a patient's quality of life after their surgery and the amount of time they stay in hospital.

The RB&HH lung cancer team works very closely with our specialist oncology colleagues to ensure we explore every option when planning treatment, to enable us to achieve the best outcome for all patients. Each case of lung cancer is discussed at our specialist lung cancer MDT and we agree the optimal management plan for that case.

With the PlasmaJet, surgeons can completely remove or destroy all visible disease without the need for removing large volumes of lung tissue. This potentially may improve survival time and offers the potential for curing these patients. There is no other surgical device that can safely remove and destroy the same amount of cancer cells.

The most common indication for using PlasmaJet is malignant pleural disease such as mesothelioma and possibly other forms

of malignant pleural effusion. It is also effective in patients with benign pathology of pleura such as empyema. In these cases, the device allows the surgeon to dissect abnormally thick layers of the diseased pleura and free the lung allowing it to expand.

In areas of difficult access, the diseased pleura may be treated with PlasmaJet with the aim to evaporate all visible tumour deposits without damaging underlying structures.

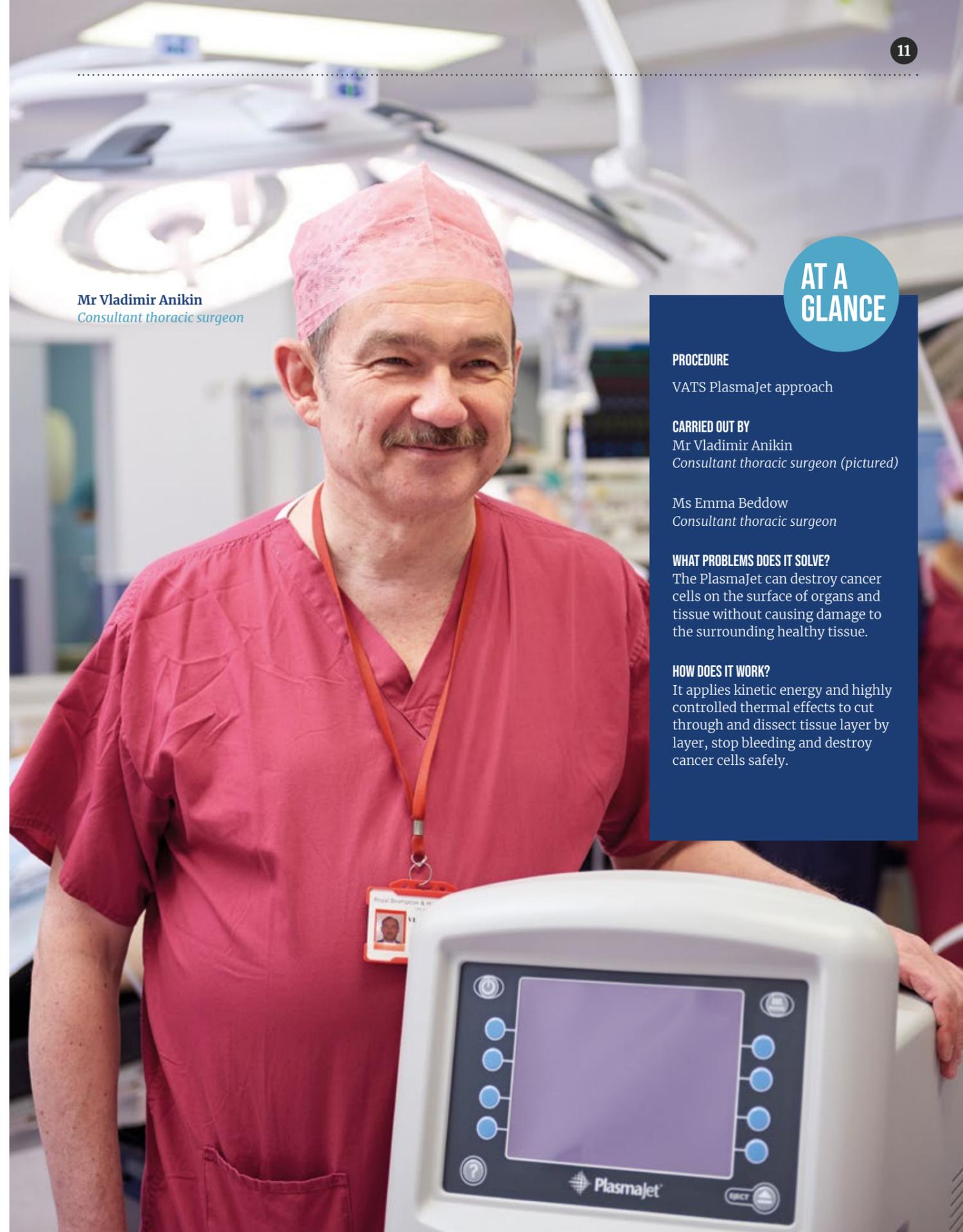
The other indication for PlasmaJet is metastatic tumours in the lungs from various primaries, most commonly from kidney or bowel cancer. In these patients tumour deposits are excised with a stream of plasma with minimal loss of lung tissue underneath. The device allows the surgeon to remove tumours safely and achieve sealing of lung tissue minimising the risk of air leak after surgery. It works in a similar way to a laser, but the surgical team does not need to wear protective glasses.

