NHSBT Clinical Services Executive Team

9th September 2020

Transfusion 2024 – Briefing paper

Status: Official

1. Purpose of the Paper

Transfusion 2024 is the next iteration of Transfusion strategy for the NHS in England that follows on from the multi-disciplinary meeting held in 2019; It is a 5-year plan aimed at promoting safe clinical and laboratory transfusion practice for patient care across England. This paper provides an update on the work and gives context to the Board for Transfusion 2024 as collaboration with increased alignment between the National Blood Transfusion Committee (NBTC) and NHSBT.

2. Action requested

The ET is requested to support the planned publication of the Transfusion 2024 Plan as a collaboration between NHSBT and NBTC which provides a steer and overall direction of travel around key activities for safe and appropriate clinical and laboratory transfusion practice. Much of this activity is already underway as indicated in the summary below.

The ET is asked to note the establishment of an NHSBT Change Program to pull the NHSBT aspects of this work together and to provide more details and options for delivery.

It is envisaged that this paper would go to the Board for information but views from the ET would be helpful in this regard.

3. Executive Summary

The Transfusion 2024 symposium was a highly successful multi-professional joint NBTC/NHSBT initiative held in March 2019 attended and supported by Prof Keith Willet and Dame Sue Hill on behalf of NHS England. It was attended by members of the NHSBT Executive Team together with representatives from hospitals, Royal Colleges, professional bodies, regulators, healthcare providers and patients. The primary objective of the symposium was to determine priorities for transfusion care in line with key NHS strategic direction over the next 5 years. It was always anticipated that the recommendations from this Symposium would be published and distributed across the NHS as previous Health Service Circulars have been. The recommendations provide a direction of travel over the next five years, strongly supported by the clinical community. The NBTC and NHSBT Clinical Services Directorate wish to distribute these across the transfusion clinical community with support from NHSE and more widely from NHSBT. There have been various factors such as COVID-19, Brexit etc that have delayed the publication, but we feel that this now needs to be published or the credibility of this work will diminish.

The key recommendations for NHSBT are detailed within the paper. Many of these are already underway and others are to scope pieces of work to understand the benefits e.g. of further integration between NHSBT and hospital Trusts. The R&D recommendations have been included in the proposals for Blood and Transplant Research Units in the future. Whilst there is clearly work to be done under a programme of change led by the Clinical Services Directorate we wish to publicise and distribute these recommendations more widely and to

have the wider support of the ET and Board to do this. The overall progress of this work will be monitored through the NBTC.

4. Background

The NBTC reports into NHS England and, via its highly active Regional Transfusion Committee structure (RTCs), it provides bi-directional exchange of information to all hospitals in England. This also provides an essential framework for NHSBT to liaise closely with key healthcare professionals and professional bodies to influence and promote safe and appropriate use of blood and transfusion practice across the NHS.

This strong partnership between NHSBT, NBTC and the NHS has been clearly evident in supporting responsive two-way communication needed around demand and supply challenges during the COVID-19 pandemic and engaging wide support for UK Convalescent plasma trials.

This foundation of partnership and collaboration between the NBTC and NHSBT is well established and highly clinically valued by the NHSBT customer base; dating back to publication of a first Health Service Circular Better Blood Transfusion in 1998. Subsequent Health Service Circulars followed in, 2002 and 2007 and then Patient Blood Management recommendations published in 2015 that further reduced inappropriate use and delivered further improvements in transfusion safety. Over this period there has been a 25 to 30% reduction in blood use with overall significant cost savings for the NHS.

The Transfusion 2024 symposium was a highly successful multi-professional joint NBTC/NHSBT initiative held in March 2019 attended and supported by Prof Keith Willet and Dame Sue Hill on behalf of NHS England. The symposium was attended by members of the NHSBT Executive Team together with representatives from hospitals, Royal Colleges, professional bodies, regulators, healthcare providers and patients. The primary objective of the symposium was to determine priorities for transfusion care in line with key NHS strategic direction over the next 5 years.

