



Therapeutic Apheresis Services

Service portfolio



Blood and Transplant

Therapeutic Apheresis Services

Following your procedure



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Therapeutic Apheresis Services

Our values

Caring

Expert

Quality

Our mission, vision and strategic priorities

NHS Blood and Transplant's (NHSBT) mission is to save and improve lives. This inspires and motivates us every day.

Introduction to Therapeutic Apheresis Services

NHSBT Therapeutic Apheresis Services (TAS) provide a range of lifesaving and life enhancing apheresis procedures to adults and children across the United Kingdom, 24 hours a day, 365 days a year. Based within NHS trusts in 10 geographical regions, the medical and nursing teams use specialist machines that exchange, remove or collect specific components from within the blood.

TAS operates an outpatient model for non-acute patient procedures and a peripatetic outreach model for paediatrics and acutely unwell patients. Our aim is to be the preferred provider of high-quality, cost-effective and flexible therapeutic apheresis services in the NHS.

We offer:

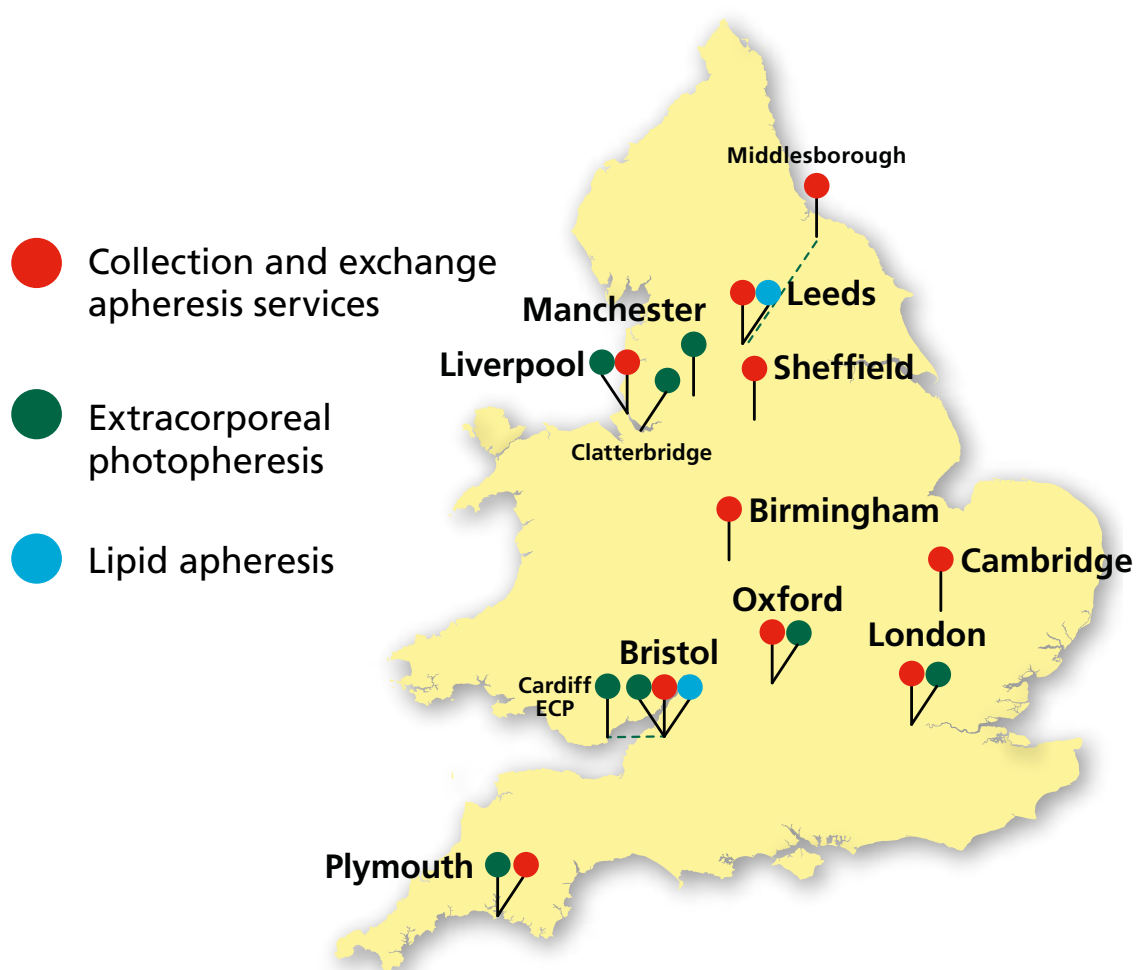
- robust, flexible and responsive regional services
- an expert and experienced clinical team and technical service
- first class quality management and regulatory compliance
- comprehensive range of therapies
- access to 24/7 emergency apheresis services
- treatments to paediatric and adult patients in a variety of hospital settings e.g. critical care
- services to the NHS, other healthcare providers, commercial companies, donor registries and universities

