

Sandrine Rendel, National Operational Coordinator, QUOD, Oxford

Quality in Organ Donation (QUOD) is a national consortium formed of clinicians and scientists from intensive care and transplant units across the United Kingdom, working together with dedicated operational staff from NHS Blood and Transplant (NHSBT) and its directorate Organ Donation & Transplantation to facilitate research to increase the number of organs available for transplantation.

In researching pathways of injury and repair in donor organs and identifying biomarkers, we will help to create a searchable library to include genome, proteome and pathology atlases of organs to predict outcomes of transplantation as well as providing data and samples for hypothesis driven work. This will allow us to turn to organs from older and higher risk donors to increase organ utilisation without compromising outcomes. The QUOD infrastructure also aims to be a platform for service development and interventional clinical trials in the donor to improve survival in transplantation.

The initiative is led by Professor Rutger J Ploeg and his team, in close collaboration with NHSBT, ODT and with many clinical colleagues and scientists working in academic centres in the UK.

The QUOD Expansion project is funded by the Medical Research Council (MRC) and is a joint collaboration with Newcastle University and the University of Oxford. The expansion includes samples from pancreas, heart, lungs, kidney and liver. This part of QUOD focuses on the research of organs that are deemed not-transplantable when consent/authorisation has been obtained from the family. By applying state-of-the-art clinical pathology and molecular techniques, as well as single cell analysis platforms, a wealth of information will become available to be used to benefit future research and patients. In addition, it will facilitate experts in processing organs to retrieve live functioning cells.

QUOD has been built on the back of the infrastructure used by NHSBT for organ donation and transplantation. This provides a unique and cost-effective model to support research and service development using motivated staff involved in donation.