Welcome to our Cardiac Surgery Research PPI Newsletter

In the Department of Cardiovascular Sciences at the University of Leicester we have a specialised team involved in the trials we are currently undertaking and we would like to share with the public how funding from the British Heart Foundation and other funding bodies is used.
Members of our team

Professor Gavin J Murphy
British Heart Foundation
Professor of Cardiac Surgery
University of Leicester/Honorary Consultant Cardiac Surgeon,
University Hospitals of Leicester NHS Trust

Tracy Kumar
Senior Research manager

Sue Page
Administrator

Bethany Tabberer
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Research Nurse

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Academic Clinical Fellow

Riccardo Abbasciano
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Douglas Miller
Clinical Research Fellow

Hardeep Aujla
Clinical Trials Co-ordinator

Kim Mason
Clinical Trials Co-ordinator
Ongoing Studies

**REVAKI-02: The Effect of Sildenafil (Revatio®) on Post-Cardiac Surgery Acute Kidney Injury: A Randomised, Placebo-Controlled Phase IIB Clinical Trial**

The aim of the study is to establish whether a known medicine, Sildenafil (Revatio®), can prevent damage to the kidneys during cardiac surgery. Kidney damage is a common complication of cardiac surgery and there is no current treatment. Sildenafil is already available in the United Kingdom to treat erectile dysfunction (impotence) and a lung condition called pulmonary arterial hypertension. In a previous trial (the REVAKI-1 trial) we identified a dose of Sildenafil that was safe and resulted in blood levels that are known to be effective for the treatment of these other conditions. In the REVAKI-2 trial we now want to compare the level of kidney damage in patients receiving the dose of Sildenafil identified in the REVAKI-1 trial compared to those receiving a placebo (a test substance).

**MaRACAS: Looking at What Causes Kidney Complications After Cardiac Surgery and the Possible Effects of Diabetes**

A proportion of patients who have cardiac surgery are at risk of developing kidney complications after the operation. This study is looking at biomarkers (certain indicator substances) that are involved in causing these kidney complications to see if we have an indication of these developing earlier. If these complications can be identified straight after heart surgery they may be able to be prevented or treated in the future. We will also be trying to find out if having diseases like Diabetes have an increased risk of developing kidney injury after heart surgery.

**Ob-Card Study**

The aim of the study is to establish whether being overweight or obese causes changes in the expression of genes in the heart that protect the heart from damage during surgery. Heart damage is common following cardiac surgery and there is no effective treatment. It is well known that patients who are overweight or obese are much less likely to develop severe heart damage during surgery and have better survival rates afterwards. This has been called the Obesity Paradox. We do not know why this occurs but our previous research in the laboratory suggests that being overweight or obese causes changes in gene expression that alter how heart cells use energy sources such as fat or sugar. This protects the heart from damage. Our laboratory research suggests that this is regulated by changes in gene expression. We now want to establish whether these changes occur in cardiac surgery patients.

New studies

**Val-CARD study**

The Val-CARD trial aims to answer the question: “Does the drug sodium valproate reduce complications affecting the heart and kidneys in patients having heart operations?” Sodium valproate is a drug commonly used in the treatment of epilepsy. Recently it has been shown to protect against heart and kidney damage in laboratory tests. This has led to trials evaluating whether it can prevent heart and kidney damage in patients. We wish to evaluate whether treatment with sodium valproate for a short period can reduce levels of organ damage following heart surgery by measuring this in blood tests, exercise tests, a special x-ray measuring body fat content, a walk exercise and muscle strength tests. We now want to establish if sodium valproate works by making the heart and kidney more resistant to any injury that results from the use of the heart lung machine.

**PRE-OP ENERGY Trial**

Patients with obesity undergoing heart surgery have lower rates of complications during and after their surgery compared to normal and underweight patients. We think this may be related to high energy diets that result in weight gain and potentially beneficial genetic changes. The PRE-OP ENERGY Trial aims to find out if a high energy diet before heart surgery will reduce complications following surgery.

**The ReST Study**

A group of diseases involving the thoracic aorta (the major artery in the body) called Non-Syndromic Aortic Diseases can develop without any obvious symptoms or external features and, if not treated, may lead to life-threatening medical emergencies. For this reason, we believe it might be helpful to investigate relatives of patients undergoing surgery for thoracic aortic disease to understand if there are tests that could help us to identify and treat this condition at the right time.

We would like to undertake a screening programme that combines a genetic and imaging approach to see how often we could diagnose these conditions, and whether this would help patients and benefit public health. The ReST study would serve as a feasibility study whose findings will prove invaluable when applying the same procedures to a wider population.
Volunteer Services

One of our main projects is how to get members of the public involved in research. We see the role of a volunteer as being similar to the existing patient volunteer but more “research” orientated. After a period of negotiation with both the UoL and UHL, we succeeded in finding a member of the public, Alan Phillips, who already had patient volunteer experience. Alan undertook a very successful 6 month pilot phase and following this, we have been given approval to make this role permanent within cardiac surgery research. It has been suggested that in the future this could be extended out across the whole UHL Trust.

