

Evidence submission for the APPG on Ethnicity Transplantation and Transfusion – stem cell transplantation

September 2025

The importance of a well-matched donor

Stem cell transplantation is used to treat forms of malignant and non-malignant conditions. For an effective donor stem cell transplant, it is important that the Human Leukocyte Antigens (HLA) of the donor and recipient are well matched. Often stem cells can come from a closely related family donor. When this is not possible, cells must be obtained from an unrelated donor, and it is important they are as closely matched as possible. Unrelated donors are found by searching the UK Aligned Stem Cell Registry and other stem cell registries around the world through the World Marrow Donor Association. The choice of donor is made by the medical team, who choose the donor they feel will be best for their patient, whether that is a donor available in the UK or one available overseas.

New clinical protocols are being adopted in the UK which will allow mismatched donors to be selected for harder to match patients. This will facilitate the use of more UK donors for UK patients and contribute to reducing health inequities related to ethnicity.

Health inequalities and stem cell transplant

Ethnic minority and mixed-race patients requiring a stem cell transplant from an unrelated donor are harder to match than white northern European patients within the UK population. This is because there are much smaller pools of potential donors registered globally and greater heterogeneity of Human Leukocyte Antigen tissue types. We know that patients with minority ethnicity backgrounds are less likely to find an unrelated donor with a good match than patients of European heritage, and the UK Aligned Registry members are updating their analysis to understand how access to unrelated donors for patients from a minority ethnic background has changed in recent years.

The importance of a UK stem supply for resilience, sustainability and cost effectiveness

An independent UK stem cell supply is important to reduce reliance on imported stem cells which rely on global supply chains that can be vulnerable to disruption. A greater domestic supply also provides clear cost savings and can help to retain and re-invest NHS financial resource in strengthening the stem cell and advanced therapy ecosystem.

To ensure sustainability and resilience of the UK stem cell supply the UK Stem Cell Strategic Forum¹, which is responsible for providing expert advice to the department, recommends a 45% share for UK-to-UK donor to recipient provision. In 2024/25, UK-to-UK provision stood at 24%. DHSC's Stem Cell Programme (see below) has made progress on improving diversity

¹ The UK Stem Cell Strategic Forum is a multi-disciplinary group formed in 2010 at the request of the Department of Health and Social Care. It is chaired by Professor Charles Craddock, and makes recommendations on improving outcomes for stem cell transplant recipients across the UK. The Forum's most recent report (['A 10-Year Vision for Stem Cell Transplant and Cellular Therapies'](#)) was published in 2022. In 2019, the Forum's remit was expanded to include advanced cellular therapies, given its potential to transform clinical outcomes.

and resilience of the registry, and we continue to work with NHS Blood and Transplant (NHSBT) and other registry members to meet the suggested target.

Steps to increase resilience and sustainability of UK stem cell supply and to address health inequalities

A) DHSC stem cell programme

- Between 2011 and 2023, the DHSC Stem Cell Programme has invested over £30 million to enhance clinical outcomes and access to stem cell transplants. This funding has facilitated the creation of a unified stem cell registry, a cord stem cell bank (see below), and a strategy for diverse donor recruitment, focusing on reducing health inequalities. The programme has been jointly delivered by NHSBT and Anthony Nolan.
- Between 2022 and 2025, the Programme has provided £2.4 million of funding to Anthony Nolan and NHSBT for a 3-year targeted stem cell donor recruitment campaign. The approach has focused on increasing sustainability and resilience of the UK stem cell supply by recruiting donors most likely to donate (male donors aged 16 to 30), and addressing health inequalities with targeted campaigns to recruit donors from ethnic minorities. Funding to both organisations has been extended by 1 year (2025/26).
- Examples of work undertaken through the programme include:
 - supporting specific patients from minority ethnic backgrounds through dedicated appeals, which helps to recruit ethnic minority donors more broadly (56% of those recruited through appeals events were from minority ethnic backgrounds), and running targeted campaigns through Ramadan
 - an NHSBT pilot using event assistants, who are available to explain stem cell donation at blood donation sessions, which has a positive impact on recruitment
- Good progress has been made against recruitment targets, with NHSBT reporting a 10 year high in stem cell donations from Black, Asian and mixed ethnicity donors in June 2025. In 2024/25, 29% of the people added to the Anthony Nolan register were from minority ethnic backgrounds showing significant investment in targeting diverse communities.
- By increasing the pool of potential donors, the programme seeks to improve the availability of matches in the UK, ultimately reducing waiting times for patients in need of stem cell treatment.