Our facilities

Our regional services are delivered by multidisciplinary clinical teams based within NHS trusts in 10 geographical regions.

Services are routinely provided Monday to Friday, 9am to 5:30pm, in some of our units we operate longer working days and in Bristol we offer routine weekend service provision to meet patient demand.

A 24-hours a day, 365 days per year, emergency on call service is provided across most regions.



Further details about all TAS units are available on our website:

<https://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/>

Our treatments

TAS provides a range of therapies across multiple clinical specialities for NHS and non-NHS customers.

Plasma exchange

Plasma exchange (PEX) is a procedure which removes plasma from the blood and replaces it with new plasma fluid. It is commonly used to treat thrombotic thrombocytopenia purpura (TTP), Guillain-Barré syndrome, some diseases of the kidneys such as Goodpasture's and other blood, autoimmune and neurological diseases. The procedure can take between 1 and 4 hours.

Extracorporeal photopheresis

Extracorporeal photopheresis (ECP) is a procedure in which white blood cells are collected from the blood, treated with a light-activated drug, then exposed to ultraviolet light before being returned to the patient. It is commonly used to treat graft versus host disease (a potential complication following a bone marrow transplant) and cancer of the lymphatic system, which affects the skin. The procedure can take between 1 and 3 hours.

Peripheral blood stem cell collection

Peripheral blood stem cell collection (PBSC) is a procedure in which stem cells are collected from the blood. These stem cells are then used for bone marrow transplantation, most commonly to treat patients with blood cancers such as leukaemia and lymphoma (following chemotherapy) to replace or replenish their own bone marrow. The procedure can take between 4 and 5 hours.

Donor lymphocyte collection

Donor lymphocyte collection (DLI) is a procedure in which white cells are collected from the blood. This is collected from donors and used to transfuse into a patient to help boost their immune system in the months or even years after a bone marrow transplant. The procedure can take between 4 and 5 hours.

Automated red cell exchange

Automated red cell exchange (aRCX) is a procedure which removes red cells from the blood and replaces them with new fresh blood. It is commonly used to treat complications of sickle cell disease or malaria. The procedure can take between 1 and 4 hours.

Low density lipid removal

Low density lipid removal (LDL) is a procedure which removes cholesterol and other harmful elements from the blood by filtration. It is commonly used to treat patients who have naturally high levels of cholesterol in the blood which are unresponsive to diet, medication or exercise. The procedure can take between 2 and 4 hours.

Platelet and white cell depletion

Platelet and white cell depletion (PLD WCD) is a procedure which removes either platelets or white cells from the blood. It is commonly used for patients with conditions which lead to abnormally high levels of either platelets or white cells and are at high risk of complications such as a stroke or loss of sight. The procedure can take between 3 and 5 hours.

Advanced therapy medicinal products

Advanced therapy medicinal products (ATMPs) are medicines for human use that are based on genes, tissues, or cells. They offer groundbreaking new opportunities for the treatment of disease and injury.

TAS perform procedures which support the collection of white cells which then are used for ATMPs such as gene therapy.