Alan’s role involves:

- Talking to and supporting research participants – some patients do not feel at ease talking to doctors or the research team but would talk to a volunteer.
- Helping to explain clinical terminology in layman’s terms
- Reporting any issues or concerns to the research team
- Offering support to participants
- Help to present a positive image of research participation

Patient and Public Involvement (PPI) in Cardiac Surgery Research

To help raise public awareness that Glenfield Hospital is a “Centre of Excellence” for research and to encourage members of the public to be involved in our research, we have formed a Patient & Public Involvement (PPI) Group. This group is made up of members of the public who have volunteered their services to assist us in our research. Within this group we have members helping us with: Consultation – reviewing applications for new studies and Dissemination responsible for local publicity and social networking.

Who we are

We are a group of volunteers of different ages, from different backgrounds and walks of life who all, for one reason or another, have an interest in being part of the groundbreaking research work in cardiac surgery which is being carried out by Professor Gavin Murphy and his team at the University of Leicester/University Hospitals of Leicester NHS Trust. Some of us have experienced cardiac interventions at some stage of our own lives. Some of us have friends and relatives who have undergone and had their lives dramatically improved by cardiac surgery, and some of us simply have a technical interest in the type of research that is going on. However, all of us share one common goal – to help drive forward the life-enhancing and often life-saving research work going on at these centres of research excellence, our local hospitals here in Leicester.

What we do

Our cardiac surgery PPI group meets regularly to receive updates directly from the research teams on the latest developments in cardiac surgery. Often we are asked to review research projects (sometimes even to suggest projects), and comment on how relevant we feel the work is. We give the patient and public perspective – including making sure that any letters or documentation which are designed to go out to patients are written in a way that everyone can understand. Most research projects need volunteers, so part of our work involves spreading the word about the great research work that is going on in Leicester. We are always on the lookout for fresh opportunities for the research team to get out and about into the community to talk about their exciting work, often with PPI members at their side.

Professor Gavin Murphy commenting on the part played by his PPI group, says: ‘By making public and patient participation part of our research strategy we will ensure that our research best reflects the needs and concerns of the community which it aims to help. We would be unable to deliver our current research strategy without the commitment and time kindly given by the previous patients and members of the public who make up our PPI, which is directly making a difference to both patient experience and research success to an unprecedented extent.’

PPI Members

Anthony Locke, Gary Bannister, Robin Bowler, Paul Haywood, Terry Finnigan, Peter Read, Rajesh Patel, Jagruti Lalsita, Chandra Parmar, Alan Phillips
PPI PATRON – Alan Birchenall, MBE

We are pleased to announce that Leicester City Ambassador, Alan Birchenall, MBE has been named Patron of the Cardiac Surgery PPI Group.

Cardiac Surgery PPI Event – Thursday 26 April 2018

Alan Birchenall, delivering his presentation at our Cardiac Surgery PPI Event on 26 April 2018 at the Glenfield Hospital. Attendees enjoyed a tour of the laboratories where they could see how funding from the British Heart Foundation is used, along with poster tours and refreshments. Feedback was positive with the parting comment of ‘When is the next Event!’.

Dr David Adlam
Guest Speaker

Peter Read
with Prof Murphy
PPI Member

Sue Page
PPI Event Co-ordinator
Comments from our PPI Members

In 2016 I suffered a heart attack resulting in me having 3 stents. I decided to change my diet by eating healthier and walking everyday. One year later I had lost 5 stone. I read about “Take Heart Leicester” the adult and cardiac support group and as I like talking to people to try and understand what they went through as well as talking about my own experience, I decided to become a member. I also joined an exercise group called “Heart Smart” where I go every Thursday. Upon hearing about the “PPI Group” I realised they do amazing work/research which can only benefit future patients, so I decided to join this group and hopefully I can help in some way.

Gary Bannister

In the last 9 years I have had major heart surgery to replace the mitral valve twice. This is the reason I became a UHL Volunteer. I visit the cardiac ward at Glenfield weekly to speak to patients about their own/my own experience in relation to cardiac surgery. I am also a member of Take Heart Leicester, the Adult Cardiac Patient Support Group. For these reasons I got involved with the PPI group. It is also a way of me giving something back.

Peter Read

My father had plastic valves put into his heart 40 years ago and he lived until he was 88. I heard Professor Murphy talk at our Rotary Club and heart surgery has advanced significantly in that time but the unexpected still happens and if I can help in any way to reduce this then I would like to.

Paul Haywood

For over 13 years I’ve been a UHL volunteer and a member of Take Heart Leicester, the Adult Cardiac Patient Support Group which supports the cardiac wards in all three hospitals, though primarily at Glenfield where I visit the cardiac wards. I talk to patients about my own experiences in relation to cardiac surgery and subsequently this led me to become a member of the PPI group.

Terry Finnigan

Events 2018/2019

The PPI members help to locate public events where Professor Murphy, who leads all current cardiac surgery trials at the UoL, can attend and speak about how funding from the British Heart Foundation and other funding bodies is used within his trials. Each year Professor Murphy undertakes a series of public lectures relating to his Cardiac Surgery Research.

Articles

Our PPI members continue to look for new opportunities to spread the word about cardiac surgery research and they have written an article about their involvement in PPI and what it means to them. The articles have been published in local village newsletters and continues to be work in progress.

Come and join us

If you would like more information about our PPI group and to be involved in our work, please contact us via the details above. We would be delighted to hear from you.

Newsletter

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