B) Anthony Nolan and NHS Cord Blood Banks

- £20 million of the funding for the DHSC Stem Cell Programme was invested to create the public UK Cord Blood Bank, a partnership between NHS Blood and Transplant and Anthony Nolan.
- Cord blood is the blood that remains in the placenta and umbilical cord, and is rich in blood stem cells, these stem cells can be used to treat many different cancers, immune deficiencies and genetic disorders.
A major benefit of cord stem cells compared to adult stem cells is that donors and patients don't need to be an exact match, as the stem cells in cord blood aren't mature

and can develop to suit their recipient. Cord blood can be a great option for people from minority and mixed ethnic backgrounds, who it can be harder to find a match for on the stem cell register.

C) National Institute for Health and Care Research (NIHR) Stem Cell Research

- The National Institute for Health and Care Research (NIHR) currently provides £2.1 million for 4 research projects to improve access, better understand outcomes and improved delivery of stem cell transplants and advanced cellular therapies. Three of these projects are relevant to the APPG. Led by NHS Blood and Transplant and Anthony Nolan, two projects will help better understand the impact of ethnicity on unmet need and outcomes of stem cell transplantation. The third project is piloting the concept of collaboration to recruit donors in India to match to UK patients of Indian ancestry as well as patients in India and elsewhere in the world. More detail on each of these projects is provided below:

i) How to improve referral and access to stem cell transplantation through better understanding of inequity, barriers and unmet need, especially in the context of ethnic minority patients.

- This project aims to link relevant data to examine referral and access to transplantation to:
 - identify and evaluate any unmet need for stem cell transplantation (i.e. lack of referral where indicated), and
 - identify and evaluate any inequities in access to transplantation, considering type of transplant and the quality of the donor match
- Ethnicity and other factors such as gender, age, socio-economic status, education and location will be considered in these analyses.
- Improved understanding of unmet need and inequity of access to transplant will inform more effective targeting of resource to donor recruitment and cord blood collection, as well as enabling exploration of the national, regional and local changes required to level up equity of access for minority ethnic and other patients.

ii) Prospective collection and analysis of demographic and patient reported outcome (PROM) data from patients receiving haematopoietic cell transplantation in the UK

- There is growing recognition that inequities in patient outcome and quality of life following haematopoietic cell transplant (HCT) may be due to social and demographic factors. To improve understanding about the impact of social determinants of health on patient outcomes, routine collection of patient demographic status (including age, gender, race, ethnicity, socioeconomic status) and patient-reported outcomes is required.
- This project is a national study, collecting demographic and Quality of Life (QoL) data among HCT recipients using a digital web-based tool hosted by Anthony Nolan.
- In this study, HCT patients are being invited to complete a brief demographic and QoL questionnaire at various timepoints in their transplant journey.
- The findings are intended to inform targeted service improvements to address inequity at both the individual patient level and the system level across NHS transplant services.

iii) Research project to investigate a collaboration on donor recruitment between the Anthony Nolan and the Indian Stem Cell Donor Registry, DATRI

- The India Stem Cell Donor Collaboration is a new study piloting recruitment of stem cell donors in India.
- Recruitment is led by the Indian DATRI registry in partnership with Anthony Nolan. British Asians are the largest ethnic minority population in the United Kingdom (6.25% of the total population).
- The project is funding the recruitment and genotyping of 10,000 stem cell donors in regions of India that match the ancestry of the British Asian population.
- They will be available as donors in India, the UK and globally through the World Bone Marrow Donor Association.

D) NIHR Blood and Transplant Research Units

- The NIHR also co-funds 5 Blood and Transplant Research Units (BTRUs), partnerships between universities and NHS Blood and Transplant, which undertake research to improve the supply of blood, blood products, stem cells, tissues, and organs for transplantation.
- The Precision Cellular Therapeutics BTRU is conducting cord blood research to expand and gene edit the stem cells in cord blood, so they could be used with increased safety in a wider range of adults. This initiative will ultimately drive wider access to cord blood transplant.
- The Donor Health and Behaviour BTRU is researching the factors affecting blood donation behaviour. They have set up the Blood Donors Studies BioResource, a data set containing information about donation practices, patient characteristics and blood samples which can be accessed by other researchers. They are also developing strategies to increase blood donations from ethnic minority communities. This has led to NHSBT changing its messaging aimed at ethnic minority donors to increase awareness of the clinical need for ethnically matched blood.

Availability of key UK support services for stem cell donation

The availability of donors on the UK stem cell registry is only one factor which influences clinical decisions about whether to request a donation from a donor based in the UK. We are aware that limitations in apheresis capacity are causing challenges with stem cell donation and have begun a review to further understand the factors which underlie this. Anthony Nolan have recently opened a new Cell Collection Centre which is expected to significantly improve capacity for stem cell transplant cell collections.

DHSC-led review of apheresis capacity

- Apheresis is a procedure that uses a machine to remove, exchange, collect or treat a specific component from the blood. It is used to harvest stem cells for transplant, to treat conditions like sickle cell disease, and in the preparation of advanced cellular therapies.
- The Government is aware of issues around apheresis capacity within the NHS, impacting patient services including stem cell donations.
- A DHSC led working group has been set up to examine existing apheresis capacity and develop solutions. This working group includes members of the UK stem cell

register, health professionals, and service providers, aiming to develop an evidence base by which strategic decisions around apheresis capacity can be established.

