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The Benefits of Cardiac MRI

The Benefits of Bariatric Surgery for Treating Obesity and Type 2 Diabetes

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SYMPOSIUM SERIES 2015

Our 2015 lecture series continues at 30 Euston Square, the home of the Royal College of General Practitioners. The series is led by our renowned consultants, many of whom are from London’s top teaching hospitals, to bring you the latest updates and advances in healthcare. Topics have been tailored with primary care GPs in mind. We hope to see you there.

Saturdays: 9.00am-2.00pm
30 Euston Square
London NW1 2FB

20 JUNE Liver and renal
10 OCTOBER Common concepts in primary care
21 NOVEMBER Musculoskeletal

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The opinions expressed in this magazine are the personal views of the authors and do not necessarily reflect those of Bupa Cromwell Hospital.
Welcome to MEDIsce

Welcome to issue 13 of MEDIsce, with the latest news from Bupa Cromwell Hospital and articles from some of our highly regarded consultants.

We get to ‘the heart of the matter’ in this issue, with articles on the benefits of Cardiac MRI and an overview of heart valve treatment. Bupa Cromwell’s Heart Centre is internationally renowned, and Professor Olaf Wendler, Consultant Cardiothoracic Surgeon, and Dr Ben Airey, Consultant Radiologist, give an insight to the teamwork and leading edge technology that have helped to build our reputation.

We also cover the benefits of bariatric surgery for treating obesity and type 2 diabetes, with a very informative piece from Mr Ahmed Ahmed, Consultant GI and Bariatric Surgeon. Surgical treatment to combat obesity can lead to significant weight loss and improvement of type 2 diabetes, and these interventions are likely to become even more commonplace as obesity continues to rise in the UK.

In addition we give our top tips on using social media to help build your practice, an interview with Dr Yiannis Ioannou, Consultant Paediatrician, and news about our educational programme. Please see the health professionals area of our website for more information.

Amisha Patel is our GP Liaison Co-ordinator and will be the first point of contact for educational events including our symposium series. We welcome our new GP Liaison Shanika Forsyth, who is looking forward to getting to know our GP community over the coming months.

We would be happy to arrange a practice visit at a convenient time for you in order to:
- discuss the latest developments at the hospital
- explore how we can work together more effectively
- introduce new consultants

If you would like to discuss your educational needs and arrange a practice visit, or would like further information, please contact us:

- Caireen Kelly +44 (0)20 7460 5909 caireen.kelly@cromwellhospital.com
- Shanika Forsyth +44 (0)20 7460 5842 07714 368 680 shanika.forsyth@cromwellhospital.com
- Amisha Patel +44 (0)20 7460 5973 amisha.patel@cromwellhospital.com

The GP Liaison team provides a bespoke service for GPs. We can assist you with any enquiries you may have, and help facilitate patient referrals via Cromwell Direct – 0800 783 9229. This is a dedicated line for GPs wishing to refer patients (both children and adults) for appointments with consultants, diagnostic tests and admission to the hospital.

We understand that GPs want to keep up to date with new treatments, diagnostics and services, and work closely with our consultants to coordinate our educational programme. Please see the health professionals area of our website for more information.

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Welcome to the GP Liaison Team

THE

GP LIAISON

TEAM

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Our new 2015/16 Consultant Directory is now available. Divided into tabbed sections for quick and easy reference, the new directory has a detailed index of all our consultants, specialties, areas of interest and languages spoken.

A cancer diagnosis can be life-changing, wherever the disease is found. We understand the challenges facing cancer patients, and have an international reputation for delivering exceptional cancer care that is tailor-made for each patient. An accurate diagnosis is essential to provide the most effective treatment. Our leading edge diagnostic tests, from ultrasound to CT, ambient MRI and PET CT, can often be carried out on the same day as an initial consultation with a Clinical Oncologist, and results are given very quickly afterwards. Treatment – whether chemotherapy, radiotherapy or surgery – is all carried out on-site, so the whole patient journey takes place under one roof.

