NHS
Blood and Transplant

Board Meeting in Public
Tuesday, 01 December 2026

Title of Paper	Blood Stocks Update	**Agenda No.**	3.5
Nature of Paper	☐ Official	☒ Official Sensitive	
Author(s)	Gerry Gogarty – Director of Blood Supply Mark Chambers – Director of Donor Experience Lise Estcourt – Medical Director Transfusion Darren Bowen – AD Supply Chain		
Lead Executive	Gerry Gogarty – Director of Blood Supply		
Non-Executive Director Sponsor	N/A		
Presenter(s) at Meeting	Gerry Gogarty – Director of Blood Supply		
Presented for	☐ Approval ☐ Assurance	☐ Information ☒ Update	
Is there a plan to communicate this to the organisation?	☐ Yes ☐ No ☒ Yet to be determined		

Executive Summary

NHSBT continues to maintain blood stocks in an increasingly challenging donation environment. Overall stocks remain above target.

Recent expansion of sickle cell treatment is good news for patients. However, increases in Ro demand places pressure on O Neg and B neg. An urgent and material investment in the collection of Ro blood is required to avoid an inevitable amber and/or red alert for O Neg and B Neg.

A new NHSBT Sickle Cell programme is proposed to focus on the collection of Ro blood. Key to success will be effective donor marketing, expansion of capacity within Black Heritage communities and recruitment collaborations with hospitals treating sickle cell patients.

Previously Considered by

NHSBT Executive Team

Recommendation

The Board is asked to note the pressure that Ro demand is placing on priority blood groups and to support the establishment of the proposed Ro programme.

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

- BD-20 Insufficient Ro supply to meet total demand.
- BD-19 Insufficient Availability of Universal Blood Groups and
- BS-02 Shortage of Blood Components/Inability to meet hospital demand.

Strategic Objective(s) this paper relates to:

☐ Modernising One NHSBT ☒ Optimising Donor Experience and Meeting Demand
☒ Campaigning & Identity ☐ Data, AI and Interoperability ☐ New Treatments

Appendices:	None

EXECUTIVE SUMMARY

The purpose of this paper is to provide a short and focused update on the risk to blood stocks with the requirement to support an expansion in sickle cell treatment.

NHSBT continues to maintain blood stocks in an increasingly challenging donation environment. Overall stocks remain above target; however, O Neg and B Neg inventories remain vulnerable to increasing demand, particularly from continued growth in Ro requirements. Key points to note:

- Despite a series of unprecedented heatwaves this summer, an amber alert has been avoided – to date.
- There is increasing investment in the treatment of sickle cell patients. There is no accommodation for increased collection in the necessary Ro blood to meet this demand. Ro demand has increased by 8% over the past 12-months and by 30% over the last 5-years.
- There is significant “hidden” demand for Ro blood, where some hospitals order O Neg as a substitute, due to the known supply constraints of Ro.
- Collection of Ro blood has increased by 11% over the past 12-months. Whilst an improvement over previous years, this is not sufficient.
- Given the expansion of sickle cell treatment, an urgent and material investment in the collection of Ro blood is required to avoid an inevitable amber and/or red alert for O Neg and B Neg.
- World-wide trends are consistent and there are similar O Neg challenges with large comparable global blood operators.
- A new NHSBT Sickle Cell programme is proposed to focus on the collection of Ro blood. Key to success will be effective donor marketing, expansion of collection capacity into Black Heritage communities and recruitment collaborations with hospitals treating sickle cell patients.

STRATEGIC CONTEXT

Overall red cell demand has been ~2% lower in the past 12-months and is ~4.5% lower than 5-years ago. This masks demand and creates a tension for priority groups:

- 2026/27 O Neg demand was forecasted to be flat, compared to 2025/26. However, year to date (YTD), O Neg issues have been ~4% higher than the same period last year.
- 2026/27 B Neg demand was forecasted to increase by ~1%, compared to 2025/26. However, YTD B Neg issues have been ~5% higher than the same period last year.
- Ro demand has grown ~8% in the past 12-months. In the past 5-years, Ro demand has grown by ~30%.