5. Transfusion 2024 Recommendations

The recommendations provide a steer and overall direction of travel around key improvement opportunities for safe and appropriate clinical and laboratory transfusion practice. The recommendations focus on Patient Blood Management, Laboratory Safety and Research and Development. ICT and digitalisation is an essential strand underpinning some key developments essential to improve patient safety and benchmarking appropriate blood use and supporting greater integration between hospitals and NHSBT. The recommendations together with key deliverables are summarised in the table below with the NHSBT led activities in bold. Much activity is already underway highlighting that many of the aims are clearly achievable within the existing framework on the part of hospitals, NHSBT and other professional bodies.

The Clinical Services Directorate will lead on defining a Change Programme, delineating key objectives together with risk and benefits, resources required and clear timelines with defined accountability. Many of the NHSBT activities are underway already (marked with *) or planned for in the applications for Blood and Transplant Research Units (Data Driven Transfusion Practice and genotyped matched blood). The other areas will be pulled together under the Medical Director for Transfusion workplan who will lead this work.

Table 1: Transfusion 2024 – key recommendations

A: Patient Blood Management

	Action	Deliverable	Key Responsibility Other stakeholders
1.	Self-Assessment Develop a transfusion practice self-assessment tool for hospitals to allow benchmarking as an initial step towards external accreditation.	Develop a tool for self-assessment by hospitals/Trusts with plan for pilot and rollout To include compliance with NICE Quality Standards for Transfusion To promote best practice in quantitative and qualitative terms across the healthcare system e.g. triangulation of the Model hospital and Getting it Right First Time (GIRFT) datasets to transfusion performance metrics to improve the visibility of transfusion within the monitoring and quality framework across the NHS	NBTC Trusts NHSE CQC
2.	Resources to support clinical transfusion practice **a) Strengthen support within hospitals and NHSBT for clinical transfusion practice** b) Develop and implement a national competency framework for Transfusion Practitioners	Define minimum recommended levels of Transfusion practitioner staffing and other resources for Hospital Transfusion Teams **NHSBT to review and strengthen support for clinical transfusion practice (including PBM teams, National Comparative Audit programme, Blood Stocks Management Scheme)** Develop a documented competency framework for Transfusion Practitioners with plan for pilot and implementation	NBTC Trusts NHSBT NBTC HEE
3	Inclusion of transfusion in national patient quality and safety initiatives Aim to include where feasible transfusion data in national databases of diseases/outcomes for which transfusion is regularly used.	Review feasibility of inclusion of transfusion data in major surgical and other databases including cardiac surgery and major joint replacement.	NHS England Royal Colleges

B: Transfusion Laboratory Safety

1.	Scientific and technical education and training Review scientist training pathways and programmes to strengthen transfusion content and review mode of delivery of training **Review and strengthen NHSBT provision of scientific and technical training including access and funding mechanisms.** Provision of training resources for all laboratory staff to ensure maintenance of knowledge.	Produce a review of transfusion scientist training (CSO office and HEE) Participate in NHSE/NHSi Healthcare Science Workforce Partnership Board Agree funding with NCG/HEE with support of NBTC Discuss with affiliated bodies	CSO NBTC IBMS; BBTS HEE; NSHCS NHSBT NCG HEE; NSHCS
2.	Laboratory staffing Ensure adequate staffing and skill mix to cover the laboratory clinical workload and complexity at all times, to maintain the Quality Management System effectively and to meet regulatory requirements	Benchmarking of laboratory staffing (seniority, numbers and skill mix) to strengthen business case for additional support where needed.	NHSI NBTC Trusts

