

# Therapeutic Apheresis Services

2013/14 End of Year Review



# Overview

NHS Blood and Transplant (NHSBT) has a long history of providing life-saving and life-enhancing therapeutic apheresis services within the NHS.

Therapeutic Apheresis Services (TAS) provides patients with access to a portfolio of specialised therapies using technology that exchanges, removes, or collects certain components within the blood.

Treatments provided include:

- Therapeutic Plasma Exchange
- Extracorporeal Photopheresis
- Peripheral Blood Stem Cell Collection
- Red Cell Exchange
- Low Density Lipoprotein Removal
- Lymphocyte Collection
- Platelet Depletion
- White Cell Depletion.

For more information on the services we provide, please refer to the procedure portfolio on Page 7 of this document.

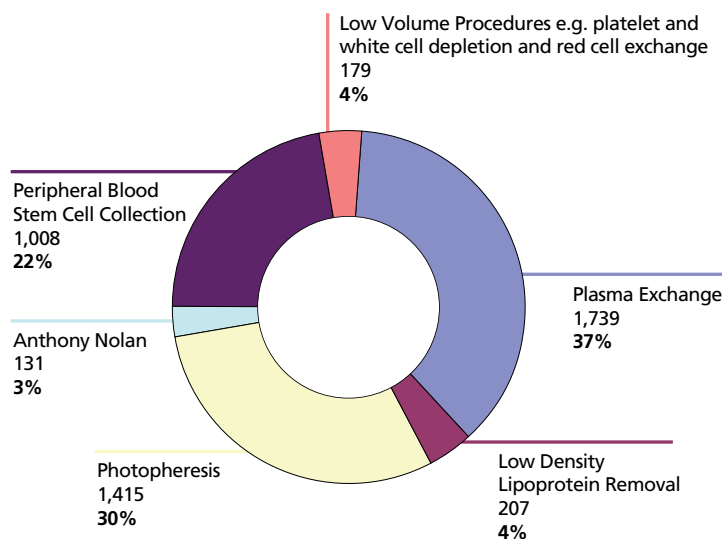
TAS delivers its services from six units which are based within NHS Trusts and which operate an outpatient model for non-acute patient procedures. Delivering services from within an acute setting enables TAS to offer a peripatetic outreach model for paediatrics and acutely unwell patients.

Our units are located in the following Trusts:

- University Hospitals Bristol NHS Foundation Trust (Bristol)
- Oxford University Hospitals NHS Trust (Oxford)
- Sheffield Teaching Hospitals NHS Foundation Trust (Sheffield)
- Leeds Teaching Hospitals NHS Trust (Leeds)
- The Christie NHS Foundation Trust (Manchester)
- Royal Liverpool and Broadgreen University Hospitals NHS Trust (Liverpool).

## Activity Review 2013/14

In 2013/14 TAS provided approximately 4,700 patient treatments.



# An update on TAS key achievements in 2013/14:

## • Strategic Intent

In 2012 the first ever strategic plan for TAS was approved by the NHSBT Board. This important milestone acknowledged the increased demand within the NHS for consolidation of specialist services delivered by centres of excellence. As a national service provider, TAS is uniquely positioned to supply these services to patients.

In November 2013, a performance review was presented to the NHSBT Board highlighting areas of service development and expansion. The review was well received with the Board confirming their continued support of TAS becoming the preferred provider **of high quality, cost effective therapeutic apheresis services** in the NHS.

## • Improving patient and donor access to Specialised Treatments

There is increasing recognition within the NHS that delivery of specialised services should be consolidated and is best delivered by centres of excellence; in addition, it is recognised that there are inequalities with the standard of and access to therapeutic apheresis services in the NHS. As a national provider, NHSBT is uniquely positioned to improve this for patients and is doing so by expanding access to specialist treatments such as Extracorporeal Photopheresis (ECP). A summary of service expansion carried out in 2013/14 and planned for 2014/15 is provided below:

### New ECP Service – Manchester Royal Infirmary

In April 2013, TAS established a new on-site ECP service at the Manchester Royal Infirmary. Provision of this service will help to ensure that acutely unwell adult patients and paediatrics can be treated in the most appropriate clinical environment.

### New ECP Service – Liverpool

In December 2013, TAS launched a new ECP service from its unit based within the Royal Liverpool University Hospital. Provision of this new service ensures that patients within the North West region can access treatment locally (previously patients would need to travel to Manchester to receive treatment).