Despite a series of unprecedented heatwaves this summer, NHSBT has maintained stable supply, improved donor experience, reduced complaints, grown the active Ro donor base and avoided national stock restrictions. Future resilience will depend increasingly on securing participation from priority donors rather than simply increasing appointment capacity.

Over the last 12 to 18 months the organisation has maintained stocks while delivering measurable improvements across donor experience and operational performance, including improvements in donor satisfaction, reductions in complaints, reductions in cancellations, growth in the active Ro donor base and improvements in haemoglobin outcomes.

However, demand is becoming more complex. Growth in Ro demand, continued reliance on O negative blood and pressure within key donor groups mean the challenge is increasingly one of securing the right blood rather than simply collecting more blood.

The Ro supply gap is currently 50.7%; however true demand is unknown. The gap is wider as there is significant “hidden” demand for Ro blood. There is a broad awareness of the supply constraints of Ro blood, and therefore some hospitals directly submit orders for O Neg as a substitute. NHSBT must currently over-collect ~540 O Neg units and ~150 B Neg units every week to meet current known substitution requirements. Forecasts suggest that demand for Ro units will increase by a minimum of 7% year-on-year.

A positive development is that there is investment in improving treatment for sickle cell patients. In June 2025, NHS England announced £9m to expand sickle cell apheresis services across England, fund more specialist treatment centres, train specialist staff, and widen access to automated red blood cell exchange machines. It is estimated that automated cell exchanges can save the NHS nearly £19k per patient each year, with broader estimates putting potential annual savings at up to £12.9m. However there has been no specific funding to increase collection of Ro type units to support this expansion – and an investment in the recruitment and collection of blood from Ro donors is essential to maintain national blood stocks.

The treatment capacity expansion is now being rolled out, for example The Royal London Hospital, Barts successfully increased the number of sickle cell patients it can actively maintain on regular exchange regimes by 50%.

International evidence suggests these challenges are global. Several blood services have issued supply alerts in recent months, while others have invested significantly in new collection infrastructure despite declining donor numbers.

NEXT STEPS – Ro PROGRAMME

NHSBT is proposing the establishment of a programme to reduce this health inequality by increasing Ro collection and creating a platform to achieve future demand growth – supporting the treatment capacity expansion already underway.

It is recognised that delivering the level of increase required in Ro collections would not be achievable without additional funding and a resultant increase in workforce capacity.

A key tenet of the proposed programme is a collaboration with hospitals treating sickle cell patients to align with NHSBT on a joint objective to recruit Ro donors and collect units equivalent to the volume transfused annually in the Trust.

Alongside this, the programme proposes a pump prime investment to pivot collection capacity towards high-potential Black Heritage communities. Donor Network Design analysis

will inform this activity, and investment will be made to support Ro donor base increases in these areas.

The relative costs and expected increases in Ro blood collection need to be considered alongside the wider benefits associated with donor diversity, patient outcomes, reduced supply risk and NHSBT's role as critical national infrastructure.

These plans are being finalised and will shortly be shared with DHSC colleagues.

OTHER OPPORTUNITIES

The most significant opportunities lie in expanding donor availability and improving access to priority blood groups.

These include:

- Strengthened patient blood management and demand reduction initiatives
- Further development of donor genotyping – reduces pressure on Ro.
- Roll-out of post-donation testing nationally – will reduce low haemoglobin deferrals.
- Targeted action to reduce haemoglobin deferrals in Ro donors.
- Possible reintroduction of previously transfused donors (long-term). Dependent on SaBTO.
- Expansion of malaria testing pathways (long-term). Dependent on SaBTO.
- Review of donation frequency.

Collectively, these opportunities have the potential to deliver greater long-term resilience.

CONCLUSION

NHSBT currently maintains resilient overall blood stocks and has performed well in a challenging operating environment. The principal risk to future resilience is the availability of donors with the characteristics required to meet increasingly complex demand. O Neg and B Neg stocks present a significant risk, given the requirement to support sickle cell treatment expansion.

International experience suggests these pressures are likely to persist. Long-term resilience will depend upon a combination of donor growth, targeted recruitment, scientific innovation and clinical demand management.

An increase in the volume of Ro blood collected is urgent, and essential if an amber/red alert is to be avoided.