



Therapeutic Apheresis Services

Annual Review 2017/18

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

Services are provided across England.



OUR VALUES

Our three core principles are critical to our service, guiding everything we do and inspiring us to be the best.

Caring We care about our donors, their families, the patients we serve, and our people.

Expert We are expert at meeting the needs of those who use our service and those who operate it.

Quality We provide quality products, services and experiences for donors, patients and colleagues.

HIGHLIGHTS OF KEY ACHIEVEMENTS 2017/18



- **Record number of patients treated**

This year we treated almost 1,500 patients across a widening geographical area, making treatments possible and easier for even more patients.

- **Improved Patient access to Automated Red Cell Exchange Services**

Over the last twelve months we have seen a 51% increase in demand for Automated Red Cell Exchange (RCE¹). Expansion of our services in London and Birmingham have led to the provision of treatment for 160 patients.

- **NHSBT named as Paediatric Provider for ECP services in London**

Working in collaboration with NHS England, TAS is now the service provider for Extracorporeal Photopheresis (ECP²) for paediatrics within London.

- **97% Patient satisfaction score**

In November 2017, after seeking the views of our patients (or their carer/relative) our satisfaction survey reported 97% Top Box score.³

- **74% User satisfaction score**

Hospital Clinicians using TAS services for their patients gave a 74% Top Box score in a User Satisfaction Survey performed in February 2018.

- **90% Staff satisfaction with job role score**

90% of staff working in our national team scored 90% for satisfaction with their job roles in an internal staff satisfaction survey.

- **Successful regulatory inspections**

Leeds and Oxford TAS units were successfully inspected by the Human Tissue Authority (HTA) and a joint accreditation inspection by JACIE⁴ with Great Ormond Street Hospital went extremely well.

- **Establishment of a new regional collection centre for allogeneic stem cell collection services**

TAS Oxford, in collaboration with Oxford University Hospital NHS Foundation Trust, established a new regional collection centre for the British Bone Marrow Registry (BBMR).

¹ RCE is a procedure used to minimise the effects of Sickle Cell Disease.

² ECP is commonly used for the treatment of the life limiting condition of Graft versus Host Disease (GvHD) which is frequently seen as a side effect to treatment for leukaemia.

³ Top box scores are the percentage of answers scoring 9/10 or 10/10 to a key question on overall satisfaction.

⁴ JACIE is an international standards and accreditation body focused on bone marrow transplantation units.



Caring ABOUT OUR DONORS, THEIR FAMILIES, OUR STAFF AND THE PATIENTS WE SERVE

Record number of Patients treated

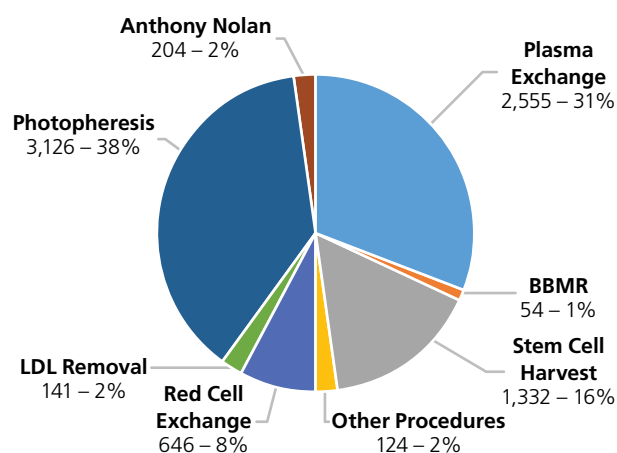
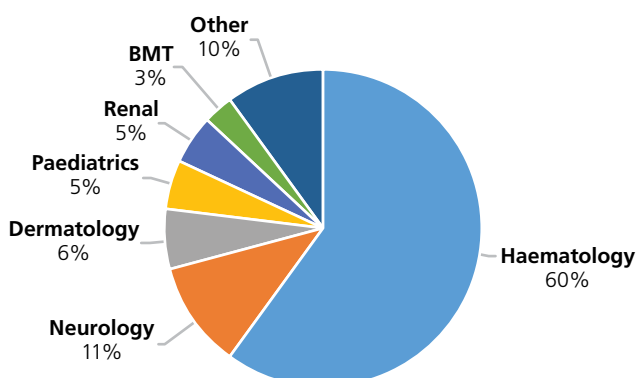
We are delighted to report that during 2017/2018 a record number of patients received lifesaving and life enhancing Therapeutic Apheresis treatment from NHSBT. This is a 9% increase on the number of patients treated compared to the previous year and brings the total number of patients receiving treatment since the commencement of our service in 2012 to 7,244.