The use of PlasmaJet in chest surgery is new but the team of thoracic surgeons at Harefield Hospital has already had quite encouraging results after using this novel technology in a very difficult group of patients.

### The benefits of PlasmaJet surgery:

- PlasmaJet offers surgeons the ability to perform no-touch, atraumatic surgery
- The technology provides fast and precise control of bleeding, leaving a wound sealed
- PlasmaJet can be used during both conventional and keyhole surgery, greatly reducing the risk and duration of complex procedures
- Compared to other surgical approaches, this technique can reduce the patient's stay in hospital

To find out more or book an appointment at Harefield Hospital please call 020 3131 6858 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)



Mr Vladimir Anikin  
Consultant thoracic surgeon

## AT A GLANCE

### PROCEDURE

VATS PlasmaJet approach

### CARRIED OUT BY

Mr Vladimir Anikin  
Consultant thoracic surgeon (pictured)

Ms Emma Beddow  
Consultant thoracic surgeon

### WHAT PROBLEMS DOES IT SOLVE?

The PlasmaJet can destroy cancer cells on the surface of organs and tissue without causing damage to the surrounding healthy tissue.

### HOW DOES IT WORK?

It applies kinetic energy and highly controlled thermal effects to cut through and dissect tissue layer by layer, stop bleeding and destroy cancer cells safely.

# CLARITY ON ASTHMA: FENO TESTING

Asthma is a chronic inflammatory disorder of the airways characterised by variable and recurring respiratory symptoms, airflow limitation or obstruction and bronchial hyper-responsiveness.



Many diseases present with symptoms similar to those associated with asthma. If doctors are able to confirm inflammation of the airways, this allows them to rule out other conditions and help confirm an asthma diagnosis.

A revolutionary new diagnostic tool, Fractional exhaled Nitric Oxide (FeNO) testing involves the patient breathing into a hand-held machine used to measure the levels of nitric oxide in their breath. The concentration of nitric oxide in exhaled breath is also known as fractional exhaled nitric oxide and can help to identify airway inflammation. A high level of nitric oxide can be a sign that the airways are inflamed.

In addition, if a patient has been diagnosed with asthma and the use of a preventative inhaler is not stopping symptoms, FeNO testing can be done to evaluate if airway inflammation remains high or undervalued.

Traditional methods of asthma assessment may be unreliable due to the nature of the tests as they are dependent on the efforts of the patient, and symptom assessments are subjective.

FeNO testing can help physicians diagnose accuracy of respiratory symptoms to improve the suggestion of asthma. It can also allow for the appropriate prescription of anti-inflammatory medication (corticosteroids).