We offer the most advanced radiotherapy treatments to give patients the greatest possible choice. These include Gamma Knife - the gold standard for treating brain tumours - and TomoTherapy, which is one of the most advanced, integrated cancer treatment systems available.

Our Gamma Knife centre was the first in London, and remains one of only seven across the UK. We were the first in the UK to use TomoTherapy, and remain the only private hospital in the country to use this leading technology.

We also offer high intensity focused ultrasound (HIFU) for prostate cancer, which uses sound waves to heat up and kill cancer cells. This is a minimally invasive approach that has led to excellent outcomes for prostate cancer patients.

For further information go to bupacromwellhospital.com or call 0800 783 9229.

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International SOS has provided worldwide emergency assistance for over thirty years. First set up to provide urgent repatriation after an overseas accident or civil unrest, they now also take a pre-emptive approach, monitoring political situations and putting systems in place to protect companies and individuals from possible emergency situations.

They are a global operation, working night and day from more than 7000 locations in 76 countries to protect their members. When Mayor of London, Boris Johnson opened their new premises in March 2012, he described International SOS as having a “world-class reputation for offering an unmatched service to its clients.”

Bupa Cromwell Hospital has provided consultant-led educational meetings for the medical team at International SOS London for the last two years. These focus on a wide range of topics to help keep the team abreast of the latest diagnostic and treatment developments.

We also offer these Outreach Events to GP practices, tailored specifically to your needs, to provide valuable educational updates and CPD points in the convenience of your practice. We offer catering, flexible timing and a broad range of specialists.

For more information on our Outreach Education service, or to book a session, please contact our GP Liaison Co-ordinator on 020 7460 5973 or email gpeducation@cromwellhospital.com.

Bupa Cromwell Hospital gives a warm welcome to the consultants below who were recently granted Practice Privileges. Our consultants are committed to an extremely high level of care and provide an excellent service to our patients. We are delighted to offer the innovation and expertise of the following new consultants at the hospital:

<table>
<thead>
<tr>
<th>Consultant Name</th>
<th>Specialty</th>
<th>Privileges</th>
</tr>
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<tbody>
<tr>
<td>Dr Harvinder Chahal</td>
<td>Consultant Endocrinologist</td>
<td>Adult Privileges</td>
</tr>
<tr>
<td>Dr Mark Vanderpump</td>
<td>Consultant Endocrinologist</td>
<td>Adult Privileges</td>
</tr>
<tr>
<td>Mr Max Baghai</td>
<td>Consultant Cardiothoracic Surgeon</td>
<td>Adult Privileges</td>
</tr>
</tbody>
</table>

The following two consultants have had their Practice Privileges updated:

Mr Peter Rhys Evans, Consultant ENT Surgeon - adult privileges only
Dr Elizabeth Ashley, Consultant Anaesthetist - adult privileges only
During a meal the food enters the pouch before passing through the channel into the main part of the stomach. The rate at which food passes through depends on the size of the channel: the more the ring is inflated, the narrower the channel and the more difficult it is for food to pass through. There is a small port attached to the gastric band placed just under the skin, which allows fluid to be injected or withdrawn to adjust the size of the opening between the upper and lower parts of the stomach. Approximately 70% of patients experience elimination of hunger following gastric band insertion, and the surgery is recommended for patients with a BMI of 30 or over. It is a proven method of weight loss when combined with a supervised diet, activity and lifestyle programme, and patients lose an average 20–25% of their total body weight during treatment. The surgery takes 30–45 minutes and patients can be discharged on the same day.

**Roux-en-Y Gastric Bypass (RYGB)**

This is an operation where some of the stomach and part of the small intestine are bypassed. The stomach is stapled to leave a smaller pouch, and a section of the small intestine (about 100cm down from the stomach) is attached to the small stomach pouch that has been created. Only small volumes of food can be consumed, and this food then ‘misses out’ on the first 100cm of small intestine, which leads to the release of various gut hormones that cause the sensation of fullness. The small volume gastric pouch, bypass of the remnant stomach and first part of the small bowel, and presence of undiluted bile flow in the first part of the small bowel all contribute to weight loss. They cause early satiety, reduced hunger, possible increase in energy expenditure, and an alteration in eating habits as patients postoperatively prefer foods which contain less fat and sugar.