Clinical trials

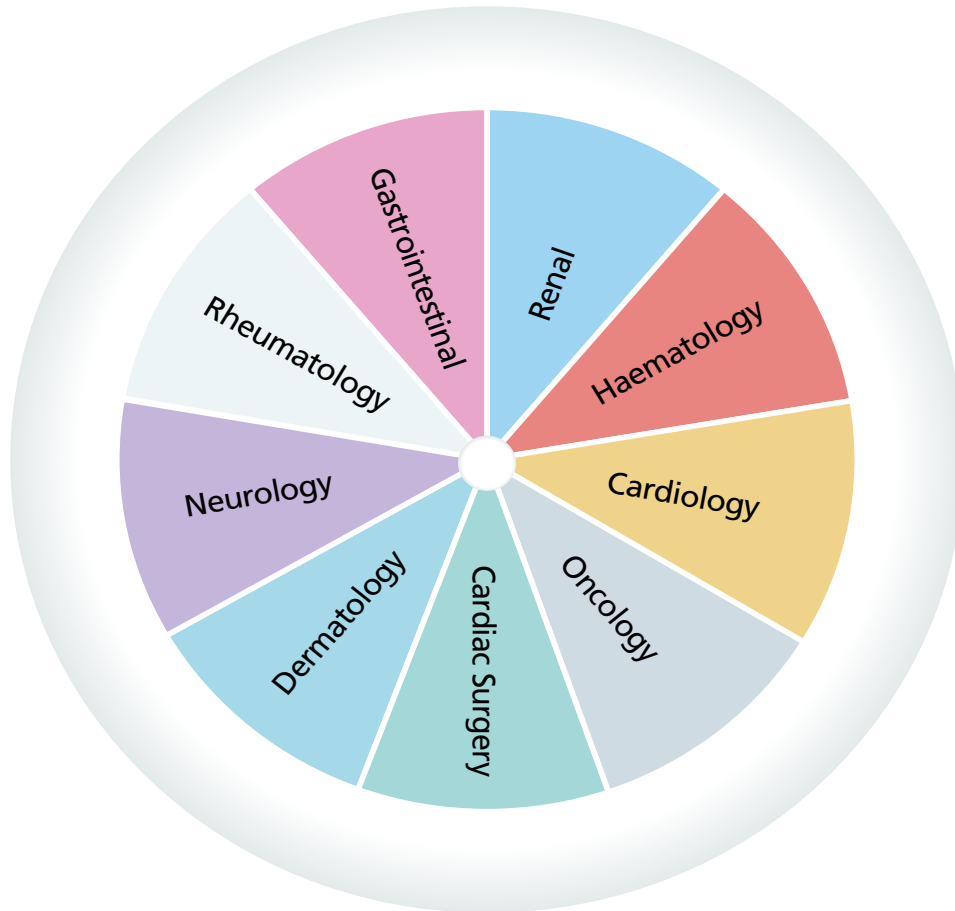
TAS collaborates with various organisations and trusts supporting research and clinical trials in order to provide improved patient treatment and outcomes.

If you have any questions about clinical trials, please email CAGTClinicalTrials@nhsbt.nhs.uk



Indications for treatment

Therapeutic apheresis is indicated for adults and children with diseases across a range of clinical specialities including:



The decision to initiate therapeutic apheresis depends on multiple factors such as diagnosis and potential efficacy versus risk benefit ratio.

The American Society for Apheresis (ASFA) publishes recommendations on the indications for therapeutic apheresis and uses categories from 1 to 4 depending on the evidence base and likely benefit. The 9th edition was released in 2023. These guidelines provide clinicians and commissioners with the evidence base for treatment.

How to make a referral and access our services

Trusts with an SLA

Urgent referrals

Step 1 - Telephone 0300 020 0496.

If you're ringing Monday to Friday, 8am to 5pm, select the option for your nearest unit.
If you're ringing outside these hours, you will be automatically diverted to our on-call team.

Step 2 - Email a treatment request form found on our website

Non-urgent referrals

Email a treatment request form to your closest TAS unit (details found on website).

The team will be in touch with you the next working day.

Telephone 0300 020 0496 if you don't hear back the next working day.

Trusts without an SLA

Step 1 - Telephone 0300 020 0496 to discuss the treatment you're requesting.