**RB&HH Specialist Care FeNO testing service is available at the Royal Brompton Hospital and Outpatients & Diagnostics centre based at 77 Wimpole Street, London.**

**For more information or to make an enquiry please contact the private patients team at +44(0)20 3131 0535 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)**



**Dr James Hull**  
Consultant respiratory physician

Dr James Hull is a consultant respiratory physician with an interest in severe asthma and exercise physiology. His areas of expertise include asthma, cough, shortness of breath, reasons for exercise limitation and unexplained hypoxaemia.



## Research @ RB&HH

RB&HH leads the way with innovative procedures and treatments for heart and lung disease. Here is the latest research from our team of expert consultants.

### European Society of Cardiology highlights pioneering research and patient care at Royal Brompton Hospital

The European Heart Journal published by the European Society of Cardiology and one of the leading cardiology publications worldwide features Royal Brompton Hospital as a 'centre of excellence' for cardiac care.

The report describes Royal Brompton as a "centre which prides itself on leading innovative research whilst providing first class care to patients."

Consultant cardiologist Professor Martin Cowie explained: "We view ourselves as the first place to come to in the UK, and probably in Europe, for many innovations across the board of cardiac disease. If somebody is developing a new drug, diagnostic technique or procedure, we want to be the first into that space when it moves from animal work into first-in-man trials and early randomised trials."

### Funding for Pulmonary rehabilitation study

Dr William Man, consultant chest physician at Harefield Hospital has been awarded £346,500 for a randomised controlled trial to compare different ways of delivering pulmonary rehabilitation – a programme of exercise, education, and support to help patients with chronic lung conditions.

Funded by the National Institute for Health Research (NIHR) as part of their Research for Patient Benefit (RfPB) programme, the study will look at people with chronic lung disease who have been referred to receive Pulmonary Rehabilitation (PR).

The aim is to determine whether minimal equipment classes are as good as those that use specialist equipment in terms of the overall effects on exercise capacity, breathlessness and quality of life for those taking part.

### Trust's research partnership awarded £1.3 million

The Imperial College Academic Health Science Centre (IC AHSC)\* has been competitively awarded £1.3 million to develop a National Institute for Health research London In-Vitro Diagnostics Co-operative (NIHR London IVD Co-operative).

The NIHR London IVD Co-operative is a centre which aims to develop new devices and tests to treat patients. It will bring together researchers and clinicians across the partnership to work collaboratively with patients in identifying where there is need for new diagnostic tests. The centre will also work with industry to improve the effectiveness of current tests and devices, and provide research on their impact.

**For more information on these projects please email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)**

\*IC AHSC is a partnership of Royal Brompton & Harefield NHS Foundation Trust, Imperial College London, Imperial College Healthcare NHS Trust and The Royal Marsden NHS Foundation Trust.



## Harefield Hospital's new look

Harefield Hospital's private facilities have had an update to accommodate for the increased demand to their specialist services. Private, self-funding and international patients can arrange consultations with Harefield Hospital's heart and lung specialists, and be seen in the brand new private patient facilities which include:

- New outpatient consulting rooms and diagnostic suites
- A rapid diagnostics service including MRI, echocardiography, CT, lung function and non-invasive test all available same-day or short-notice
- Specialist heart and lung screening services
- Respiratory and cardiology consultations
- 16 spacious private in-patient rooms

The new private outpatient and diagnostic facilities not only provide access to consultations with our world leading experts, but multiple tests can be scheduled on the same day, in the one location, five days a week. This enables a 'one-stop' approach, removing the burden of multiple appointments and unnecessary travel for patients.