**Mini Gastric Bypass (MGBP)**

The mini gastric bypass works by restricting the amount of food that can be eaten at any one time, causing malabsorption and altering gut hormones involved in appetite control. The main difference between the RYGB and MGBP is that there is only one join, whereas in the RYGB there are two – an upper and a lower. Because of this the MGBP can be done in less time and with fewer complications. In the first part of mini gastric bypass surgery the stomach is divided and a small tube of stomach created which becomes the pouch, so only a small amount of food can be taken at any one time. The surgeon then brings up a loop of bowel (200-300cm long) and joins this to the lower part of the stomach pouch. Food passes from the pouch into the small bowel, where it meets the digestive juices which have moved downwards from the main part of the stomach, so 200-300cm of small bowel is bypassed before absorption of food can take place, which leads to weight loss.
effective in the resolution of diabetes. This effect occurs even before the start of weight loss. The mechanisms underlying this are currently under study. Weight loss, achieved through reduction of energy intake and increased exercise, is the foundation of treatment for T2D. According to the Look AHEAD trial, sustained weight loss via lifestyle modification results in improvement of diabetic control, but this is difficult to achieve and maintain over time. Medications to reduce hyperglycaemia and cardiovascular risk play an important role, but only up to 10% of patients with T2D manage to improve long term risk of complications.

The SOS study showed that patients had greater mean weight loss after bariatric surgery, reduced incidence of T2D, and less mortality than obesity matched control patients. Randomised clinical trials evaluating bariatric surgery as treatment for T2D have shown that bariatric surgery produced more weight loss and better glycaemic control than typical medical therapy.

Mingrone et al concluded that after 2 years, diabetes remission had occurred in 75% of patients undergoing gastric bypass, whereas no remission of diabetes was reported for the patients who received medical therapy. According to the results of the recent STAMPEDE trial, after 3 years, 56% of patients undergoing gastric bypass achieved glycaemic control with Hba1C < 6.0% or less, compared to 24% of patients undergoing laparoscopic sleeve gastrectomy, and 5% of patients who received intensive medical therapy. A recent meta-analysis of current RCT data published in the BMJ compared surgery with non-surgical treatment for obesity and concluded that at two years, bariatric surgery leads to higher remission rates of T2D. All studies related to the impact of bariatric surgery on the improvement or resolution of T2D demonstrated significant results in favour of the surgical intervention. Nonetheless, more studies are needed in order to evaluate the long term (more than 10 years) impact of bariatric surgery on T2D as well as on its microvascular complications.

Patients have their weight loss assessed 30 days into treatment, and if appropriate a second balloon can be added to ensure a maintained feeling of fullness through the remaining treatment period. After 12 weeks the balloons are taken out during a simple endoscopic procedure.

Conclusions

• Bariatric surgery is considered the most effective method of sustained weight loss, with excellent long term results and reduced complications.
• Laparoscopic adjustable gastric banding, Roux-en-Y gastric bypass and sleeve gastrectomy are the most popular procedures, but mini gastric bypass is rapidly gaining popularity.
• Bariatric surgery results in rapid improvement and remission of type 2 diabetes.
• The Obalon balloon is an excellent non-invasive choice for patients with BMI of 27 and over needing some help to lose weight.

References:

THE HEART TEAM: The cornerstone for a comprehensive heart valve service

The number of patients affected by heart valve disease is rising due to the changing demographics of our population. They not only suffer from symptoms of heart failure, but face an impaired prognosis if adequate treatment is withheld. Early referral and access to cardiac diagnostic tests, as well as the opportunity to offer a comprehensive heart valve service, is the key to an optimal outcome.

Originally heart valve treatment revolved around valve replacement using open-heart surgery, and only patients with severe symptoms and in otherwise good health were considered for this. With improvements in cardiac diagnostics, new surgical and interventional treatment options, and a growing appreciation of the poor prognosis associated with conservative management, heart valve therapy can now be appropriately tailored to patients’ individual needs (1).