Step 2 - When our team confirm and agree the treatment plan for your patient, complete a one-off agreement form found on our website.

Exciting development

TAS is developing an online referral system, users will be updated about the new process nearer the time.



For full referral information and forms, please visit our website:

<https://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/>

Other useful information about referrals

Venous access

Patients referred for apheresis procedures will require good venous access to support the blood flow to and from the apheresis equipment. Peripheral veins can be used where suitable - however, where peripheral veins cannot, or are unlikely to be able to, support the blood flow rates required by the equipment during the procedure (or course of procedures) then central venous access will be needed. For more information on TAS' venous access considerations, visit <https://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/> or scan the QR code on page 9.

Referral to treatment process

Our staff will work with you and your team to prepare for the procedure. The procedure will need to take place in an appropriate clinical environment. Our staff will carry out the procedure, including obtaining consent (unless the patient lacks capacity), work closely with your nursing staff to ensure local policies are followed and will deliver a full handover to your team once the procedure is complete.

Blood products/ components

Patients referred for apheresis procedures may require blood products/ components as part of the procedure. Our staff will discuss this with you upon referral to arrange anything necessary.



Delivering quality services is at the heart of what we do

TAS is committed to providing care that supports our patients' and donors' needs, in a safe, clinically-effective and comfortable environment.

Our service is underpinned by the NHSBT quality management system, which supports the delivery of our high quality service with a strong focus on donor and patient safety. TAS consistently provides assurance of our commitment to quality and safety, which is demonstrated through our positive performance at both regulatory and accreditation inspections. TAS as a service has strong focus on continuous improvement and undertakes regular internal inspections through our quality and clinical audit programmes.

- Our cell collection services for children and adults are accredited by JACIE – The Joint Accreditation Committee of the International Society for Cellular Therapy (ISCT) and the European Group for Blood and Marrow Transplantation (EBMT). Accreditation allows NHSBT TAS to demonstrate that it is performing to a required level of practice, in accordance with agreed standards of excellence. We work in partnership with JACIE accredited stem cell and cellular therapy laboratories, within NHSBT or located within the trusts where we work.
- TAS services are regulated by both CQC and HTA and we work alongside our NHSBT independent quality function and the organisations we work with, to ensure compliance with relevant legislation and regulatory standards.



Patient experience and user satisfaction

We pride ourselves on continuous improvement and regularly seek feedback from our patients and referring clinicians. The feedback from our patients and service users are available to view on our website.

Adverse events/incidents, complaints and compliments

We work in partnership with our service users to fully investigate any adverse events/incidents or complaints and encourage communication of any issues to us. For links to complaint forms and to more information on reporting adverse events, please view our website or contact your local unit.

“Excellent responsive service – we are really pleased to be able to work with NHSBT TAS to help our patients.”

Referring clinician

“The staff really put me at ease. I was very nervous before I arrived but everyone was very patient and reassuring.”

Patient



Technology

We use a number of different technologies which utilise different separation techniques, including centrifugation, adsorption and filtration.

The procedures vary in length depending on the condition being treated and the clinical status of the patient. Procedure times can range from around 90 minutes up to 4 or 5 hours.



Terumo Optia

Collection and exchange procedures e.g. stem cell collection and plasma exchange



Therakos Cellex

Extracorporeal photopheresis



Fresenius Art Universal

Lipid apheresis



Our structure

NHSBT is an NHS arm's length body. TAS forms part of NHSBT's Clinical Services and is managed by a multidisciplinary senior management team.

Our services are delivered by highly experienced medical and nursing teams. Each of our units is clinically-led by a dedicated apheresis consultant. The consultant is supported by a team of experienced apheresis nurses who are highly skilled in the delivery of apheresis procedures. The local team is managed by a lead nurse.

The contact details of our consultants and lead nurses are available on our website hospital.blood.co.uk/TAS

Treatment costs

Pricing of NHSBT services is governed by the Department of Health's National Commissioning Group (NCG) for blood. Prices are set to recover costs only and are reviewed annually. Prices for Therapeutic Apheresis Services are determined on a cost per procedure basis and are fully inclusive of medical, nursing and consumable costs (price lists are available via your local TAS consultant/lead nurse).

