Newsletter

Outcome Monitoring After Cardiac Surgery

Spring 2017

Welcome!

Welcome to this edition of the OMACS newsletter. We would like to thank you for your contribution to the OMACS study so far.

Please continue to complete and return your questionnaires; they provide vital information to help us to understand the long-term health implications for cardiac surgery patients and design our research. We hope you find this newsletter interesting. Please contact us if you have any suggestions or you would like to get more involved in our research.

About us

The OMACS study is run by the Clinical Trials and Evaluation Unit, Bristol. We are a UKCRC (United Kingdom Clinical Research Collaboration) fully registered Clinical Trials Unit. This is a national scheme that recognises trials units that work to a high standard. Many of our trials are based in cardiac surgery and cardiology but our portfolio also includes studies in ophthalmology, general surgery, bariatric surgery, infection control and cancer.

The CTEU is also part of the Bristol Academic Clincal Trials within the University of Bristol, along with our sister unit Bristol Randomised Trials Collaboration (BRTC).

In addition, we are also part of the Bristol Surgical Trials Centre, supported with funding from the Royal College of Surgeons of England that aims to enable surgeons to learn more about how to deal with a range of conditions, assess new surgical techniques and discover surgical breakthroughs. It designs and delivers studies to evaluate new operations, and answer research questions that are important to patients and the NHS.

We are a multidisciplinary team led by medical statistician Professor Chris Rogers and epidemiologist Professor Barney Reeves. Our team consists of trial coordinators and managers, research nurses, statisticians, administrative and managerial support and an IT and database team.

Research in Bristol boosted by £21 million award over five years

In September we learned that the joint bid from University Hospitals Bristol and the University of Bristol to be an NIHR Biomedical Research Centre had been successful. The five year award, worth £21.8 million, will begin in April 2017 and will be split between 5 themes; Cardiovascular Disease, Nutrition, Diet and Lifestyle, Surgical Innovation, Mental Health and Perinatal and Reproductive Medicine. The data obtained in OMACS forms a major part of the Cardiovascular theme. One of the aims will be to see why some grafts and valves don't last as long as others.

The partnership is one of 20 NHS and university partnerships across England to have been awarded funding through the NIHR. Each Biomedical Research Centre (BRC) will host the development of new, ground-breaking treatments, diagnostics, prevention and care for patients in a wide range of diseases like cancer and dementia.

Robert Woolley, Chief Executive of University Hospitals Bristol, said: "This funding and designation is testimony to the special health research strengths that we have in Bristol and will help us to build on the excellent partnership that exists between the local Trusts and the University of Bristol. Working together, we will marry population studies, laboratory science and patient-based research to improve practice and design ground-breaking treatments and care for all."

This article is sourced from the University of Bristol press release. If you would like more information about this research please see the full article on the University of Bristol website: **http://www.bristol.ac.uk/news/2016/september/biomedical-research-funding.html**

If you would like to find out more about research carried out by the CTEU please visit our website **cteu.bris.ac.uk.**

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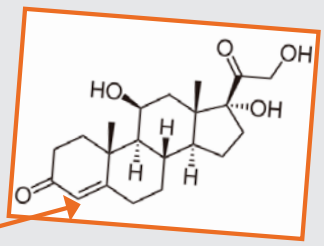
The CORTISOL studies

We are very lucky that we are able to collaborate with laboratory scientists in order to perform cutting edge research. The 'CORTISOL' studies are a good example of this.

Heart surgery provokes a large stress response in the body, which can lead to complications after surgery. We all produce a hormone called cortisol (a steroid) that helps protect against this response. It is thought that there are some people who do not produce enough cortisol or do not produce it in the right pattern. Doctors often give synthetic cortisol type drugs (corticosteroids) to patients when they are critically ill to reduce this response. However, if they are used in too large a dose, these drugs can have significant side effects. Currently researchers do not know exactly how heart surgery affects cortisol production and it is hoped that if we better understand the stress response we can tailor the treatment.

The first part was to study cortisol levels over the 24 hour period starting on the morning of the operation. This involved taking a small blood sample every 10 minutes, which was a huge undertaking, but this is allowing us to understand in great detail how the levels of cortisol vary during this time. The second part of this study is to look specifically at patients who do not recover well from cardiac surgery and become critically ill after their operation. The final part of this study, which has not started yet, is the Peacock study which will look at cortisol levels in babies and children during and after cardiac surgery. This is because it is likely that their response will be different to that of adults, and will allow treatment to be developed that is age appropriate.

Peacock Study



Cortisol structure

Spotlight on:

The SKArF Study: Identifying proteins in heart tissue relating to atrial fibrillation

Atrial fibrillation (AF) is the most common heart rhythm disorder in the UK, estimated to affect over 1 million people. AF can lead to other problems and can increase the risk of stroke. Current AF treatments include antiarrhythmic drugs and surgical procedures. Unfortunately, many effective antiarrhythmics can have serious side effects.

Professor Marrion's research group, at the University of Bristol, has found proteins that could be a potential target for the development of new antiarrhythmics without the side effects.

This study will collect surplus heart tissue from patients undergoing cardiac surgery, and test these proteins to see how they affect the electrical activity of the heart to see if it is different in patients with AF. SKArF is a single centre study looking to recruit 90 adult patients who attend the Bristol Royal Infirmary for elective cardiac surgery over 12 months. The study is funded by the British Heart Foundation. The Chief Investigator is Professor Raimondo Ascione, and the University researchers will be led by Professor Neil Marrion.

Have you visited the British Heart Foundation website?

The British Heart Foundation has long been a strong supporter of our work, and we are very grateful for their continued support. Their website provides a wealth of information, and is well worth a look. It has tips to help you improve your diet and lifestyle, information about current fundraising and how its funds are spent. It also has some inspiring stories about amazing achievements of those with heart conditions. It's well worth a look, visit www.bhf.org.uk

British Heart Foundation

You can join 'Heart Matters' to receive a regular magazine at www.bhf.org.uk/heart-matters-magazine or ring 0300 330 3322.

NHS University Hospitals Bristol NHS Foundation Trust

UKCRC Registered Clinical Trials Units

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