### New ECP Service – Oxford

In September 2014, we are planning to set up a new ECP service in our Oxford unit. This service will be delivered in collaboration with Oxford University Hospitals NHS Trust. A localised service in Oxford will provide patients from the South of England with improved access to this specialised service (currently patients travel long distances to London or Bristol for treatment).

### Anthony Nolan Regional Collection Centre – Sheffield

In collaboration with Sheffield Teaching Hospitals NHS Foundation Trust, our Sheffield team have provided a regional Stem Cell Collection and Bone Marrow Harvesting service to the Anthony Nolan UK Charity for over two years.

We are delighted that we will continue to provide this important service for a further three years following a successful contract award in March 2014.

This important service enables Anthony Nolan donors in the North of England to donate their Stem Cells or Bone Marrow at a more localised location to their home address (previously these donors would have travelled to London for donation).

# • Service Improvement Initiatives

## Patient Experience Survey

TAS conducts patient experience surveys on a bi-annual basis. A survey carried out in Spring 2013 returned a top box score of 100% across all six TAS units. Our most recent survey was conducted in Autumn 2013 and we again received extremely positive results from all therapeutic apheresis units with 97% of patients rating their overall experience as 9 or 10 out of 10. The next survey will be undertaken in November 2014.

Full survey reports can be downloaded from our hospital facing webpages:

[http://hospital.blood.co.uk/therapeutic\\_apheresis\\_services/patient\\_user\\_feedback/index.asp](http://hospital.blood.co.uk/therapeutic_apheresis_services/patient_user_feedback/index.asp)

## Service User Satisfaction Survey

TAS conducts surveys of user satisfaction on a bi-annual basis in order to better understand service user needs and inform strategic planning for the function.

The most recent service user satisfaction survey was carried out in January 2014. This survey returned positive results with a top box score (score of 9 or 10 out of 10) of 56% for overall satisfaction with the services provided.

A full report from the January survey will be available shortly. Previous survey reports can be downloaded via our hospital facing webpages:

[http://hospital.blood.co.uk/therapeutic\\_apheresis\\_services/patient\\_user\\_feedback/index.asp](http://hospital.blood.co.uk/therapeutic_apheresis_services/patient_user_feedback/index.asp)

## Relocation of TAS Units

Given the clinical nature of the services we provide, our units are located in large NHS Trusts. There has been considerable investment to optimise our unit space and unit locations across the country. An overview of unit relocations from last year and planned relocations next year is provided below:

**Sheffield:** In July 2013, the Sheffield Therapeutic Apheresis team relocated into a larger clinical space within its host Trust, Sheffield Teaching Hospitals NHS Foundation Trust. This important relocation enables us to treat an increased number of patients from across the region and expand our Stem Cell collection service for the Anthony Nolan UK Charity.

**Liverpool:** In August 2013, the Liverpool TAS unit relocated into a larger, more clinically appropriate environment within the Royal Liverpool and Broadgreen University Hospitals NHS Trust (RLUH). Our unit will also relocate, along with the RLUH Haematology department, into the hospital new build scheduled for completion in 2016.

**Bristol:** In March 2014, the Bristol TAS unit relocated from the Blood Donor Centre at Southmead Hospital (part of North Bristol NHS Trust) into a new purpose built unit within the new Haematology and Oncology Centre at University Hospitals Bristol NHS Foundation Trust. This important relocation ensures that patients from across the South West region are treated in the most appropriate clinical environment and that the TAS team have access to the relevant clinical support services.

**Oxford:** The Oxford TAS unit is currently based within the Blood Donor Centre at Oxford University Hospitals NHS Trust. Plans are underway to relocate this unit into a larger clinical environment within the Trust. This relocation will enable us to increase the number of treatment beds in response to a growing demand for therapies from within the region.

## North West Therapeutic Apheresis Roadmap

Over the past 18 months, a project team from TAS have been working with colleagues from the North West Regional Transfusion Committee to improve the clarity of referral pathways for therapeutic apheresis in the North West of England and North Wales.

The objective of this initiative is to publish a Therapeutic Apheresis 'Roadmap' which highlights to service users their therapeutic apheresis providers and how they access these services.

A full report documenting the findings of the project is currently being compiled and will be launched at an educational event on 8 May 2014.

