NIHR | Blood and Transplant Research Unit in Donor Health and Behaviour at University of Cambridge

Catch up on our latest research and how we're supporting blood donors like you. Whether you are a current or past donor there's something here for you.

In this edition, learn about the new SHAPE-Plasma study, get an update on the STRIDES study, and find out more about the UK Longitudinal Linkage Collaboration (UKLLC) - including the role of the INTERVAL study, how your data will be used, and how to opt out if you wish. Have ideas of what you would like to see in future issues? We'd love to hear them!

The Victor Phillip Dahdaleh Heart and Lung Research Institute (VPD-HLRI) where the BTRU is located at the University of Cambridge

What do we do at the Blood and Transplant Research unit in Donor health?

Our Blood Donors Studies, which include INTERVAL, COMPARE, STRIDES BioResource, TRACK-COVID and most recently SHAPE-Plasma, fit under the umbrella of the Blood and Transplant Research Unit (BTRU). At the BTRU we aim to:

(1) address major questions about the health of blood donors
(2) produce strategies to improve blood donor safety
(3) ensure a steady supply of blood to the NHS.

We work closely with England's blood service, National Health Service Blood and Transplant (NHSBT), to ensure that our studies and research are relevant to blood service operations and acceptable to blood donors.

SHAPE-Plasma

Did you know that plasma — the yellow-coloured part of your blood — helps save thousands of lives every year? It contains antibodies used to treat immune disorders, bleeding conditions, and rare diseases. Over 17,000 people in England rely on medicines made from plasma.

So why haven't we heard more about plasma donation?
For years, the UK couldn't use its own plasma for medicine due to safety concerns from the spread of mad cow disease. That changed in 2020, and now NHS Blood and Transplant is collecting UK-donated plasma again. But we're still playing catch-up — currently, around 70% of the world's plasma comes from the U.S., which leaves many countries vulnerable to supply issues.

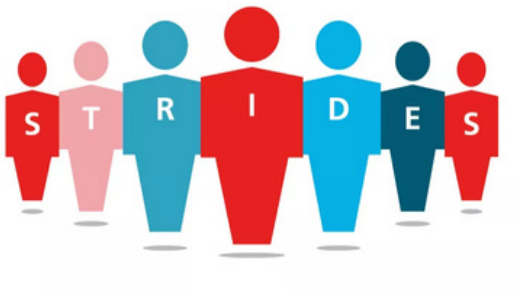
Why is plasma demand rising?
As more people are diagnosed with chronic conditions and the population ages, the need for plasma-based medicines continues to grow. Unlike whole blood, plasma is often collected through plasmapheresis, where blood is taken, the plasma is separated and the rest of your blood is returned to you — meaning you can donate more often.

What does the SHAPE-Plasma study involve?
To keep up with demand safely, researchers at Cambridge and Nottingham universities are teaming up with NHS Blood and Transplant to study how often and how much plasma can be donated without affecting donor health.

They're looking for more than 6,000 volunteer donors across England to take part. If you join, you'll be invited to donate plasma every 2, 4, or 8 weeks for a year. Donations can be given at one of their 3 donation centres in Birmingham, Twickenham or Reading. Some participants will also try new donation volumes or booking reminders to see what helps people stay involved.

The study kicked off in summer 2025 and will run for 36 months. If you're healthy and curious about donating plasma, now's a great time to get involved.
🟦 Already a Plasma Donor and want to join? Learn more by reading the participant information leaflet and signing up online here.
🩸Ready to help but not yet a plasma donor? Visit NHS Blood and Transplant's website to find out how to donate plasma and be part of something life-changing.

STRIDES - reducing fainting in blood donors



Giving blood is one of the easiest ways to save lives – and we wanted to make the experience as smooth and stress-free as possible. That's why we, along with our public donor contributors, created the STRIDES study (Strategies to Improve Donor ExperienceS).

Fainting or feeling faint is one of the most common short-term side effects of giving blood. It can be distressing and up to half of those who experience it never donate again. Around the world, blood services have tried different ways to reduce the risk of fainting. We wanted to compare four of these methods on a large scale to find out which one works best:

1. Having an isotonic drink before donating
2. Spending more time in the donation chair after donating (one minute more)
3. Applying a new method of muscle tension
4. A leaflet explaining the donation process and making donors feel comfortable with it.

When we say "large scale", we mean it. Nearly 1.4 million donors took part over three years across 73 NHSBT Blood Donation sites in England.

Our team at the University of Cambridge NIHR Blood and Transplant Research Unit (BTRU) ran a "cluster randomized trial" – a way of fairly comparing the strategies with the existing ones. Each donation site (a "cluster") was randomly assigned to one or more of the new strategies.

The randomisation of the trial means that blood donors in the trial were randomly given one of the new strategies. The different groups were balanced for other factors such as gender, age, etc. That means with enough people in the study, we can confidently predict if one or more of the new strategies is better than current practice.

So, which strategy came out on top? The results are being analysed and we hope to share the results later this year.

Around 83,000 participants also joined the STRIDES BioResource which has the goal of supporting wider health research beyond donor health. Read more about how the donors in the STRIDES BioResource have been genotyped on a unprecedented scale and how this will benefit future research on the NIHR BioResource website.