TAS have expanded service provision within the London and Birmingham regions, and working with Plymouth University Hospital NHS Trust have established an on-site ECP service. The expansion of our services has allowed wider access and more localised treatments to many patient groups.

It is our ambition to identify areas of unmet patient demand and be the NHS preferred supplier of high quality, cost effective therapeutic apheresis services.

Financial Year	Number of Patients	% Increase
2011/12	947	N/A
2012/13	1,027	8%
2013/14	1,041	1%
2014/15	1,071	3%
2015/16	1,222	14%
2016/17	1,365	12%
2017/18	1,484	9%
Grand Total	7,244	57%

The main type/specialities of procedures performed in 2017/2018.



Improving Patient access to Automated Red Cell Exchange (RCE)

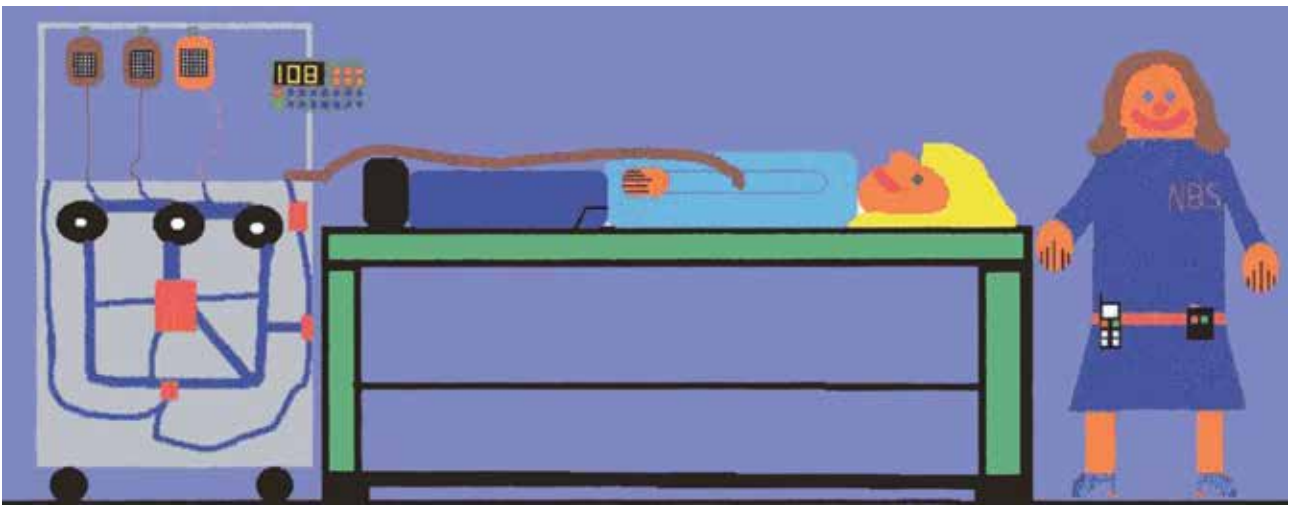
Demand for Automated RCE as a treatment for sickle cell disease is increasing in light of growing clinical evidence and changing guidance. Within its portfolio of services TAS provides Automated RCE for both adults and children, at either the bedside or within one of its therapeutic units. In addition to treating patients in acute sickle cell crisis, Automated RCE is used as a prevention/maintenance therapy helping to improve the quality of life for those patients suffering with this debilitating disease.

We have seen a 51% increase in demand for Automated RCE in 2017/18 when compared to 2016/17. Since 2014, TAS has seen a 287% increase in demand for treatments as the result of two new TAS services in the London and Birmingham regions, as well as an increase in patient demand across the other TAS sites.

Patients with sickle cell disease are normally of black African ethnicity and a significant proportion require Ro subtype blood.

TAS clinical teams are working to support NHSBT with managing the demand for Ro red cells by introducing local initiatives and helping to promote black and ethnic minority recruitment initiatives.