The report will be available to download from our hospitals webpages once available:

[http://hospital.blood.co.uk/therapeutic\\_apheresis\\_services/make\\_referrals\\_to\\_sts/index.asp](http://hospital.blood.co.uk/therapeutic_apheresis_services/make_referrals_to_sts/index.asp)

## Therasorb Service Evaluation Leeds

Over the last 12 months, the Leeds TAS team have been working in collaboration with the renal team from Leeds Teaching Hospitals NHS Trust, to carry out Immunoabsorption for patients receiving ABO incompatible kidney transplants.

This service evaluation has been supported by Miltenyi Biotec, using their Life 18 Therasorb machine. The outcome of this evaluation will help inform our developing strategy for the provision of lipoprotein apheresis and Immunoabsorption services for the NHS.

## National Review of Therapeutic Apheresis Pricing

In order to provide the most cost effective services to the NHS, TAS has completed a comprehensive review of therapeutic apheresis pricing across its portfolio of services.

There has been no generic or inflationary uplift of our prices for over two years. The outcome of our pricing review offers an overall 1% reduction in the cost of our therapies to the NHS in 2014/15 (there has been some realignment of treatment prices up and down to harmonise prices across the regional centres).

The 2014/15 Service Level Agreements, reflecting these new prices, were distributed to Chief Executives for signature at the beginning of March 2014. A copy of the clinical services section of the agreement will be sent separately (via e-mail) to referring clinicians and service users for reference.

## • Quality and Compliance

One of the main strategic objectives for TAS is to provide apheresis therapies that meet the highest standards of safety and regulatory compliance. TAS is the only area of NHSBT where treatment is provided directly to NHS patients and therefore our first priority will always be their safety and the quality of their experience.

TAS has a longstanding exemplary performance in this area having never received an external major or critical non compliance and no attributable Serious Untoward Incidents.

In 2013/14, each TAS unit was inspected by the Care Quality Commission and found to be fully compliant with all essential standards for quality and safety. Units are also regulated by the Human Tissue Authority and accredited by the Joint Accreditation Committee – ISCT (Europe) & EBMT (JACIE).

In addition to regulation via external inspection bodies, TAS also undertakes a range of internal audits of practice. Over the last twelve months, these have included:

- Audit of Infection Control Practice
- Audit of Consent Practice
- Re-audit of Transfusion Knowledge & Practice in Apheresis Units.



# • Looking ahead to 2014/15

We have an ambitious agenda for 2014/15 with an overall objective of providing more life-enhancing and life-saving treatments to patients. We also have a number of key strategic objectives:

- Implementation of a 24/7 on call service for the treatment of Thrombotic Thrombocytopenic Purpura and other Thrombotic Microangiopathies in response to the guidelines on the diagnosis and management of these specialised conditions
- Continued expansion of Extracorporeal Photopheresis services
- Completion of market analysis to inform future demand for apheresis therapies
- Development of a strategy for the future provision of lipoprotein and immunoabsorption services for the NHS.

In September 2014, TAS will be launching a Therapeutic Apheresis service portfolio which will provide detailed information on the services we provide as well as information on referral and treatment pathways. A copy of this document will be sent to all service users.

**For more information on TAS please visit our webpages:**

Hospital facing: [http://hospital.blood.co.uk/therapeutic\\_apheresis\\_services/](http://hospital.blood.co.uk/therapeutic_apheresis_services/)

Patient facing: [http://www.blood.co.uk/information-for-patients/therapeutic\\_apheresis\\_services/](http://www.blood.co.uk/information-for-patients/therapeutic_apheresis_services/)

Or contact us: [therapeuticapheresisservices@nhsbt.nhs.uk](mailto:therapeuticapheresisservices@nhsbt.nhs.uk)



# 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.

### 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 and reliable supply of blood components, organs, stem cells, tissues and related services to the NHS, and other UK health services.

We manage the UK-wide voluntary donation system for blood, tissues, organs and stem cells, and turn these donations into products that can be used safely to save lives or radically improve the quality of people's lives.

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 two million units of blood to hospitals in England and North Wales and 7,500 organ and tissue donations, which save or improve thousands more people's lives.

### **For more information about NHS Blood and Transplant**

**Visit** [nhsbt.nhs.uk](https://nhsbt.nhs.uk)

**Email** [enquiries@nhsbt.nhs.uk](mailto:enquiries@nhsbt.nhs.uk)

**Call** **0300 123 23 23**