Services that are available for same-day or short-notice appointments:

- Respiratory and cardiology consultations
- CT (cardiac, lung and general)
- MRI (cardiac and general)
- Non-invasive cardiology including cardiac monitoring, exercise tolerance tests and ECG
- Echocardiography (stress and contrast)
- Lung function

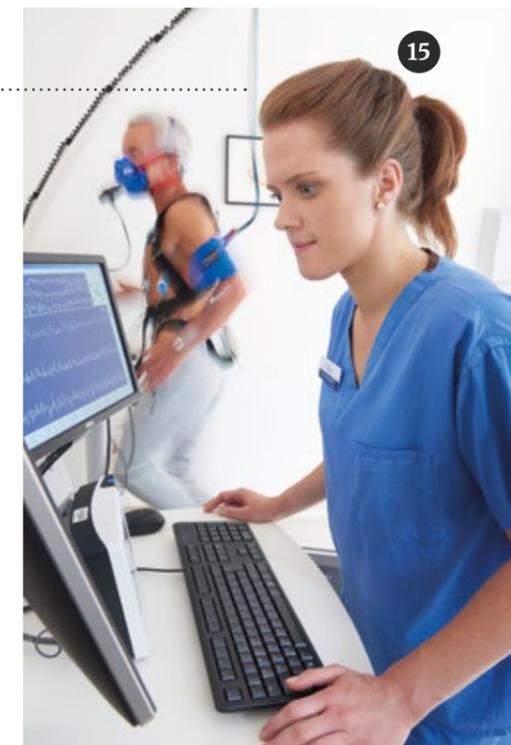


### Contact information

**Opening Hours:**  
8am-6pm Monday-Friday

**General enquires and appointments:**  
020 3131 6859 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk).

*Harefield Hospital is situated in extensive grounds in the countryside just outside London. It is close to the M40, the M25 and within easy reach of Heathrow airport and has ample car parking.*



## ONE-STOP DIAGNOSTICS

At RB&HH Specialist Care, our teams work closely with health professionals, general practitioners and international embassies to facilitate rapid referrals and keep them up-to-date on the latest developments in heart and lung care. Our dedicated team of experts ensure patients referred to us receive the very best in care and clinical expertise.

Internationally renowned RB&HH consultants provide expert assessments using state-of-the-art imaging and diagnostics technology, ensuring patients from the UK and overseas are on the very best treatment path as early as possible.

The specialist care team is always looking to improve the services provided to referrers and patients. Based across three convenient locations, each of our centres has access to outpatient and diagnostics capabilities. This enables us to provide access to a variety of tests at each location which can be scheduled on the same day, five days a week. This 'one-stop' approach provides patients with rapid access to diagnostic testing and minimises the impact of having to attend multiple appointments and unnecessary travel.

We offer a choice of three convenient London locations with state-of-the-art facilities:

- Royal Brompton Hospital, Chelsea
- Harefield Hospital, near Uxbridge
- Outpatients & Diagnostics, at 77 Wimpole Street

At each of our locations, patients will receive an expert assessment using the latest diagnostics and a full reporting service is also given to health providers. The tests available across our locations include:

- MRI for both cardiac and general assessment
- PET-CT including rubidium cardiac imaging, oncological and neurological
- CT across cardiac, lung and general
- Echocardiography (transthoracic, stress and contrast-enhanced)



Advanced Imaging is available at our Outpatients & Diagnostics facility at 77 Wimpole Street. Patients can be referred here for PET-CT scanning; this includes rubidium cardiac imaging. Cardiac PET has several advantages such as improved efficiency, lower radiation exposure, fewer attenuation artefacts and improved resolution.

**To find out more about referring a patient for diagnostics please call 0207 351 8186 or email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)**



## Leaders in collaboration

Since opening 77 Wimpole Street Outpatients & Diagnostics facility in summer 2016, RB&HH Specialist Care has been working to collaborate with select physicians through a new practicing privileges policy.

A small group of non-RB&HH consultants and GPs have been invited to treat patients at 77 Wimpole Street Outpatients & Diagnostics facility. Due to the success of this project, a more comprehensive practicing privileges policy has been developed and RB&HH will look to start allowing other consultants to Royal Brompton & Harefield Hospitals private patient facilities as well.

Those currently invited to practice at 77 Wimpole Street include:

- Consultants holding honorary contracts with RBHT (both cardio-thoracic consultants and also consultants with interest in other specialties)
- Consultants who are recommended by RB&HH consultants from specialties where heart and/or lung conditions are associated as a side effect
- GPs with either a specialist interest in cardiology or respiratory conditions and who have with an existing practice and an excellent reputation

The practicing privileges policy was developed in order to maintain RB&HH's reputation and ensure that consultants being offered the opportunity to practice uphold the Trust's policies and the level of practice is of a suitable standard.