I focus here on left sided heart valve disease, as the aortic and mitral valve are more often affected by pathological changes, and highlight the importance of the ‘Heart Team’. The team comprises a heart valve/failure cardiologist, interventional cardiologist, cardiac imaging specialist and a cardiac surgeon. They provide a comprehensive heart valve service, offering innovative therapies such as minimally invasive heart valve repair surgery, as well as transcatheter based interventional techniques (2).

**Echocardiography**

Trans-thoracic and trans-esophageal echocardiography are now the gold standard for cardiac imaging. 3D echocardiography provides exact information on heart valve anatomy, enabling accurate planning for surgical or interventional treatment (3). This information helps to estimate the likelihood of heart valve repair in certain patients, and makes it possible to identify the best therapeutic option.

In addition, heart valve stress echocardiography (performed whilst patients are exercising) allows the identification of patients with significant heart valve disease at an early stage, when treatment will provide the best outcomes and lowest procedural risks.

**Aortic Valve Disease**

The aortic valve is the outlet valve of the left ventricle and part of the aortic root. It is most often affected by calcification of the valve cusps, which results in aortic stenosis. However thoracic aortic disease with dilatation of the aortic root or ascending aorta can also pull the aortic valve cusps apart, resulting in aortic regurgitation (Fig 1).

**Aortic Stenosis**

Aortic stenosis usually affects the elderly (it is found in 4% of octogenarians) and carries a very poor prognosis, with two-year mortality of up to 50%. Historically it was only treated using aortic valve replacement during open-heart surgery. Although less invasive surgical techniques with limited chest openings (Fig 2) and reduced operation times have improved outcomes, the number of elderly patients with co-morbidities has also steadily increased.

**Aortic Regurgitation**

In contrast to aortic stenosis, aortic regurgitation is often not an isolated disease of the aortic valve, but in 70% of cases found as a result of aortic root dilatation. This weakness of the aortic root can be found as a result of isolated structural defects of the aortic wall (e.g. Marfan’s disease), or in patients with combined pathology of the aortic valve and aortic wall (e.g. those with bicuspid aortic valves, Fig 4).

Symptoms in these patients usually arise according to the degree of aortic regurgitation. Their prognostic risk is often determined by the degree of aortic dilatation, and rises steeply after aortic diameters are larger than 45mm. As aortic aneurysms often don’t produce symptoms, early identification of patients at risk and regular assessment of their aortic diameters using echocardiography or computed tomography enables us to determine optimal timing for surgical intervention.

As these patients are often younger and face potential future prosthetic valve complications or treatment of their aorta, they benefit from the option of aortic valve/root repair surgery with full preservation of the native aortic valve (Fig 5). My team achieves 98% - 99% survival in patients who undergo elective surgery before complications occur (3).

**Mitral Valve Disease**

The mitral valve is part of the left ventricle, and mitral regurgitation due to left ventricular dilatation is the most commonly found pathology. Treatment options must maintain the integrity of the mitral valve and the left ventricle by preserving its subvalvular apparatus.

**Mitral Regurgitation**

Mitral valve repair is an optimal treatment option to preserve left ventricular function in patients undergoing mitral valve surgery. Surgical success relies on the team’s experience and access to the newest devices, so
Mitral Valve Stenosis

Previously, stenotic mitral valves were most often found in young patients with congenital abnormalities, or in patients with rheumatic disease. Whilst rheumatic disease has steadily decreased in the UK, there are still a significant number of elderly and foreign patients presenting with this.

Balloon-valvuloplasty is an established treatment option, particularly for young patients with no major concomitant mitral regurgitation. However, in patients with complex disease, mitral valve replacement is usually the only effective treatment option. The subvalvular apparatus must be preserved during surgery, otherwise patients are at risk of postoperative left ventricular failure. Concomitant tricuspid valve disease and atrial fibrillation also need to be corrected, or the atrial appendage closed during surgery, to prevent long-term complications such as right heart failure or stroke.

