



Newsletter

Bristol Trials Centre

May 2020



Welcome!

Welcome to this edition of the Outcome Monitoring After Cardiac Surgery (OMACS) study newsletter.



By joining the OMACS study you are helping us to find out how having cardiac surgery affects people over many years.

We are using information about your surgery and recovery, along with your questionnaire answers and blood samples to look into the reasons why some people have health problems after their heart surgery and others don't.

On the next page you can read about how scientists and doctors have used OMACS samples and information in their research, and how this could affect future patients. We hope you find this newsletter interesting. If you have any suggestions or require this newsletter in a large print format please email us: omacs-study@bristol.ac.uk

OMACS Facts...

OMACS started recruiting in **2016**



3007 patients have joined the study so far



We've received **2052** completed questionnaires



We've collected **3632** blood samples



49% of OMACS patients had a heart bypass (CABG procedure)

Data correct as of 14th August 2020

Research at the Bristol Trials Centre



Pictured are a small group of staff from the Bristol Trials Centre, taken last year at the International Clinical Trials Methodology Conference in Brighton. The team shared the results of their work, aiming to improve how research is carried out.

Research is vital to continuing improvements to patient care, and provides doctors with more evidence which helps them give the best care to patients.

The OMACS study is managed by the Bristol Trials Centre and is funded by the National Institute for Health Research (NIHR). The Bristol Trials Centre is part of the University of Bristol, and is involved in dozens of research projects, including cardiac surgery, emergency medicine, general surgery, ophthalmology, public health, paediatrics and many more.

Over the page you can find out how researchers have been using samples and information collected from OMACS patients in their research. If you are interested in finding out about other research projects taking place in Bristol, you can look at our website: <http://www.bristol.ac.uk/health-sciences/research/clinical-trials/> for details of other NIHR funded studies, please visit <https://www.bristolbrc.nihr.ac.uk/>

FUNDED BY

NIHR | National Institute for Health Research

This centre receives National Institute for Health Research (NIHR) CTU Support Funding. This funding has been awarded to support the centre in developing and supporting NIHR research. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and social care.

Recent Results

Does changing the storage temperature of platelets make them work better?

Platelets are the blood cells which make your blood clot. People who have had cardiac surgery are at more risk of bleeding due to changes to their platelets. Some patients may receive extra platelets from donors to help their blood clot after surgery.

We wanted to know if the temperature that the donor platelets are stored at changes how well they can make the blood clot.

To test this, we stored some donor platelets in the fridge, and some in the warm (which is how platelets are usually stored before being given to people). We mixed the donor platelets with blood samples from OMACS patients to copy what happens in your body when you receive a platelet transfusion.

We tested the warm and cold platelets using a new laboratory test, which measured how well platelets make clots in fast flowing blood. We found that platelets stored in the cold made larger clots compared to platelets stored in the warm. This shows us that platelets stored in the cold are better than warm platelets at helping to make blood clots in blood samples taken just after cardiac surgery. This was the first ever study which showed cold platelets work in blood samples from heart surgery patients.

Thank you to all the patients that contributed to this study. Without you this work would not have been possible. The findings from this study will support a clinical trial to compare cold stored platelets with warm platelet transfusion in people who are bleeding, to find out what works best.



Donor platelets ready for transfusion

Does presentation affect patient interest?

We wanted to know if changing how information about a study is presented to potential patients has an effect on whether people want to take part in research.

While recruiting to the initial phase of the study, we sent potential patients 1 of 3 different versions of the OMACS information leaflet, with an invitation to join the study. All 3 leaflets contained exactly the same words, but were formatted differently; leaflet A was a colourfully designed folded leaflet, leaflet B was an A4 sheet with text separated into 2 columns and leaflet C was a page of text with minimal formatting.

The results showed that more patients joined the study if they had been sent information leaflet B. This format is now used by other studies in the unit, and is used for all new OMACS patients joining the study. You can see the published study here: <https://bit.ly/2A8oOlh>

Predicting kidney injury after surgery

Acute Kidney Injury (AKI) is a condition that happens in around 1 in out of 3 patients having cardiac surgery, but little is known about how to prevent it.

We sent blood and urine samples from more than 100 OMACS patients to a specialist laboratory for "metabolomic analysis". This detects thousands of chemicals (metabolites) in samples. Researchers use this data to create a 'metabolomic profile' of each sample. These profiles are used to find out if certain metabolites increase the risk of a patient having AKI, and may shed some light on what causes it.

In this pilot study, researchers found that some metabolomic profiles are more commonly found in patients who had AKI. The researchers plan to find out whether these profiles can predict whether a patient will experience AKI after surgery, which may help doctors treat patients. Scientists will also investigate these profiles to try and understand why AKI starts.



Update your details

If your details have changed, please complete the cut off strip and return to OMACS, BRISTOL HEART INSTITUTE, FREEPOST SWB2225, BRISTOL, BS2 8ZZ

Name _____

Email _____

Phone number _____

Date of birth _____

Address _____

If you wish to withdraw from the study please contact us on omacs-study@bristol.ac.uk