



# Newsletter

Bristol Trials Centre May 2022



## Welcome!

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

By being part of the OMACS study you are helping us to investigate how having cardiac surgery affects people over many years. On the next page you can read about how scientists and doctors have used the samples and information from OMACS participants in their research, and how this could impact future patients care.

**We hope you find this newsletter interesting. If you have any questions or require this newsletter in a large print format please email us:**

[omacs-study@bristol.ac.uk](mailto:omacs-study@bristol.ac.uk)



## Research at the Bristol Trials Centre

The OMACS study is managed by the Bristol Trials Centre previously named the Clinical Trials and Evaluation Unit (CTEU). The study is funded by the National Institute for Health Research (NIHR). The Bristol Trials Centre is part of the University of Bristol, and manages dozens of research projects, in various clinical areas including cardiac surgery, emergency medicine, general surgery, ophthalmology, vaccinology, oncology, paediatrics and many more. 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/>

## The future of the OMACS study

“As we close recruitment to the OMACS study we would like to thank every one of the patients who have contributed to the study. The information and samples provided are invaluable for understanding how we can improve care for patients undergoing cardiac surgery.”

Dr Lucy Culliford

We would like to notify you that recruitment to the OMACS study ended in May 2022. The data and samples we have collected to date will continue to be stored and used as outlined in the patient information leaflet and consent form that you received.

This will be the final newsletter circulated directly to participants. Any updates will continue to be posted on the study website, check here for future updates; <https://bristoltrialscentre.blogs.bristol.ac.uk/details-of-studies/omacs/omacs-newsletters/>

## OMACS Facts...

OMACS started recruiting in **2016**



**4069** patients have joined the study



We've collected samples from **1236** patients



We've received **3112** completed questionnaires



Data correct as of 03/05/2022

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**NIHR** | National Institute for Health Research

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## **Predicting post-operative complications**

A pilot study was previously carried out which analysed blood and urine samples for over 100 OMACS patients. This study uncovered some chemicals (metabolites) which were present more often in samples for patients which later suffered post-operative kidney injury. If it could be shown that these metabolites are predictive of kidney injury, this could improve doctors ability to plan appropriate care for patients that are more at risk.

Therefore, a new larger study has been set-up to investigate this topic further. Blood and urine samples from a further 230 OMACS patients have been sent to a specialist lab in the USA. The lab have run a 'metabolomic analysis' to show which metabolites are present in samples before and after cardiac surgery for each patient.

The researchers are also using this study as an opportunity to look for metabolites that might predict the development of an irregular heartbeat post-surgery (atrial fibrillation). This condition occurs in 20-50% of patients after heart surgery and increases the length of hospital stay by an average of five days.

The researchers have received the lab results back and are currently running a statistical analysis to uncover whether a certain combination of metabolites in the blood/urine can be proved to be predictive of post-op kidney injury or atrial fibrillation.

## **Does 'keyhole' surgery reduce inflammation**

Minimally invasive 'keyhole' surgery is growing in popularity among surgeons and is a common approach for certain heart operations (e.g. aortic valve replacement/repair, AVR; and mitral valve replacement/repair, MVR).

It is known that cardiac surgery can cause an inflammatory response throughout the body. Certain 'biomarkers' can be found in blood and urine samples after heart surgery which indicate inflammation of various organs.

A study is now in progress which will use blood and urine samples and clinical data from up to 80 OMACS patients to determine whether using minimally invasive techniques can reduce this inflammation after AVR or MVR surgery. The researchers are also investigating whether minimally invasive methods impact on post-operative quality of life reported by these patients.

## **COVID-19 and research participation**

The COVID-19 pandemic and the need to research vaccinations and treatments raised the profile of clinical research.

A study is underway which is using data from OMACS patients to compare study participants for patients recruited before or during the COVID-19 pandemic. It is being investigated whether patients were more likely to consent and return follow-up questionnaires before or during the pandemic. Post-op quality of life questionnaire scores will also be compared for these two groups of patients.

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## **Would you be interested in joining our Bristol Trials Centre Patient Advisory Group and helping us with other research projects?**

Involving patients and members of the public in research is very important to make sure our studies are suitable and relevant for those we might recruit. People who have had heart operations are invited to join our public panel. You would meet with researchers and discuss studies being carried out. No expertise or experience is required. Email [btc-mailbox@bristol.ac.uk](mailto:btc-mailbox@bristol.ac.uk) to hear more.