Picture by Mark Baruch, aged 12 – Therapeutic Apheresis Unit, Oxford.

Expert IN MEETING THE NEEDS OF OUR EXTERNAL AND INTERNAL CUSTOMERS AND PARTNERS.

NHSBT named as Paediatric provider of ECP services in London

TAS has been commissioned by NHS England as the paediatric provider of ECP services in London.

ECP therapy is commonly used for the treatment of the life limiting condition of Graft versus Host Disease (GvHD) which is frequently seen as a side effect to treatment for leukaemia.

The result of this fantastic collaboration has led to the local on-site provision of ECP at the paediatric centres providing Bone Marrow Transplant in London. This improved service now positively impacts on the children and families as it reduces need for travel.

ECP provision is also available at TAS centres in Manchester, Liverpool, Bristol and at the new spoke TAS site at Plymouth University Hospital NHS Trust. In total across all the ECP sites, a huge 3,126 treatments were delivered in 2017/18 which is an increase of 70% on the previous year.

74% User Satisfaction Score

Over 300 hospital colleagues who had referred patients to TAS in 2017/18 were sent a User Satisfaction Survey to complete in February 2018. A 74% top box score was achieved from the responding clinicians, with quality of service and clinical advice and timeliness of response to referrals scoring highly.

90% Staff satisfaction

A survey led by one of our band 6 Nurse Practitioners highlighted 90% of staff were satisfied with their job roles in an internal survey carried out in January 2018.

Changes to working hours to reduce the need for on call cover have led to an increased work/life balance reported by staff as well as extending treatment availability for patients.

97% Patient Satisfaction Score

Obtaining information on patient experience and acting on the outcomes to improve future experience is a requirement of the standards set out by the Care Quality Commission (CQC).

A patient satisfaction survey carried out in November 2017 evaluated the views of 170 adult and paediatric patients/donors (or their carer/relative) who received treatment across our units. The survey focused on care and experience of the service, staff demeanour and information provision.

The resulting 97% Top Box score indicates a continued high level of satisfaction with the service provided by TAS with extremely positive results from all locations and the highest levels of overall satisfaction across the survey since it commenced.

The comments provided by users of the services reflect a very positive opinion of the staff and facilities in all the therapeutic apheresis units.





Bristol Therapeutic Apheresis Team.

PROVIDING *Quality* PRODUCTS, SERVICES AND EXPERIENCES FOR DONORS, STAFF AND PATIENTS

Successful regulatory inspections

TAS was inspected in 2017/18 at Oxford and Leeds TAS units by the Human Tissue Authority (HTA). At Great Ormond Street Hospital (GOSH) the first joint JACIE⁵ accreditation inspection was a great success with no major non-compliances.

TAS have also worked with service users at Manchester and Liverpool Children's Hospital supporting their HTA and JACIE inspections with positive comments received about our interaction with these Trusts.

Establishment of a new collection centre for medical and allogeneic stem cell collection services

In collaboration with Oxford University Hospitals NHS Foundation Trust, TAS established a new regional collection centre for the British Bone Marrow Registry (BBMR). Provision of these services will provide BBMR donors from across the South-Central region with access to a collection centre outside of London.

PRIORITIES FOR 18/19

Each year we set out an ambitious set of objectives to further develop and improve our services for patients. Some of our key priorities for 2018/19:

- Continued review of our Service Delivery Models: Improve service provision by extending unit opening hours to better meet patient demand
- Establish a TAS Clinical Database: to further improve governance and oversight of what we do; improve the quality of our patient outcome data; build a worldwide reputation as apheresis clinical experts
- Implement an electronic patient referral system: to respond to our user feedback and make the referral of patients to TAS quicker and easier
- Collaborate with the wider NHS and commercial organisations developing Advanced Cell Therapies to define new opportunities for patient treatment and to increase patient access to treatments to meet unmet patient demand.
- Further invest in teaching programmes for staff to position us as leading experts in this specialist field.

⁵ JACIE is an international standards and accreditation body focused on bone marrow transplantation units.

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.

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. Their generosity means each year we're able to supply around 1.9 million units of blood to hospitals in England and around 4,200 organ and 5,800 tissue donations, which save or improve thousands of lives.

For more information

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

Email therapeuticapheresisservices@nhsbt.nhs.uk

Call **0117 9217 407**