We celebrated STRIDES with our wonderful NHSBT colleagues and wanted to thank them in this newsletter for all their efforts. We also wanted to thank every one of you who joined STRIDES and the STRIDES BioResource – without you this work wouldn't be possible.

Interested in finding out more about the results of the STRIDES study? Read the scientific paper here.

INTERVAL and UK LCC: Securely linking your health data for Public Benefit

When you joined INTERVAL we asked for your permission to link to your electronic health records. We are going to be working with the UK Longitudinal Linkage Collaboration (UK LLC) and the NHS to do this. It is important to know that researchers will never be able to identify you from your linked INTERVAL and health record data. Longitudinal cohort studies are a type of research study where scientists follow a group of people (called a cohort) over a long period of time. The cohort usually shares something in common, for example people who have the same health condition, or in this case, are blood donors and joined the INTERVAL study.

Here we explain how the linkage process will happen, how your data will be managed in a safe and secure way, and what this means for you. If you have further questions, please contact the INTERVAL Study Team at helpdesk@intervalstudy.org.uk or call us on 0800 064 0089.

Who is UK LLC?

UK LLC is a national collaboration of UK longitudinal cohort studies, universities, the NHS and UK statistical authorities. It is a unique resource that enables cross-sector research and supports research responses to immediate situations and future policy needs. UK LLC receives funding from UK Research and Innovation (UKRI) through the Medical Research Council (MRC) and Economic and Social Research Council (ESRC).

Who will manage the linkage between my INTERVAL data and my NHS health record data? How is UK LLC involved?

Linkage to your medical records will be managed through the NHS (by NHS Digital Health and Care Wales). The NHS will work with the UK LLC to link your health record data to your INTERVAL data, and make it available for research in a safe and secure way:

- The NHS will remove identifying personal information (such as your name) from your health records and use a unique code to refer to your data, this is called pseudo-anonymisation. The code is unique to you, but it doesn't reveal who you are. The key that links your data back to your personal information is kept separately and secure.
- The NHS will transfer your pseudonymised health information to the UK Secure eResearch Platform, or SeRP. No identifiable information will leave the NHS.
- Within the SeRP, your pseudonymised health information will be linked with your INTERVAL questionnaire data. Any information that could be used to identify you will be removed.
- Your de-identified linked data from INTERVAL and your health records will be made available to approved researchers via the SeRP Trusted Research Environment (TRE).
- Data in the TRE will not include your name, address, or date of birth, any real world ID numbers (like NHS ID), where you live, or the names or IDs of hospitals or other service providers you have used.
- Researchers will never be able to identify you from your linked INTERVAL and health record data.

Who can apply to have access to my data?

Access to the anonymised linked data within UK LLC is very strictly controlled. Only UK-based researchers who have been approved by the Office for National Statistics (ONS), the UK LLC review panel and the INTERVAL study team will be permitted to access it to conduct research. Researchers who wish to undertake any analysis on study data are required to go through a strict data access process and will need to be approved by the study team and data access committee. Only health research in the public interest will be approved.

How will approved researchers access my data?

Researchers will access and analyse the linked data within the UK LLC Trusted Research Environment (TRE). No data on individuals will be able to leave the TRE: only aggregated data (such as graphs or tables) may be extracted.

Can I refuse to have my data used in this way?

You have the right to withdraw your consent for data linkage, or to withdraw from the INTERVAL study altogether if you wish. To opt-out of UK LLC please click the personalised opt out link in your email about this newsletter. If you would like to opt-out please let us know within 4 weeks of receiving this newsletter. If you opt-out before this date, your data will not be included in UK LLC. You can also opt-out at a later date if you wish. If you have opted out after the date above, your data will be removed from UK LLC at the next data upload which happens on a quarterly basis. If you wish to withdraw from the INTERVAL study all together please contact the INTERVAL Study Team: helpdesk@intervalstudy.org.uk or call us on 0800 064 0089. Any pseudo-anonymised data that has already been shared as part of research projects at the time of withdrawal cannot be deleted but your data will not be used going forward. Opting out of the UK LLC does not affect your involvement in the INTERVAL study.

Linkage to Electronic Health Records

To help us better understand the health of participants in the INTERVAL study — and how their health changes over time — we link study data to participants' medical and other health-related records. We currently receive data on: hospital treatment (Hospital Episode Statistics and outpatient data), deaths, cancer diagnoses and diabetes. In addition, for ongoing COVID-19 research, we are receiving: COVID-19 testing data, COVID-19 vaccination records, antibody testing data, General Practice (GP) records, and Stroke Audit data. We are also in the process of requesting access to infection data held by the UK Health Security Agency. Looking ahead, we plan to expand the range of linked data to include further information from NHS England, the UK Health Security Agency, and other data providers.

Find out more about our research at our seminar series

Register to join our seminar which will be given by Dr Andrew Fletcher, Consultant Haematologist and Associate Medical Director of Donor Medicine and Plasma for Medicines NHSBT. Alternatively, you can catch up on our previous seminars on our YouTube Channel.