Transfusion 2024 update and follow-on Transfusion Transformation Strategy

Introduction

- The **Transfusion 2024** plan *(Allard et al 2021)*[1] outlined key priorities for clinical and laboratory transfusion practice for safe patient care across the NHS. This is based on the outcomes of a multi-professional symposium held in March 2019 organised by the National Blood Transfusion Committee (NBTC) and NHS Blood and Transplant (NHSBT) and supported by NHS England (NHSE).
- The plan built on recommendations of previous Better Blood Transfusion Health Service Circulars with many of the actions outlined being implemented within the regulatory, training, and operational infrastructure and framework already developed within hospitals supported by the NBTC and Regional Transfusion Committees (RTCs).
- Around 2 million units of blood and components are used across hospitals in England to support patients across a wide spectrum of clinical disciplines for adult and paediatric patients including trauma, surgery, cancer, renal, obstetrics, haemoglobinopathy and intensive care.
- There are over 200 hospital transfusion laboratories within ~140 trusts across England with major challenges and concerns around the current delivery of service to support safe patient care.
- The Amber alert around red cell shortages in 2022 and 2024 with ongoing stock fragility has emphasised the need for improved resilience in ensuring adequate blood supply.
- The Infected Blood Inquiry (IBI) report[2] has stated several clear recommendations for improving blood transfusion safety including implementation of Transfusion 2024 recommendations. The **IBI** report specifically states that progress with Transfusion 2024 recommendations needs to be maintained – by assessing progress across the first five years, and determining what the next steps should be, including the need for a further five-year plan.
- Accordingly, we are reviewing progress on key Transfusion 2024 recommendations with development of a follow-on **Transfusion Transformation** plan defining an ongoing clear policy for the many healthcare teams involved to support safe and appropriate use of blood for effective patient care.
- We need to ensure patient focussed care with safe and appropriate blood use delivered by a trained workforce with the required IT support, working in integrated partnerships with specialist NHSBT laboratories, and across pathology networks within the principles of NHS strategy.

Overall areas covered by Transfusion 2024

The T2024 plan produced key priorities as summarised below

Patient Blood Management (PBM)
- Benchmarking for hospitals
- Resources to support clinical transfusion practice
- Transfusion practitioner professional development

Information technology
- IT enabled safety
- IT enabled efficiency
- IT enabled accountability

Hospital transfusion laboratory safety
- Scientific technical education and training
- Laboratory staffing and integration
- Pathology networks and regulatory alignment

Research and innovation
- Use of ‘big data’ / machine learning
- Component development
- Donor and patient red cell genotyping
- Transfusion research

References:

1. Transfusion 2024: A 5-year plan for clinical and laboratory transfusion in England. Allard S, Cort J, Howell C, Sherliker S, Miflin G, Toh CH Transfusion Medicine.2021;31:400–408

2. Infected Blood Inquiry https://www.infectedbloodinquiry.org.uk/

Transfusion Transformation Symposium and Strategy

The Transfusion Transformation Symposium held on June 10th 2024 in partnership between NBTC, NHSBT and NHSE was attended by ~120 delegates with wide inclusion of healthcare professionals, colleges, other organisations and patient groups. Feedback received from delegates indicated approval for focussing on three areas in a follow up strategy with mutual dependencies between these themes.

1. The appropriate use of blood	Anticipated scope
• Preventing anaemia	• *Pre-operative anaemia* • Tackling pre-operative iron deficiency anaemia; comparative data collection • *Obstetric anaemia* • Health impact on mums and babies and improving care • *Medical anaemia* • Key steps to promoting appropriate blood use
a. Promoting alternatives to blood – tranexamic acid	• Comparative data collection on tranexamic use in surgery and promoting implementation as a low-cost measure
b. Ensuring shared decision making	• Provision of patient information on transfusion and documentation of valid consent
	• National Blood Transfusion Committee transfusion indication codes (2024) to promote evidence-based practice

2. Transfusion digital interoperability	Anticipated scope
a. Hospital Electronic Blood Management Systems	Benefits of implementation of systems to support safe and appropriate use of blood • Electronic systems for patient identification, blood sample collection and blood administration • Blood fridges with integrated electronic tracking ideally with remote blood issue capability • Electronic blood ordering with clinical decision support • Electronic temperature monitoring for blood component storage devices
b. Blood Data Integration	Benefits of broad system digital connectivity • Data linkage to NHSBT to support stock management • Data linkage across networks • Better matching of blood components from donor to patient • Shared care records • Better data to understand patient outcomes following transfusion
c. Diagnostic Capability	Benefits of automating process of diagnostic tests for transfusion • Electronic requesting and reporting for all pathology tests referred to NHSBT

3. Stabilising and strengthening the transfusion workforce	Anticipated scope
a. Leadership and governance	• Consultant clinical or scientific leadership of transfusion • Organisational culture and wellbeing • Transfusion workforce metrics
b. Workforce capacity	• Levels of staffing within transfusion laboratories • Adequate skill mix of scientific and clinical roles • National framework for the role of the transfusion practitioner
c. Training	• Transfusion education – quality, scope and accessibility of training and education

	• Clinical and scientific career development and progression

The table below summarises broad alignment of the Transfusion Transformation Strategic themes with IBI recommendation 7 Patient Safety – Blood Transfusion.

IBI Recommendation	Transfusion Transformation Strategic Theme
7a Tranexamic acid 7a (i) In England	1. The appropriate use of blood
7a (iii) Standardising and benchmarking transfusion performance between hospitals in order to deliver better patient blood management.	1. The appropriate use of blood
7b Progress in implementation of the Transfusion 2024	All themes
7c Transfusion laboratories should be staffed (and resourced)	3. Stabilising and strengthening the transfusion workforce
7d undergraduate and postgraduate training adequately trained in transfusion	3. Stabilising and strengthening the transfusion workforce
7e all NHS organisations implement recommendations of SHOT reports	All themes
7f outcome of every transfusion 7f (i) That a framework established for recording outcomes for recipients of blood components. given.	2. Transfusion digital interoperability
7f (ii) Bespoke funding for digital transformation to cover the setting up and operation of this framework	2. Transfusion digital interoperability
7f (iii) Funding for the provision of enhanced electronic clinical systems in relation to blood transfusion be regarded as a priority across the UK.	2. Transfusion digital interoperability

We are now developing the Transfusion Transformation Strategy aligned to IBI recommendations with wider stakeholder consultation and will aim to complete this by April 2025.