

A young man with short, dark, curly hair is smiling warmly at the camera. He is wearing a dark brown blazer over a black turtleneck sweater. A blue lanyard with the word 'Saving' printed on it is around his neck. He is sitting in a blue hospital chair, with his hands clasped in his lap. The background shows a clinical setting with blue curtains and other hospital furniture.

Therapeutic Apheresis Services
Annual Review
2016/17

NHS Blood and Transplant (NHSBT) is a major provider of Therapeutic Apheresis Services (TAS) in the NHS. Services are provided across England.



TREATMENTS PROVIDED IN 2016/17

In 2016/17 TAS completed approximately 6,500 treatments for over 1,300 patients. The demand for apheresis services is increasing every year for patients across a wide range of clinical specialities.



IMPROVING PATIENT AND DONOR ACCESS TO SPECIALISED TREATMENTS

Automated Red Cell Exchange Service – Birmingham

In August 2016, in collaboration with Sandwell and West Birmingham NHS Foundation Trust and the West Midlands Commissioning Group, TAS commenced a new regional Automated Red Cell Exchange service to support patients living with Sickle Cell disease. This new service ensures that patients are treated in their local area.

Paediatric Automated Red Cell Exchange Clinic Leeds

In 2016, TAS set up an Automated Red Cell Exchange clinic for paediatrics at Leeds Children's Hospital. The clinic currently treats approximately nine patients per week and ensures that children from across the Yorkshire region have access to optimal treatment.

TAS are working with other NHS Trusts to identify how we can better support the provision of Automated Red Cell Exchange services for Sickle Cell patients in England.

Use of the Glycosorb column for immunoadsorption of anti A and anti B antibodies in mismatched solid organ transplantation

In collaboration with Leeds Teaching Hospitals NHS Trust, TAS completed a service evaluation of the Glycosorb® column with a plasma separator (Spectra Optia®) to support an ABO incompatible kidney transplant patient. The column removes blood group-specific antibodies from the recipient in an extracorporeal blood treatment and reduces the patient's titre levels.

The evaluation was successful and NHSBT can now provide this service for ABO incompatible solid organ transplant patients.

Please contact your local TAS team to discuss provision of immunoadsorption services.





SERVICE DEVELOPMENT INITIATIVES

Patient Experience Survey

We were delighted that 93% of patients rated their overall satisfaction with TAS services as 9 or 10 out of 10 in our 2016/17 patient's experience survey.

The full report can be downloaded from our webpages: <http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/patient-and-user-feedback/>

User Satisfaction Survey

We were pleased that 71% of service users rated their overall satisfaction with TAS services as 9 or 10 out of 10 in this year's satisfaction survey. We will be working to implement recommendations from this survey in the coming months.

The survey report is available on our webpages: <http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/patient-and-user-feedback/>

Launch of a South West Regional Apheresis Roadmap

In collaboration with the South West Regional Transfusion Committee, TAS has launched a regional apheresis roadmap which provides clarity of referral pathways, by clinical speciality, for Trusts across the South West.

We plan to roll out similar roadmaps for other regions over the next twelve months.

The roadmap, along with other regional roadmap information, is available on our webpages: <http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/how-to-make-patient-referrals-to-tas/>

Regional Stem Cell and Bone Marrow Collection Services for the Anthony Nolan

In collaboration with Sheffield Teaching Hospitals NHS Foundation Trust, TAS has provided a regional stem cell and bone marrow collection service to the Anthony Nolan registry since 2012.

We are delighted that we will continue to support registry collections from our unit at the Royal Hallamshire Hospital in Sheffield and look to further expand our collaboration with Anthony Nolan to support transplantation in the UK.



Supporting Venous Access Technology Trial

Use of peripheral veins to undertake patient treatments is not always possible. Birmingham TAS recently undertook an evaluation of the LINC medicals Veinpicity device. We have had favourable feedback from both nurses and patients regarding use of this device.

We will now routinely utilise this technology to reduce the need for central line provision.

Clinical Trial Support

We are committed to supporting clinical trial activity for both the NHS and commercial sectors to support the development of new treatments and therapies. We already support over thirty clinical trials and are uniquely positioned to provide not only apheresis services but also wider support services.

NHSBT is aware that there is increasing demand for leukapheresis from healthy donor volunteers to support immunotherapy investigational product development projects and are currently scoping an organisational strategy around provision of these services.

If you are interested in obtaining support services in relation to clinical trial activity, please contact us: therapeuticapheresisservices@nhsbt.nhs.uk.