For more information please contact [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)

### RB&HH Specialist Care Honorary Consultants and GPs:

- Dr Sangita Agarwal, consultant physician and rheumatologist
- Dr Farah Alobeidi, consultant neuroradiologist
- Mr George Fayad, consultant ear, nose and throat surgeon
- Dr Renee Kellerman, general practitioner
- Dr Edward Leatham, consultant cardiologist
- Dr Kinesh Patel, consultant gastroenterologist
- Dr Jiri Pavlu, consultant haematologist
- Dr David Silk, consultant gastroenterologist
- Dr Marie-Amélie Lebel-Laurencin, general practitioner

## HOT OFF THE PRESS

Royal Brompton & Harefield Hospitals are renowned internationally for their expertise, standard of care and research success.

Our focus is to provide the very best specialist care for patients of all ages with heart and lung disease. Our consultants and healthcare staff are experts in their chosen field, many having joined us from across the globe to be surrounded by the very best in their profession.

This spring we will be launching our new consultant directory, providing all of the information a patient or referrer may need to ensure they have access to the very best in cardiothoracic care.

In the new consultant directory you will be able to find information about all three of our London-based locations, including the new state-of-the-art outpatients facilities and private ward at Harefield Hospital.

All RB&HH Specialist Care consultants will be presented in this useful book, detailing their clinical training, expertise and availability.

To order a copy of our new Consultant and Specialty Directory please email [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk) or visit [rbhh-specialistcare.co.uk](http://rbhh-specialistcare.co.uk)



# Consultants new to RB&HH

Our multi-disciplinary team of experts ensures RB&HH Specialist Care remains a leader in providing innovative heart and lung treatments. Here are the latest members to join our private care team.

To refer a patient please contact [privatepatients@rbht.nhs.uk](mailto:privatepatients@rbht.nhs.uk)



**Professor Pascal Meier**  
Consultant cardiologist

Professor Pascal Meier is an adult cardiologist specialising in interventional cardiology including the treatment of angina (chest pain) and shortness of breath due to ischaemic or valvular heart problems.

Professor Meier specialises in complex coronary angioplasties (stenting) including Chronic Total Occlusions (CTO), mitral valve repair with transcatheter techniques such as MitraClip, Transcatheter Aortic Valve Interventions (TAVI), Left Atrial Appendage (LAA) closures and closure of Patent Foramen Ovale (PFO). Professor Meier's research interests include promoting coronary collateral arteries in the heart, also known as "natural bypass arteries", as well as testing novel cardiac procedures and devices.



**Professor Thomas F. Lüscher**  
Consultant cardiologist

Professor Lüscher is an active general and interventional cardiologist with a broad clinical scope and large experience in prevention, coronary and valvular heart disease, percutaneous interventions and heart failure. He has a broad clinical interest in the entire field of cardiovascular medicine, from prevention (hypertension, lipid disorders, diabetes) to coronary artery disease (angina pectoris, myocardial infarction) and heart failure.

He is an expert in pharmacotherapy and a trained interventional cardiologist, regularly performing cardiac catheterisations and percutaneous coronary procedure (balloon angioplasty and stenting), as well as non-coronary interventions (percutaneous closure of patent foramen ovale, TAVI and renal nerve ablation).



**Dr Samatha Sonnappa**  
Consultant in paediatric  
respiratory medicine

Dr Sonnappa is a consultant in paediatric respiratory medicine who specialises in all aspects of paediatric respiratory medicine including asthma, wheezy infants and children, chronic cough, congenital lung abnormalities and frequent chest infections.

Dr Sonnappa's research interests are in preschool wheeze, asthma and chest infections and her full-time research for her PhD thesis was on investigating sensitive measure of lung functions in pre-school children with frequent wheeze.



