Issue 1, February 2018

NHS Blood and Transplant

Therapeutic Apheresis Services Newsletter

Welcome

Welcome to the first newsletter from NHS Blood and Transplant's (NHSBT) Therapeutic Apheresis Services (TAS) team. The purpose of this communication is to provide service users with an overview of the key initiatives we are undertaking to improve patient access to services and treatment provision across England.

Newsletters will be issued on a bi-annual basis and will focus on a specific clinical speciality; this edition will focus on the work we are doing to support patients with Sickle Cell disease.

We hope you enjoy reading this update; if you have any specific ideas/information you would like to see in future editions please do contact us at:
therapeuticapheresisservices@nhsbt.nhs.uk

Who are we?

NHSBT is a major provider of Therapeutic Apheresis Services in the NHS. We provide both adults and children with access to a portfolio of therapies using technology that exchanges, removes, or collects certain components within the blood.

Our national service is provided by eight clinical teams that are based within NHS Trusts across England.

We operate an out-patient model for non-acute patient procedures as well as a peripatetic outreach model for children and acutely unwell patients. We provide 24/7 services to support emergency patient treatment 365 days per year.

The main apheresis procedures provided within our portfolio are:

- Therapeutic Plasma Exchange (centrifugal)
- Peripheral Blood Stem Cell Collection
- Extracorporael Photopheresis
- Automated Red Cell Exchange
- Low Density Lipoprotein.

In addition to the above, we also provide low volume frequency treatments such as Lymphocyte collection, White Cell and Platelet Depletion. In addition, we can provide immunoadsorbtion therapy using the Glycorex column technology.

NHSBT has the biggest installed base of therapeutic apheresis equipment in the NHS.

More information on our services can be found on our webpages at:
http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/

Improving Patient Access to Treatment; A Focus on Automated Red Cell Exchange

There are inequalities in patient access to therapeutic apheresis services across England. Our ambition is to ensure that patients have local access to treatment and we work closely with our Trust clinical colleagues to achieve this.

In February 2016, NICE published a recommendation that Spectra Optia should be used for Automated Red Cell Exchange for patients suffering with Sickle Cell disease. NICE also issued a 'do not do' recommendation around the use of manual or top up transfusion to support these patients.

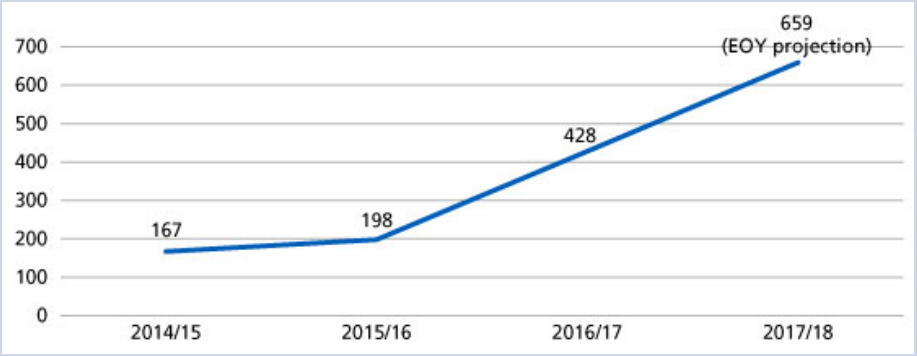
We have been working closely with clinical colleagues to support patient access to automated red cell exchange in areas which do not have access to apheresis support; we have also been working to provide more localised patient access in areas with geographical challenges.

Our national team have been working with key external stakeholders such as the Sickle Cell Society to better understand unmet patient demand and how we can support this for both adults and children.

One of our key achievements is the establishment of a regional automated red cell exchange service in the West Midlands. Previously these patients would have needed to travel to London to access treatment or alternatively, gone without.

In addition, we have set up a number of bespoke clinics in both the North and South of England to support children and adults. This means that these patients can access treatment closer to home.

Demand
Since 2014, we have seen a 295% increase in demand for automated red cell exchange. This increase in demand is currently supporting treatment for more than 180 patients.



Ro Subtype Blood Demand

Approximately 60% of all Sickle Cell patients in England require Ro subtype blood.
The number of red cells for each automated red cell exchange is variable, but we are currently using on average 7 units.

Demand for Ro units continues to grow nationally at around 15% year on year as the patient cohort increases and more hospitals move to automatic exchange procedures.

NHSBT is working on a number of initiatives to ensure we can continue to meet demand and minimise product substitutions as much as possible, including:

- Recruit an additional 40,000 new black blood donors
- Improving internal processes to ensure we are making the most of each Ro donation
- Working with hospitals around consolidation of Ro orders and minimising product wastage
- Working with hospitals to provide NHSBT with early notice of a need for Ro units (3-5 days notice) to ensure appropriate units are available in the Stock Holding Units to meet the order.

Sickle Cell Patient Case Study

Background information

Sam was being treated for malaria when diagnosed with sickle cell disease at the age of five years. He was seen at his local hospital for the first time in September 2007. He presented with pain in both elbows and his right shin which had started three days before. He presented with a history of multiple crises per year, usually affecting his elbows, ankles, thighs and lower back. Pain was controlled using analgesics including morphine, diclofenac and paracetamol. He would normally be admitted to hospital for five days or more, affecting his school attendance, academic record and ultimately his quality of life.

Red cell exchange programme

Sam was originally referred to the Oxford Therapeutic Apheresis Unit in 2010 for Automated Red Cell Exchange following repeated hospital admissions for painful crises. His ongoing problems included severe right avascular necrosis which resulted in limited mobility despite the use of crutches; back pain due to vertebral collapse and painful legs.

Treatment	Pre Auto RCE Hbs	Post Auto RCE Hbs
1	86.4	19.9
2	36.6	27.7
3	55.7	25.6
4	59.4	23.9
5	67.2	17.6
9	47.7	12.9
7	44.4	11.4
8	48.1	9.5
9	65.7	15.0

He commenced an automated red cell exchange programme in June 2010. He is currently being exchanged every 6-8 weeks. Since then his condition has improved considerably, he is extremely well in himself and there has been improvements to his avascular necrosis to such an extent that he is now independently mobile.

Sam is a very active young man. He enjoys swimming, cycling and last year he climbed Kilimanjaro. Sam is now studying mathematics and economics at University.

Sam: Sickle Cell patient Oxford

Patient and Service User Satisfaction

We complete a review of patient and service user satisfaction on an annual basis.

In 2017, 97% of patients rated their experience with us as 9 or 10 out of 10. We will shortly be undertaking our annual survey for referring clinicians and thank you in anticipation for your support in responding.

More Flexible Treatment Options for Patients

Many of the patients treated by our team require long-term, regular treatment which can have a huge impact on their lives.

To provide patients with most flexible appointment options we have introduced longer working days across the most of our units. From January 2018, we will also be providing routine services on a Saturday for patients in Liverpool.

Contact us:
TherapeuticApheresisServices@nhsbt.nhs.uk

Visit our website:
http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services