Prosthetic Valve Failure

In patients with failing biological valve prostheses, transcatheter valve implantation is a new, less invasive and more effective treatment option. This has been more challenging than for the aortic valve due to the complex anatomy and its interaction with the left ventricle. Multiple techniques are currently under observation and the MitraClip™ is currently the most advanced device used, but this has limitations.

Conclusions

Given the growing number of patients suffering from heart valve disease, and the increasing surgical and interventional treatment options available, heart valve treatment is best provided by an established Heart Team of surgeons and cardiologists. This allows optimal, timely diagnosis, and individualised care not only in the acute treatment, but also with respect to future follow-up and post-operative medical therapy.

Excellent outcomes rely on an early, accurate diagnosis, and while conservative treatment may be appropriately recommended in the early stages, patients should be discussed by a Heart Team so that optimal timings for more invasive treatment are not missed.

The co-contributors to this article are:
Mark Management MSc PhD, Consultant Cardiologist
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Professor Philip MacCarthy BSc MRCPath (Hons) PhD FRCP, Consultant Cardiologist

References


What made you want to become an ODPP?

I was six years old when I realised I wanted to work in healthcare. I was a badger and a cadet in St John’s Ambulance, and one of the first people to get the Grand Prior Award, so was pretty set on becoming a paramedic. When I was 15 I wanted to move into hospital work, but I was too young to work with patients so started in microbiology, preparing swabs, urine, blood cultures etc for testing, as well as helping out in the mortuary. The lead mortician was an ex ODPP who told me about the role, and that’s the first time I came across it. After a couple of years in microbiology the opportunity came up to apply for an ACDP position, and here I am 15 years later.

What’s the best thing about your job?

I love being able to see a whole range of surgery, and observe amazing things that people in other industries just don’t get to see and experience. I also get to be involved in pioneering new surgery, which is really interesting.

What is the hardest thing about your job?

Although we work shifts, surgery can be unpredictable and we can’t just leave when our shift finishes if we are in the middle of something or an operation overruns. I wouldn’t say I find this a hard part of the job though, it’s all part of being an ODPP which I love.

What is an average day like for you?

The good thing about being an ODPP is that there’s no such thing as an average day, every patient and every surgery is different. My shifts vary from 7.45am – 3.45pm, 1pm – 9pm, and on call once a week. When I arrive I test the anaesthetic equipment; checking the machines are working correctly, and preparing the correct patient for the correct procedure. I then check the necessary paperwork - the consent form, pre-operative check list, the area of the body on which they are having surgery, blood tests and MARS data. I connect the anaesthetic monitoring equipment and assist the anaesthetist with administering medication and securing the patients airway using an E.T tube or LMA. We then transport the patient to theatre and onto the operating table.

I present for the whole operation to assist with any extra medication required, fluids that need changing, blood gases that need taking or anything else that requires my assistance. Once the operation is complete I carry out the same procedures in reverse. The ODPP finishes when the patient gets into recovery and we begin again with the next patient.

What advice would you give to someone hoping to follow in your footsteps?

You have to learn on your feet in this job, for example knowing which patients you can talk to and which don’t want to chat, possibly because of nerves. It isn’t something you can be taught. Some patients tell you their life story, and others don’t want to talk at all.

The ODPP role offers a lot of scope for progression - from being a senior in theatres, to theatre manager. You can also provide first aid at concerts and events. Do it, it’s a great career.
The Benefits of Cardiac MRI

Advances in Cardiovascular Magnetic Resonance (CMR) have pushed this imaging modality into mainstream cardiology. New technology and techniques have made CMR the gold standard for cardiac tissue characterisation and its flexibility allows for several clinical questions to be addressed as part of a single study. CMR offers a potential ‘one stop’ imaging investigation and has a number of benefits over other imaging techniques: there is no ionising radiation and scanners have a free choice of imaging planes and wide field of view with the ability to identify co-existing pathologies.

Techniques:
CMR can provide both anatomical and physiological information. Fast imaging techniques provide both high spatial and temporal resolution images which enable cine imaging of the heart. This allows volumetric analyses of the left and right ventricles, as well as the identification of ventricular regional wall motion abnormalities.