Billing

NHSBT will invoice the respective NHS trust on a monthly basis for each procedure undertaken.

Funding for extracorporeal photopheresis services

NHSBT has a contract with NHS England for the provision of extracorporeal photopheresis (ECP) for patients suffering with cutaneous T-cell lymphoma and chronic and acute graft versus host disease (as outlined by the Treatments for graft versus host disease (GvHD) following haematopoietic stem cell transplantation NHS England: 16069/P commissioning policy).

Other clinical conditions which fall outside of this policy, but where ECP may have benefit, such as solid organ transplantation, are subject to funding by an individual funding request.



Key steps to working with us to commence a new service

We would be delighted to meet with you to discuss how we might work together. In advance of this it would be helpful if you gave consideration to the following questions:

- Which services are to be provided and how many patients and procedures are you forecasting?
- Where will patients be treated – a TAS Unit or elsewhere? If not TAS, is there suitable space available?
- Medical and nursing cover: which medical/nursing care team will patients be under while having the apheresis procedure?
- Do you anticipate any patients will be emergency out of hours?
- Who currently provides this service for you?
- Has funding been agreed?
- When do you want this new service to start?
- It may also be useful for you to review the operational considerations below/on the next page.

Once the nature of the request is understood, any new service will be subject to the NHSBT approval process. Upon approval, a service development manager or equivalent will work collaboratively with you to manage the implementation of the new service. Regular meetings will be held with all stakeholders. The first step is to email TherapeuticApheresisServices@nhsbt.nhs.uk.

Operational considerations

Operational considerations will depend on the type of service that is being requested. Below is the typical operational pathway and each step will need to be considered and agreed for the establishment of the new service:

1. Referral	2. Treatment planning	3. Procedure	4. Post procedure
▲ Review referral	● Appointment: • Date/time ● Location: ▲ TAS unit Non-TAS unit	● Consent of procedure: ▲ • Has capacity • Lacks capacity	● Handover
● Approve referral		● Apheresis procedure	▲ Review of post-blood results
● Communicate outcome	● IV access: • TAS unit (peripheral) ▲ • TAS unit (CVC) ▲ • Non-TAS unit (peripheral or CVC)	■ Nursing & medical care during procedure	● Booking of next appointment (if applicable)
● Prescribe treatment plan	▲ Transport	● Post-blood samples: ▲ • TAS unit • Non-TAS unit	▲ Patient ongoing clinical management/responsibility
	▲ Pre-blood samples	● Equipment: ■ • TAS unit • Non-TAS unit	● Discharge (for outpatients)
	■ Ordering of blood products: • TAS unit ▲ • Non-TAS unit		▲ IV access ongoing care and responsibility

Key

- ▲ Customer
- TAS
- Both

Further information and contact details

Further information about our services, including full contact details of TAS unit staff, can be obtained via the TAS hospital and patient-facing web pages:

Hospital-facing web pages

Therapeutic Apheresis Services - Hospitals and Science - NHSBT

Patient-facing web pages

Therapeutic apheresis - NHS Blood and Transplant

Learn more about TAS on Youtube:

Therapeutic Apheresis Services (TAS)

Other useful websites

American Society for Apheresis (ASFA)
apheresis.org

British Society of Blood and Marrow Transplantation (BSBMT)
b-s-h.org.uk/guidelines

The British Committee for Standards in Haematology (BCSH)
bcshguidelines.com

European Group for Blood and Marrow Transplantation
ebmt.org

Heart UK
heartuk.org.uk

Sickle Cell Society
sicklecellsociety.org

NHS Blood and Transplant

NHS Blood and Transplant (NHSBT) saves and improves lives by providing a safe, reliable and efficient supply of blood and associated services to the NHS in England. We are the organ donor organisation for the UK and are responsible for matching and allocating donated organs. We rely on thousands of members of the public who voluntarily donate their blood, organs, tissues and stem cells.

For more information

Email TherapeuticApheresisServices@nhsbt.nhs.uk

Website: <https://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/>