

Purpose:

The Outcome Monitoring After Cardiac Surgery (OMACS) cohort study was set up with the aim of establishing a rich source of biological samples and health status data from patients who undergo cardiac surgery. The objectives were to use these data to inform the design of new clinical studies and to provide samples and data to answer research questions.

Participants:

Recruitment began on 23rd May 2016 and ended 31st May 2022. Adult patients undergoing cardiac surgery at University Hospitals Bristol and Weston NHS Foundation Trust were screened and approached for consent. Participants could optionally consent to provide biological samples (urine, blood and waste tissue) in addition to data. A total of 4068 patients consented to participate in the study with 2027 consenting to donate samples. Participants were sent quality of life follow-up questionnaires at 3 and 12 months after surgery. The clinical data were collected from hospital records/databases.

Findings to date:

The OMACS population appears to be representative of the wider cardiac surgery population with similar pre-operative demography to those reported on the UK surgery population. To date, eight studies have been carried out by research teams using data from a total of 1165 OMACS participants. Two studies-within-a-trial have been performed by the OMACS study team. The format of the study patient information leaflet was not significantly associated with an increased recruitment rate, and an alternative theory-informed cover letter included with the 12-month follow-up questionnaires was not associated with an increase in questionnaire completion. Additional exploratory research carried out within the OMACS study has been presented at international conferences.

Future plans:

The OMACS study is now closed. The cohort's data and samples will be available to share with researchers, providing an opportunity to answer a variety of research questions (e.g. evaluating predictors of adverse outcomes after cardiac surgery such as biomarkers, surgical methods and pre-existing conditions). The data and samples will be available for sharing in an anonymised format.