Uniquely, CMR also provides tissue characterisation and allows the identification of fibrosis. This can be used in the assessment of myocardial viability after infarction, as well as in the identification and differentiation of several cardiomyopathies which may share similar phenotypes. For example, in patients diagnosed with heart failure, the pattern of fibrosis can provide an essential insight into the aetiology of the heart failure, which is not possible with other imaging modalities.

The presence of fibrosis can also have important prognostic implications in cardiomyopathies and in patients with heart failure, which can enhance and refine patient management.

Volumetric analyses:
CMR provides an accurate, reproducible method to assess left and right ventricular volumes and function. This can be done without the need for contrast and unlike echocardiography, is not limited by the patient’s physique or imaging windows. This is particularly relevant in assessing the right ventricle, which can be difficult on echocardiography.

Accurate assessment of volumes is important in pathologies including valve disease, congenital heart disease and in monitoring patients on potentially cardiotoxic medication such as Adynamycin or Herceptin. Both left and right ventricular volumes can be determined allowing for an accurate assessment of ejection fraction and cardiac output.

Cine imaging allows the detailed assessment of regional wall motion abnormalities in both the left and right ventricles, so CMR has an important role in identifying Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC). Quantification of RV volumes and function and the identification of regional wall motion abnormalities are part of the diagnostic criteria for ARVC.

Flow measurements:
CMR enables non-invasive blood flow measurement. This is done without contrast and utilises a phase contrast technique known as flow mapping or ‘Q Flow’. Q-flow can measure flow in the aorta and main pulmonary arteries allowing the assessment of shunts and aiding in the assessment of valve disease in combination with left and right stroke volumes.

Fig 1 shows CMR images of a patient with pulmonary hypertension. They were confirmed to have a superior sinus venous defect. Flow mapping confirmed a haemodynamically significant shunt which facilitated surgical planning.

Valve assessment:
Whilst echo remains the standard for valve disease assessment, CMR can provide a useful adjunct by combining anatomical data with volumetric and flow analyses. In bicuspid aortic valves for example, CMR can provide an accurate assessment of the aortic root and thoracic aortic dimensions, exclude a coarctation and give the regurgitant fraction by volumetric analyses and flow mapping.

Fig 2 shows a significant thoracic aortic coarctation in a patient known to have a bicuspid valve.

Coronary artery assessment:
CMR can be used to identify the origins of the coronary arteries and exclude an anomalous course (congenital coronary artery anomaly), avoiding radiation from cardiac CT or invasive angiography. The 3D whole heart sequence allows the origins and main coronary arteries to be assessed without the need for contrast. Excluding a ‘malignment course’ (when the aberrant artery is compressed between the aorta and main pulmonary artery) is important, for example, in young patients presenting with syncope or chest pain when exercising.

By combining this sequence with other imaging such as stress perfusion, comprehensive imaging of patients with chest pain can be achieved in a single study.

Tissue characterisation:
CMR is unrivalled in its ability to characterise cardiac tissue, be it in the identification of myocardial oedema, fatty infiltration, myocardial iron deposition or scarring secondary to infarction or fibrosis in cardiomyopathy. It also plays an important role in assessing benign and malignant cardiac and pericardial tumours.

Delayed myocardial enhancement:
The identification of infarction or fibrosis is achieved using gadolinium contrast agent. The distribution volume of gadolinium is increased in intracellular rupture, such as acute infarction, or an increased extracellular matrix, such as in fibrosis. This results in larger concentrations of gadolinium within infarcted/fibrotic tissue with subsequent shortening of T1 relaxation times. By setting a ‘null point’ where the magnetisation of normal heart muscle tissue produces zero signal, infarcted/ fibrotic tissue can be identified, with normal tissue appearing black and infarction or fibrosis white.

Fig 3 shows CMR images such as this can help to diagnose patients presenting with troponin.
positive chest pain with subsequent non-obstructive coronary arteries and has important treatment and management implications. The high resolution facilitates the distinction between viable and non-viable myocardial tissue, aiding decisions on revascularisation strategies.

Fig 4 shows a viable partial thickness infarction versus a non-viable full-thickness infarction.