- The group has submitted an internal, interim report to ministers for consideration and is currently working to gather additional data and strengthen the evidence base of this report, before proceeding to publication.



Department
of Health &
Social Care

Parliamentary Under-Secretary of State for Health Innovation and Safety

*39 Victoria Street
London*

From Dr Zubir Ahmed MP

SW1H 0EU

Your Ref: BRA/EF/098

PO-1666967

Bell Ribeiro-Addy MP

By email to: bell.ribeiroaddy.mp@parliament.uk

27 February 2026

Dear Bell,

Thank you for your correspondence of 15 December about transplantation and transfusion.

I appreciate your concerns, and I would like to thank you for raising these important issues. I understand that the All-Party Parliamentary Group on Ethnicity, Transplantation and Transfusion has now received NHS England's written evidence for the inquiry.

Targeted donor recruitment is an important aspect of improving the resilience and inclusivity of the UK's aligned registry. This has been supported previously by stem-cell programme funding from the Department, and NHS Blood and Transplant (NHSBT) and Anthony Nolan continue to target the recruitment of minority ethnic and 'fit panel' donors as part of their routine activities.

However, the number of donors on the registry is not the only factor affecting the timely provision of stem cells to UK patients. The availability and attrition rate of donors once they are selected is also an important part of the donation pathway, as it increases the waiting time for a transplant, which is a key factor in patient outcomes, and affects the number of provisions from UK donors to UK patients. Additionally, there are differences in donor availability between different ethnic groups. Data from the first quarter of 2025 indicates that 72 per cent of white donors go on to donate when selected, compared to 42 per cent of those from minority ethnic backgrounds.

Changing clinical practice to use post-transplant cyclophosphamide has the potential to improve equity of access for UK stem-cell transplant patients, by enabling safer transplantation from a wider range of unrelated and haploidentical donors. The use of younger donors will be an important part of this change.

To ensure the best outcomes for patients and a return on investment in recruitment, the focus of the Department's stem-cell programme funding will be on ensuring donors are engaged and available for donation when asked.

Between April 2022 and March 2025, Anthony Nolan recruited (meaning samples were received from):

- approximately 37,000 male potential donors aged 16-30, of which around 22,000 were supported by the Department's stem-cell programme funding; and
- around 23,000 potential donors from minority ethnicity backgrounds, of which approximately 15,000 were supported by the programme funding.

Over the same period, NHSBT recruited:

- around 36,000 potential donors aged 16-40, of which approximately 13,800 were supported by the Department's stem-cell programme funding; and
- approximately 13,500 potential donors from minority ethnicity backgrounds, of which around 3,000 were supported by the programme funding.

A total of £800,000 of funding, split equally between Anthony Nolan and NHSBT, has been provided through a one-year extension to the Department's stem-cell programme to the end of this financial year.

Anthony Nolan's target for the 2025/26 financial year was to recruit:

- approximately 14,000 young male potential donors, with around 6,000 being supported by the Department's stem-cell programme funding; and
- approximately 7,000 potential donors from minority ethnicity backgrounds, with around 5,000 supported by the programme funding.

NHSBT's target was to recruit:

- approximately 30,000 young potential donors, with around 8,000 being supported by the Department's stem-cell programme funding; and
- 6,000 potential donors from minority ethnicity backgrounds, with around 5,000 supported by the programme funding.

The Department stipulated that recruitment should target the potential donors who are most likely to be selected by clinicians, typically male donors under 30, and minority ethnic donors. As part of the procurement process, the Department specified that prospective suppliers would need to be able to recruit donors (including obtaining informed consent), take necessary samples for genotyping, conduct laboratory analysis and genotyping, and add the genotyped donors to the aligned UK stem-cell registry.

I understand that the apheresis expert group report on capacity in the UK will be published shortly. As the report is currently going through final clearances, however, the Department is unable to share its contents.


With regard to cord banks, there are no plans to substantially increase the inventory size of the public banks in the UK. The focus is on replenishing the inventory with the cord donations that are most likely to be used clinically – that is, those with a high cell count – while maintaining a donation rate of 40 per cent from minority ethnic donors.

The Cord Support Programme has been successful in highlighting the use of cord as a transplant, where it is the most suitable stem-cell source for the patient, through an education programme and advisory service available to all UK transplant centres.

The results of a clinical trial undertaken in the UK have significantly increased the domestic provision of cord transplants for paediatric patients. A follow-on trial for adults has obtained funding from Blood Cancer UK and is in development.

I hope this reply is helpful.

Yours sincerely,



DR ZUBIR AHMED MP
Parliamentary Under-Secretary of State
for Health Innovation and Safety