**Dr Omar Usmani**  
Honorary consultant physician

Dr Omas Usmani is an honorary consultant physician and clinical senior lecturer with an interest in respiratory medicine including asthma and COPD. His clinical specialist interests are asthma, COPD and chronic cough; he is the group leader of the clinical research group with the airway disease section at NHLI and a principle investigator. He is also a part of the consultant-led RB&HH specialist chronic cough service.

Dr Usmani's research interests include: patients with asthma and COPD, inhalers and inhaled drug delivery techniques, lung imaging, physiology of airways, pharmacology of coughs and molecular biology of inhaled drugs.

# Social news feed

You can keep up to date with all our latest news by following our social media pages on Facebook, Twitter, Instagram and LinkedIn.



For regular updates follow us on our social media pages. You can find us here:

-  @RBHHPrivateCare
-  @RBHHSpecialistCare
-  @RBHHprivatecare
-  Royal Brompton and Harefield Specialist Care

RB&HH Instagram  
24th January

## Royal Brompton & Harefield Hospitals hosts Dr Amir Al Mukherjee, Deputy Health Minister of Iraq

He was very impressed with our world class facilities and wonderful staff and services!

[#worldleaders](#) [#heartfailure](#)  
[#lungdisease](#)

Read more on 



RB&HH Facebook  
30th January

## Royal Brompton & Harefield Hospitals Specialist Care is feeling hopeful in Dubai

Cardiac surgeon Cesare Quarto took centre stage on day two of the 43rd Arab Health conference in Dubai to perform a demonstration of how the Ozaki procedure works.

[#ozaki](#) [#arabhealth2018](#)

Read more on 



RB&HH Twitter  
31st January

## Ms Emma Beddow demonstrating the VATS Lobectomy for the first time @Arab\_Health

This approach allows patients who have tumours of the lung to have their tumours resected with smaller skin incisions. It does not require rib spreading and has less immediate post-operative pain.

[#lungcancer](#) [#vatslobectomy](#)

Read more on 



RB&HH Twitter  
18th December

## Reducing heart disease through exercise

The effect of physical activity on mortality and cardiovascular disease in 130,000 people from 17 countries: the PURE study – What it all means.

[#heartdisease](#) [#exercise](#)

Read more on 

RB&HH Facebook  
5th January

## Britain's only woman to carry her heart in a backpack

The 39-year-old mother of two has recently undergone a life-saving operation so radical that she now, in effect, carries her heart around in a rucksack. Harefield is the only UK centre using the device.

[#LVAD](#) [#cuttingedgetreatment](#)

Read more on 

RB&HH LinkedIn  
19th February

## New scientific event

Cardiology experts from Royal Brompton & Harefield Hospitals launch a new scientific event in a bid to provide more high-quality learning opportunities for clinicians in the UK. The first annual London Arrhythmia Summit will take place in March 2018.

[#arrhythmia](#) [#rb&hhexperts](#)

Read more on 



RB&HH  
SPECIALIST CARE

## Harefield Hospital Cardiology Study Day

by Harefield Hospital  
supported by Hillingdon Masterclass

Harefield Hospital, in collaboration with Hillingdon Masterclass, invites you to this exciting cardiology study day covering the key clinical topics facing busy front-line primary care practitioners.

Learn about how best to assess ECGs, managing heart failure and AF. Understand the principles of managing angina, cholesterol and familial hypercholesterolemia as well as PCI management and the valve patient.

### DATE AND TIME

Tue 12 June 2018 | 09:30 – 16:00 BST

### LOCATION

Harefield Hospital (Concert Hall),  
Hill End Road, Harefield UB9 6JH

Places are limited and strictly via Eventbrite booking.

Lunch and refreshments will be provided.

To sign up visit

[bit.ly/2JLEN8u](http://bit.ly/2JLEN8u)

or for further information

[www.rbhh-specialistcare.co.uk/gp-events](http://www.rbhh-specialistcare.co.uk/gp-events)



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[www.rbhh-specialistcare.co.uk](http://www.rbhh-specialistcare.co.uk)

  
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SPECIALIST CARE

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