Fig 5 shows delayed enhancement images showing a range of pathologies that can be differentiated in cases with left ventricular thinning identified on echocardiography: (a) Granulomas resulting in hyper-enhancement involving the sub-epicardial layer and mid wall of the lateral wall (red arrow heads). The subendocardial layer is spared. Appearances are typical of a myocarditis. T2 weighted images will confirm the presence of oedema in the acute setting.

Iron overload:
Iron deposition results in faster T2 signal decay in CMR. Measuring this allows a non-invasive quantification of myocardial and hepatic iron overload, which can be used to guide chelation therapy in disease processes such as thalassaemia (where cardiac iron overload is the dominant cause of heart failure and mortality).

Assessment of secondary causes of hypertension:
CMR can be combined with other sequences to allow the assessment of the adrenal glands, kidneys, thoracic and abdominal organs, as well as identification of LV hypertrophy and quantification of LV mass. This comprehensive screening test can be performed during a single session and offers a rapid, convenient test for patients that may have a secondary cause of hypertension.

Conclusion:
CMR offers a comprehensive and versatile cardiac assessment and is unsurpassed in its ability to characterise myocardial tissue. It avoids ionisation radiation, offers incremental value to patient management, and can be used both as a ‘one stop shop’ or as an adjunct to the more traditional cardiac imaging modalities.

Why did you study medicine?
At school I fell in love with science, particularly biology. When I entered the science subjects and liked the idea of becoming a doctor, I grew up in a very career focused Greek family and the sciences suited me well, allowing enjoyable studying science, which led me towards medicine, and have been on that career path ever since.

What made you pursue your specialty?
When you finish medical school you are a lot of choices in front of you and you don’t really know which direction to go in. I spent six months in the emergency dept in my first job and I found myself moving towards the paediatric emergency side of things. I just found the cases much more interesting, and the fact that children tend to bounce back very quickly was also really appealing. So I decided to apply for a paediatric training job and haven’t looked back since!

What is the most challenging part of your job?
We see such a range of problems and generally well children, so the challenge is picking out those that have serious or even life threatening conditions. Of course, very rarely but tragically we lose children to severe infections or severe illnesses such as cancer. Luckily this is very uncommon though.

What is the most rewarding part of your job?
For the most part we see children who are coming into hospital for an acute illness, and whilst they might look unwell when they come in, they turn around very quickly. You must have a day with a very poor temperature looking miserable, but within 30 minutes the child will be running around with the word ‘smile’ – which can make doctors and parents look like frauds! That rapid turnaround in most children is really rewarding. Building up relationships with children and their families is also important. I see lots of babies from the first few weeks of life; you then follow them through their first year and subsequently get to know the child and family.

Given your choice, what do you enjoy doing in your spare time?
What is your most prized possession?
If it’s a person, I must say it’s my family. I think the world of my children, and everything I do in terms of my work and career is motivated by them. I do own a Fender Stratocaster guitar and played in bands when I was younger. Unfortunately that’s now gathering dust but I do sometimes look at it and think about plugging it in again and getting back into the guitar!

Where is your favourite place in the world?
Obviously I love home, but outside of the UK there are parts of Cyprus where I spent time when I was originally from, that I absolutely love and visit every year. My wife is from Australia so we go there frequently. Australia. Some of the coasts in southern New South Wales are just beautiful and we often go there for the summer holidays.

The best soundtrack for a dinner party is…
That’s a tough one. After a few glasses of wine we often take requests for our guests’ guilty pleasures and play them off youtube on the hi-fi speakers - usually tracks from the 80s come up!!

If you could be any biscuit, what biscuit would you be and why?
If you had one super power what would it be and why? I suppose it would be great to see into the future - just to make sure everything will be ok for the kids and my family.

If you were a movie character who would you be? I am in the process of watching through the Star Wars films with my kids, so I’d have to say Han Solo. Not that I look remotely like Harrison Ford.

If you were a movie character who would you be?
We would love to hear from you. Please let us know what you think of the magazine and any topics you’d like to see in the next issue.

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