		Laboratories to have robust capacity planning to ensure adequate staffing, skill mix and resources for safe and effective delivery of services. Capacity plans must be fully supported by Trust senior management Ensure the safe use of non-Haematology staff especially in Essential Laboratory Services out of hours supported by guidance on education requirements for multi-disciplinary staff	
3.	Integrated services **Undertake pilots of integrated transfusion services between NHSBT RCI and hospital transfusion laboratories including development of the Consultant Clinical Scientist role**	**Completion of two pilots (RCI assist) with reporting to the NBTC and NCG with recommendations for further work*** **Develop and implement a strategy for Consultant Clinical Scientists to take a leadership role in Transfusion***	NHSBT NCG Trusts CSO NBTC NHSBT
4.	Pathology networks NHSi Specialist Transfusion advisory committee to promote implementation of regional transfusion networks with defined standards.	Development of defined standards for laboratory transfusion practice as part of networks with pilot of assessment Inclusion and review of blood usage/wastage data across networks to optimise appropriate use and stockholding e.g. of Group O D negative red cells	NHSI NBTC NHSBT Trusts
5.	Regulatory/Compliance alignment MHRA & UKAS to support collaborative working and reduce the compliance burden for transfusion laboratories	Work towards a draft unified standard	UKAS & MHRA NHSE NBTC
6.	Adverse event reporting Promote a just reporting culture Work with MHRA SABRE group and SHOT to investigate the potential for a single UK wide haemovigilance reporting agency to minimise duplication.	Promote a culture where all staff involved with transfusion are supported in highlighting and reporting adverse events Aim towards a single UK wide haemovigilance reporting agency to minimise duplication.	NHSE Hospitals UK Blood Services

C: Information Technology

1.	Transfusion IT Develop project plans for hospitals and IT suppliers to jointly improve safety and efficiency of transfusion laboratory IT. This should include: Enhancing IT connectivity between hospitals and NHSBT and promoting interoperability in line with the Wachter review [5] and NHSX strategy[6] Collection of data to monitor clinical and laboratory transfusion practice and facilitate benchmarking.	Inclusion of defined standards for hospital transfusion IT within Pathology networks **Develop and implement a strategy for roll out of the vendor managed inventory (VMI) for hospitals** **Pilot electronic requests for NHSBT reference laboratory tests and electronic provision of results from NHSBT to Trusts** **Develop standards for routine collection of data on blood utilisation and feedback to clinical teams**	NHSE/I Trusts NHSBT IT suppliers NBTC BSH Guidelines
2.	Vein to vein electronic tracking Develop a plan to drive the implementation of vein to vein electronic systems from taking the blood sample, blood collection, administration of blood and monitoring of transfused patients.	Develop and implement a strategy for the rollout of electronic tracking in hospitals	NHSE Trusts NBTC

D: Recommendations for further Research and Development

1.	**Data Driven Transfusion Practice** **Determine feasibility of applying big data and machine learning to obtain real time**	**Seek funding to support collection and analysis of large datasets on how blood and components are**	NHSBT Trusts

	data on the whole transfusion process from donor to patient	**being used to facilitate benchmarking of NHS hospitals and predictions of blood component demand.**	
2.	**<u>Component development</u>** **Continue support for component development aligned to patient needs.**	**Work with Regional Transfusion Committee (RTC) chairs to define new components to develop for clinical trials. Agree pathway for component development over the next 5 years. Ongoing close partnership between hospitals and NHSBT towards completion of UK trials on COVID-19 convalescent plasma with translation of findings to patient care***	NHSBT NBTC
3.	**<u>Donor and patient typing</u>** **Model optimal donor and patient typing and implement the most cost-effective systems including genotyping to meet the needs of chronically transfused patients and those difficult to provide with compatible blood**	**Define and develop a pilot of genotypically matched blood for multi-transfused patients. To include a health economic analysis of clinical benefit**	NHSBT Trusts
4.	**<u>Transfusion Research</u>** **Relevant bodies to continue funding and providing advocacy for clinical transfusion research.**	**Perform an options appraisal on the benefits of establishing a clinical trials network in transfusion with the aim of speeding up the delivery of clinical trials of blood components and improving patient outcomes.**	NHSBT Royal Colleges Trusts

Recommendations for NHSBT

Clearly more work is required to define the time periods for the work, the options analyses and financial implications and business cases for any work required. However, it is clear that the wider clinical community agrees this is the direction of travel required to progress outcomes for patients. We recommend that the Transfusion 2024 Plan is distributed to the wider NHS with support from NHSBT, additionally as a next step that the Clinical Services team starts to define what such a change programme over a number of years should look like such that this can be led by the MD for Transfusion once in post.

Authors:
Shubha Allard
Edwin Massey
Catherine Howell
(with support from Cheng-Hock Toh and Jon Cort on behalf of the NBTC)

Responsible NHSBT Director:
Dr Gail Miflin
Chief Medical Officer