PRICING

We are pleased to advise that for the fifth consecutive year there has been no pricing increase for provision of TAS services.

NHSBT will be completing a national review of pricing for provision of TAS services from 2018/19 to ensure they remain as cost effective as possible.

Pricing for NHSBT services is governed by the Department of Health's National Commissioning Group for Blood.

QUALITY AND REGULATION

We are proud of our long-standing history of providing services which meet high standards of safety and regulatory compliance. We are the only area of NHSBT that provides treatments directly to patients and therefore, our number one priority will always be the safety of our patients and the quality of the services we provide.

During 2016/17, all our units retained their compliance with the Human Tissue Authority (HTA) and Joint Accreditation Committee – ISCT (Europe) and EMBT (JACIE).

In addition to compliance with external bodies, we have undertaken several internal audits. Including:

- Audit of stem cell collection efficiency
- A rolling audit programme covering: infection prevention control, transfusion practice, medicines management, patient documentation and consent.



PRIORITIES FOR NEXT YEAR

Review of Service Delivery Models

We recognise that many of our patients attending for treatment on a regular basis may benefit from treatment at the weekends or outside of 'normal' working hours. TAS is therefore reviewing its current service delivery models with a view to extending working days and providing some routine weekend services for patients.

Our TAS service will relocate into a hub and spoke model at Royal Liverpool Hospital and the Clatterbridge Cancer Centre

Our TAS service in Liverpool will relocate into the new Royal Liverpool and Broadgreen University Hospitals NHS Foundation Trust once building works have been completed. TAS will also provide an on-site Stem Cell and Extracorporeal Photopheresis service at the Clatterbridge Cancer Centre (anticipated 2018).

Electronic Patient Referrals

TAS will improve patient referrals by launching an electronic patient referral system from our NHSBT Hospital & Science website.

Improve equity of access to Therapeutic Apheresis Services for patients

Over the next twelve months we will:

1. Work in collaboration with clinicians in the South West to ensure patients living in the Peninsula have local access to plasma exchange and extracorporeal photopheresis
2. Deliver extracorporeal photopheresis treatments for patients with acute GvHD in response to the new NHS England published commissioning policy for the treatment of GvHD
3. Work with NHS Trust colleagues and NHS England to ensure that patients with Sickle Cell have access to Automated Red Cell Exchange services in a geographically appropriate location.



THERAPEUTIC APHERESIS SERVICES

PROCEDURE PORTFOLIO

Extracorporeal Photopheresis

Integrated two-stage procedure involving the collection and removal of white cells, which are treated with a photo activated drug and exposed to ultraviolet light then returned to the patient. Used for the treatment of Cutaneous T cell Lymphoma and Chronic Graft versus Host Disease (a side effect in some bone marrow transplants).

Therapeutic Plasma Exchange

Removal of disease mediators or to substitute missing or defective constituents in the plasma for the treatment of a wide range of patients across a number of clinical specialities. The process removes the patient's plasma and replaces it with either fresh frozen plasma components or refined plasma products.

Peripheral Blood Stem Cell Collection

Used in bone marrow transplantation for the treatment of some blood cancers and solid tumours. Stem cells are collected from either patients, for use in their own treatment, or from donors. The procedure separates the blood and removes only the specific white blood layer which contains the stem cells then returns the remainder of the blood back to the patient or donor.

Low Density Lipid Removal

Removal of low density lipid cholesterol molecules, using absorption technology, in patients with hereditary high levels of cholesterol who do not respond adequately to cholesterol lowering drugs and low fat diet.

Lymphocyte Collection

This collection process is very similar to the collection of stem cells. Lymphocytes (a type of white blood cell) are collected from donors who have previously donated stem cells to further support the patient in their treatment by helping to induce a beneficial graft vs. disease effect.

Automated Red Cell Exchange

Performed in a procedure similar to plasma exchange in which red cells are removed and replaced. Red cell exchange is used for the treatment of red cell disorders or diseases such as sickle cell disease or some cases of malaria.

White Cell Depletion

Performed on patients newly diagnosed with leukaemia who have excessively high levels of white cells in their blood in a procedure similar to stem cell collection.

Red Cell Removal

This procedure removes excess red cells circulating in the blood as a result of a disease called polycythemia. It is similar to a red cell exchange but without the replacement of red cells.

Platelet Depletion

A rare procedure for the removal of large volumes of platelets in patients with very high platelet counts caused by an underlying disease. It is similar to the platelet component collection procedure undertaken on volunteer donors.