NHS Blood and Transplant

Board Meeting in Public

Tuesday, 24 March 2026

Title of Paper	Board Patient Story	**Agenda No.**	2.1
Nature of Paper	☒ Official	☐ Official Sensitive	
Author(s)	James Griffin, Medical Director Cell, Apheresis & Gene Therapies		
Lead Executive	Gail Miflin, Chief Medical Officer		
Non-Executive Director Sponsor	N/A		
Presenter(s) at Meeting	Gail Miflin, Chief Medical Officer		
Presented for	☐ Approval ☒ Information ☐ Assurance ☐ Update		
Is there a plan to communicate this to the organisation?	☐ Yes	☒ No	☐ Yet to be determined

Executive Summary

Post Transplant Cyclophosphamide (PTCy) reduces harmful immune reactions following transplant and so makes it safe to use donors who are only partially matched. Currently, patients from minority ethnic backgrounds are far less likely to find a fully matched donor (as low as 15 – 45% for some groups, compared to c75% for white individuals so this has huge implications for improving current health inequalities. The paper tells the story of a patient, Lizzie Lilley, who had a successful transplant from an unrelated donor.

Previously Considered by

N/A

Recommendation

This paper is presented for information only

Risk(s) identified (Link to Board Assurance Framework Risks)

N/A

Strategic Objective(s) this paper relates to:

☐ Collaborate with partners	☐ Invest in people and culture	☒ Drive innovation
☐ Modernise our operations	☐ Grow and diversify our donor base	

Appendices:

Post-Transplant Cyclophosphamide (PTCy) Expanding Access to Stem Cell Transplantation

Stem cell transplantation is a vital treatment for many life-threatening blood cancers and marrow disorders. Successful transplantation requires compatibility between donor and patient, based on tissue markers known as HLA types. Historically, patients from minority ethnic backgrounds have been far less likely to find a fully matched donor—only 15–45% in some groups compared with roughly 75% in White individuals—leading to entrenched inequalities in access to life-saving treatment.
Post-transplant cyclophosphamide (PTCy) is transforming this landscape. By reducing harmful immune reactions after transplant, PTCy makes it safe to use partially matched ("mismatched") donors. Large international studies now show that survival and complication rates for mismatched donor transplants using PTCy are comparable to those using fully matched donors. This development has major implications for equity, as it opens transplantation to many patients who previously had no suitable donor. The chance of finding a well enough matched donor for a transplant using PTCy is > 95% in all ethnic groups.

Evidence of Impact

- Studies demonstrate one-year survival rates of 79–86% in mismatched donor transplants with PTCy—essentially equivalent to well-matched transplants. Rates of relapse and both acute and chronic graft-versus-host disease (GVHD) are also similar.
- These findings apply across ethnic groups, confirming that PTCy can help overcome long-standing barriers in donor matching.

The UK is playing a leading role in this field:

- The **Methods of T Cell Depletion** (**MoTD) trial**, delivered through the national **IMPACT trials network**, is one of the country's largest stem cell transplant studies and is generating key evidence on the safest and most effective use of PTCy including in matched transplants.
- The research infrastructure to support the MoTD trial was delivered through ACT Ltd supported by multi-partner funding, including **NHSBT**, which enables large-scale, practice-changing trials such as this.

NHSBT's Role

NHS Blood & Transplant plays a central national role in ensuring that innovations like PTCy translate rapidly into equitable clinical practice:

- As sponsor of the **UK Stem Cell Strategic Forum**, NHSBT convenes national experts to set long-term strategy, improve equity of access, and strengthen the UK's research and donor-registry infrastructure.
- Funding the **IMPACT** network and **ACT Ltd** has enabled hundreds of patients to enter clinical transplant trials that would not have otherwise been possible.
- Working with **BSBMTCT** and the transplant community, NHSBT has helped rapidly develop and publish UK consensus guidance on the use of PTCy in both matched and mismatched donor transplantation. This guidance explicitly supports wider use of PTCy to improve access for mixed-heritage and minority ethnic patients.

Patient story

Mrs Lizzie Lilley is one of the patients who has added to the evidence base for PTCy by enrolling into the MoTD trial for her transplant in Bristol. She had been diagnosed with Acute Myeloid Leukaemia in early 2023. After induction chemotherapy, she was able to proceed to an unrelated donor transplant. The IMPACT funded nurse Pete Robertson approached her at the first appointment at the transplant centre to offer entry into the MoTD trial. Mrs Lilley was originally from Sweden and needed a transplant from an unrelated donor.
She said that she was '*keen to be able to do something that would help future patients*' and didn't think twice about receiving trial treatment. She was randomised to receive PTCy.
She says '*I had so many drug infusions that I didn't even notice the trial drugs. I was very lucky and other than one allergic reaction where my face swelled up, I have had hardly any side effects*'.
Mrs Lilley is now nearly 30 months out from the transplant and is in molecular remission from her leukaemia without GvHD. The MoTD trial has completed recruitment, and the data is expected to be published towards the end of this year.

Conclusion

PTCy represents a major advance with direct relevance to NHSBT's commitment to reducing health inequalities. By making mismatched donor transplantation safer and more effective, PTCy greatly increases the number of patients who can receive curative treatment. NHSBT is helping ensure this innovation benefits patients across the UK—fairly, consistently, and at pace.